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WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

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MEMORANDUM

SUBJECT: REVISED OCCUPATIONAL HANDLER EXPOSURE ASSESSMENT AND RECOMMENDATIONS FOR THE REREGISTRATION ELIGIBILITY DECISION DOCUMENT FOR AZINPHOS METHYL

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Please find the review azinphos methyl

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EXECUTIVE SUMMARY

This is a revision of the original *Occupational Handler Residential Exposure Assessment and Recommendations Document for Azinphos methyl*, (J. Arthur May 15, 1997). This chapter

has been revised to address changes in the application rate for agricultural or commercial activities in handler exposure assessments.

This document contains the occupational handler exposure assessment for agricultural uses of azinphos methyl. **There are no registered uses of azinphos methyl for recreational, residential or other public (non-occupational) settings.** The document also considers potential risk mitigation measures such as personal protective equipment (PPE) and engineering controls for handlers. The scope of the document covers all registered azinphos methyl uses including WPS (Worker Protection Standard) uses for agricultural crops (e.g., citrus, vegetable crops, tree fruits, etc.), along with outdoor ornamental uses.

Azinphos methyl, O,O-Dimethyl S-[(4-oxo-1,2,3-benzotriazin-3(4H)-yl)methyl]phosphorodithioate is an organophosphate insecticide. Azinphos methyl is formulated as a liquid (22.2 percent active ingredient), a manufacturing product (88.1 percent active ingredient), and a wettable powder (35.0 to 50.0 percent active ingredient). All wettable powder formulations are contained in water-soluble packaging.

For the short-term dermal exposure and risk assessments the toxic endpoint selected was based on erythrocyte cholinesterase inhibition from a 7-day dermal absorption study in rats (NOAEL = 0.56 mg/kg/day and LOAEL = 5.6 mg/kg/day). Because the endpoint selected for short-term risk assessment was based on a study using dermal doses of azinphos methyl, no correction for percent of azinphos methyl absorbed through the skin was necessary. For intermediate-term dermal exposure and risk assessments, the NOAEL from the 1-year chronic feeding study in dogs was selected (0.149 mg/kg/day). Because the endpoint selected for intermediate-term risk assessment was based on a study using oral doses of azinphos methyl, a dermal absorption factor of 41.7 percent was applied to the NOAEL selected for the intermediate-term assessment. For inhalation exposure (any time period), the endpoint selected was a NOAEL (0.32 mg/kg/day) based on inhibition of plasma and erythrocyte cholinesterase at a LOAEL of 0.0047 mg/L from a 90-day inhalation toxicity study. An uncertainty factor of 100 was used for all of the occupational (non-dietary) exposure assessments.

Guideline studies for acute toxicity indicate that the technical grade of azinphos methyl is classified as category I for acute oral toxicity, category I for acute dermal toxicity, category II for inhalation toxicity, category IV for primary eye irritation, category IV for primary skin irritation, and is classified as a skin sensitizer.

At the September 1993 meeting of the RfD/Peer Review Committee, azinphos methyl was classified as a "**not likely**" human carcinogen. This classification was based on the lack of evidence of carcinogenicity in male and female CD-1 mice (MRID No. 00147895) and in male and female Wistar rats (MRID No. 41119901). In both studies, the highest dose tested was considered adequate for carcinogenicity testing. The HIARC concurred with these conclusions and re-affirmed the classification.

Field workers exposed to residues of azinphos methyl may experience declines in red

blood cell cholinesterase. In the exposure monitoring studies examined for this review none of the workers reported ill effects that could be directly attributed to cholinesterase inhibition. Poison Control Centers continue to report symptomatic cases due to azinphos methyl at a rate of about 16 cases per year.

Pesticide Handlers Exposure Database (PHED) Version 1.1, was used to assess potential exposures resulting from handling and applying azinphos methyl. Potential exposures and internal doses were calculated using unit exposures (i.e., normalized to amount of active ingredient handled - mg/lb ai handled). The amount of azinphos methyl assumed handled per day was derived from the various application rates and the number of acres that could be applied in a single day. Dermal and inhalation margins of exposure (MOEs) are presented.

Azinphos methyl is applied to 17 different crop groups. The example given below uses the crop group pome fruits because application on apples represent the highest amount used for this chemical. Similar procedures have been utilized to calculate the risk for the other crop groups.

Total short-term handler exposure scenarios (i.e., dermal and inhalation routes) for pome fruits (apple, pear, crabapple, quince) resulted in MOEs ranging from less than 1 to 480. A total of 20 MOEs were calculated to cover the various application rates assessed in each scenario. Based on the maximum level of protection (e.g., various levels of PPE or engineering controls) 7 of the MOEs are estimated to be greater than 100. Total short- term risks for other crop grouping are also summarized in Tables 5 through 21.

The results of the total intermediate-term handler assessments for pome fruits (apple, pear, crabapple, quince) indicate that all potential exposure scenarios provide at least one application rate with a total MOE(s) greater than or equal to 100 at either the maximum PPE (i.e., long pants, long sleeved shirts, and chemical resistant gloves while using open systems) or using engineering controls (i.e., closed systems). In the majority of cases, it is dermal exposure rather than the inhalation exposure driving the total MOEs. More specifically, the MOEs for all the intermediate- term scenarios range from 1 to 320. In total, 20 MOEs were calculated for the various application rates. Based on the maximum level of protection (i.e., various levels of PPE or engineering controls) 4 MOEs are greater than 100. Total intermediate- term risks for other crop grouping are also summarized in Tables 5 through 21.

1.0 BACKGROUND

Purpose

In this document, which is for use in EPA's development of the azinphos methyl Reregistration Eligibility Decision Document (RED), EPA presents the results of its review of the potential human health effects of occupational exposure to azinphos methyl.

1.1 Summary of Toxicity Concerns Relating to Agricultural Exposures

Acute Toxicology Categories

Table 1 presents the acute toxicity categories as outlined in the Hazard Identification Document (April 20, 1998).[1]

Table 1: Acute Toxicity Categories for Azinphos methyl

Guideline No.	Study Type	MRID #(S).	Results	Toxicity Category
81-1	Acute Oral (Rat)	00155002	LD_{50} =4.6 mg/kg% 4.4 mg/kg&	I
81-2	Acute Dermal (Rabbit)	40280102	LD_{50} =>2000 mg/kg	III
81-2	Acute Dermal (Rat)	00155003	LD_{50} =200-250 mg/kg% 155 mg/kg&	I
81-3	Acute Inhalation (Rat)	40280103	LC_{50} = >0.21mg/L	II
81-4	Primary Eye Irritation (Rabbit)	43337501	No ocular effects at 48 hrs.	III
81-5	Primary Skin Irritation (Rabbit)	43337101	Non-irritating	IV
81-6	Dermal Sensitization (Guinea Pig)	41064401	Sensitizer	N/A

Other Endpoints of Concern

The report of the Hazard Identification Assessment Review Committee (HIARC)[1] for azinphos methyl, dated April 20, 1998, identified toxicological endpoints of concern for azinphos methyl. The endpoints and associated uncertainty factors used in assessing the risks for azinphos methyl are presented in Table 2.

Table 2. Summary of Toxicological Endpoints for Azinphos methyl Risk Assessments			
EXPOSURE SCENARIO	DOSE (mg/kg/day)	ENDPOINT	STUDY
Short-Term (Dermal)	Dermal NOAEL = 0.56 mg/kg/day	Erythrocyte cholinesterase inhibition.	7-day Dermal Absorption Rat
	MOE = 100		
Intermediate-Term (Dermal)*	Oral NOAEL =0.15 mg/kg/day	Erythrocyte cholinesterase inhibition.	1-Year Toxicity-Dog
	MOE = 100		
Long-Term (Dermal)	Not Applicable	Not Applicable	Not Applicable
Inhalation (Any Time Period)	NOAEL= 0.32 mg/kg/day	Plasma and erythrocyte cholinesterase inhibition.	90-Day Inhalation Rat
	MOE = 100		

* Because the endpoint selected for intermediate-term risk assessment was based on a study using oral doses of azinphos methyl, a dermal absorption factor of 41.7% was applied to the NOAEL selected for the intermediate-term assessment

1.2 Summary of Use Patterns and Formulations

At this time products containing azinphos methyl are intended for **occupational** use only. Occupational uses include **Terrestrial food and feed crops**: Alfalfa, clover, almonds, apple, beans, blackberry, blueberry, boysenberry, broccoli, Brussels spouts, cabbage, cantaloup, cauliflowers, celery, cherry, citrus fruit, cranberry, cucumber, eggplant, filberts (hazelnut), grapes, honeydew melon, loganberry, melons, nectarine, onion, parsley, pastures, peach, pecan, pepper, pistachio, plum, potato, prune, quince, raspberry, spinach, strawberry, tomato, walnut and watermelon. Based on the results of a 1994 Bayer Market Research crop/pest survey, the most significant uses are for **apples/pears** (35%); **almonds** (8%); **potatoes** (6%), and; **citrus** (4%). **Terrestrial Non-food Crops** include: Cotton, ornamental plants, and forestry uses (trees). Based on the results of a 1994 Bayer Market Research crop/pest survey, the most significant of these is for **cotton** (35%).

Formulation types and percent active ingredient

Azinphos methyl is formulated as a liquid (22.2 percent active ingredient), a manufacturing product (88.1 percent active ingredient), and a wettable powder (35.0 to 50.0 percent active ingredient). All wettable powder formulations are contained in water-soluble packaging.

Registered use sites, application rates and frequency of application

Table 3 presents information provided to HED by Special Review Reregistration Division (SRRD) on current registered use sites and application rates for azinphos methyl. HED has not reviewed any of the current labels and therefore based this assessment on the information provided by SRRD. The crop grouping for the assessment of azinphos methyl used the crop grouping system developed by Markle, et.al[2]. The grouping is based on cultural practices, leaf size, leaf shape and type of pests attracted to the plants. Azinphos methyl can be applied to agricultural crops from early season up to harvest time. This assessment covers the range of application rates and various types of equipment used to apply azinphos methyl.

Table 3: Use Patterns and Application Rate for Azinphos methyl

Use Site		Application Rate Range lb ai/acre
Crop Grouping	**Specific Crop**	
Roots and Tuber Vegetable	Potato	0.375-0.75
Legume Vegetable	Bean Succulent, Bean Snap	0.25-0.5
Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	1.25-2.0
Pome Fruits	Apple, Pear, Crabapple, Quince	1.0-1.5
Stone Fruits	Cherry	0.75
	Nectarine, Peach, Plum, Prune (low rates)	0.875-1.125
	Nectarine, Peach, Plum, Prune (high rates)	1.5-2.0
Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	0.25-0.5
	Blueberry	0.5-0.75
	Cranberry	0.5-1.0
Small Fruits	Grapes	075-1.0
Tree Nuts	Almond, Filbert, Pecan, Walnut	1.5-2.0
	Pistachios	2.5
Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	0.25-0.75
Oil Seed	Cotton	0.125-0.5
Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	0.125-0.75
Fruiting Vegetables	Pepper, Eggplant	0.375-0.5
	Tomato	0.375-1.5
Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	0.375-0.5
Bulb Vegetables	Dry bulb Onion, Green Onion	0.5-0.75

Leafy Vegetables	Celery, Spinach, Parsley	0.375-0.5
rnamental Plants	Nursery Stock	0.375-2.0
Micellaneous	Southern Pine Seed Orchards	1.5

All sites registered for both emulsifiable concentrate (EC) and wettable powder (WP) formulations, except parsley (WP only), pistachios (WP only) and nursery stock (WP only).

1.3 Methods and Types of Equipment Used for Mixing/Loading/Applying

The following use patterns are associated with the application equipment:

- Aerial (spray) Equipment: foliar applications to fruit/nut trees, field crops (e.g., alfalfa, cotton) vegetable crops, roots and tuber vegetable (e.g., carrot, sugar beet) .
- Chemigation Equipment: Roots and vegetable (e.g., potatoes) and field crops. The exposure to the handlers using chemigation equipment is represented by the mixer/loader and the amount handled is assumed to be equivalent to that of the aerial applications.
- Groundboom Equipment: fruit/nut orchard floors, field crops, cotton, and vegetable crops.
- Airblast Equipment: fruit/nut/ornamental tree foliage.
- The use of hand held equipment voluntarily cancelled by the registrants.

1.4 Incident reports

Since the review of azinpho smethyl incident reports dated August 21, 1997, additional pertinent on Poison Control Center information and cholinesterase monitoring data have been found. The earlier review reported 39 occupational and 76 non-occupational symptomatic cases due to exposure to azinphosmethyl (as a single exposure rather than exposure to multiple products) between 1985 and 1992. An additional four years of data covering 1993-1996 found another 14 occupational and 49 non-occupational symptomatic cases due to azinphos methyl. Overall there does not appear to be any trend from the earlier years to the 1993-1996 time period, though a decline in occupational cases and an increase in non-occupational cases is suggested. However, trends in Poison Control Center data can be affected by the changes in participation by individual centers over the years. Typically, non-occupational exposures occur when bystanders are exposed to field residue or spray drift.

Additional information has been obtained concerning exposures to azinphos methyl that included measurements of blood cholinesterase levels[3]. This information is summarized below.

California accessed medical monitoring records for 542 agricultural pesticide applicators under medical supervision in 1985 for exposure to the more toxic cholinesterase-inhibiting organophosphate and carbamate pesticides (Ames et al. 1987, 1989). In California, cholinesterase monitoring is required for all pesticide applicators who handle Toxicity Category I or II organophosphate or carbamate pesticides for 30 hours or more in any 30- day period. To be

included in the survey, the worker had to have at least one pre-exposure (baseline) cholinesterase measurement and at least one exposure value (mid-season). A data-call-in was issued by the California Department of Food and Agriculture and local Agricultural Commissioners through pesticide application firms to their medical supervisors. Follow up letters were sent and phone calls made to employers, physicians, and laboratories performing tests, but significant under reporting is likely to have occurred. Therefore, these workers may not be representative of all workers undergoing medical monitoring in California. However, they do represent exposure effects verified by medical laboratories. Cholinesterase activity depression of 20 percent or more below baseline was observed in 127 or 23 percent of the 542 workers. Depression of 20 percent or more below baseline represents strong evidence of exposure (Gallo and Lawryk 1991).

Specific pesticide exposure was available for 94 of the 127 cases, based on usage records for the previous two weeks. Of these, 31 percent had been exposed to mevinphos, 21 percent to methomyl, and 21 percent to parathion, the three leading pesticides responsible for cholinesterase inhibition. Of the 94 cases with inhibition, 11% had exposure in the past two weeks to azinphos methyl. Note that many of the workers were exposed to two or more pesticides during the two weeks before they had cholinesterase depression of 20% or more. Twelve of the workers in this study were reported to have pesticide-related illnesses by their physicians. These data demonstrate that agricultural workers, who mix, load and apply the more toxic pesticides are subject to significant levels of exposure despite the considerable restrictions in place to prevent exposure.

California has maintained a Pesticide Illness Surveillance Program with consistent data collection procedures since 1982 (Data tabulations provide by Louise Mehler,M.D., California EPA). From 1982 through 1996 there were 63 illnesses (with a possible, probable or definite relationship). In 12 of these cases, azinphos methyl was considered the primary pesticide responsible for poisoning. Of the 63 cases with some exposure to azinphosmethyl, 22 (35%) had below normal levels of cholinesterase or evidence of a marked increase in cholinesterase (20% or more) subsequent to their exposure. Of the 12 cases where azinphos methyl was determined to be the primary cause of poisoning, five (42%) had evidence of cholinesterase depression. The evidence consisted of cholinesterase depression below laboratory normal values in three of the five cases and subsequent increases in cholinesterase of 40% or more reported in two of the five.

A study of 20 California peach harvest workers was conducted to test different biomarkers of exposure (McCurdy et al. 1994). Cholinesterase measurements were taken 6 days prior to exposure, on the third day of exposure, and 44 days after initial exposure. Thirty days prior to exposure, azinphos methyl had been applied to study orchards at a rate of 1.5 pounds per acre. The re-entry period for azinphos methyl in California is 14 days. In comparison with baseline median values, red blood cell cholinesterase values decreased 7% after 3 days of exposure and 19% over the 6-week harvesting season. The higher reduction in cholinesterase at the end of the study rather than on day 3 of exposure was unexpected and thought to be due to an improper handling of samples collected on day 3. This study did not examine health outcomes in the workers.

A similar study of peach harvesters in California was reported by Schneider et al. 1994. In

this study 23 harvesters (exposed) and 10 sorters (considered to have minimal exposure) had baseline cholinesterase levels taken and then entered an orchard 51 days after an application of 1.5 pound per acre of azinphos methyl. The reduction in plasma cholinesterase was not significant when harvesters were compared to sorters. However, red blood cell cholinesterase values for harvesters were significantly below those of sorters for two post-exposure blood draws as measured by three testing methods. Compared to their baseline levels exposed harvesters experienced a 10-20% decline in red blood cell cholinesterase. No symptoms of organophosphate poisoning were reported by any of the workers.

Two studies reported in the late 1970s also examined field workers exposed to azinphos methyl in California. In a study reported by Kraus et al. (1977) 21 peach thinners were monitored who entered the orchard 12-18 hours after spraying. A 15% decline of whole blood cholinesterase was reported over the five days of the study. There were no clinical signs of organophosphate poisoning. Richards et al. (1978) reported on a similar study of peach thinners. In this study eight workers were exposed thinning peaches in a field treated with azinphos methyl and experienced a 8% decline in red blood cell cholinesterase. No workers reported signs of organophosphate poisoning.

2.0 OCCUPATIONAL EXPOSURES

2.1 Handler Exposures & Assumptions

EPA has determined that there are potential exposures to mixers, loaders, applicators, and other handlers during usual use-patterns associated with azinphos methyl. Based on the use patterns and potential exposures described above, 10 major agricultural exposure scenarios are identified in this document to represent the extent of azinphos methyl uses. The use of hand- held equipment has been voluntarily cancelled by the registrants.

- mixing/loading liquids for aerial/chemigation application;
- mixing/loading liquids for groundboom application;
- mixing/loading liquids for airblast sprayer application;
- mixing/loading wettable powders for aerial application/chemigation irrigation;
- mixing/loading wettable powders for groundboom application;
- mixing/loading wettable powders for airblast sprayer application;
- applying sprays with fixed-wing aircraft;
- applying sprays using a groundboom sprayer;
- applying sprays using an airblast sprayer;
- flagging during aerial application (sprays).

In most cases, HED assesses the exposure and risk to mixer/loaders and applicators separately for tractor drawn applications (i.e., airblast, groundboom, and granular spreaders) in the RED chapter. This practice has evolved, not because it is believed that they are always separate job functions, but rather because of the limited amount of information regarding these practices along with limited exposure data.

For the occupational RED chapter process, HED has adopted a methodology to present the risks separately for some scenarios and combine others. For equipment such as fixed-wing-aircraft, groundboom tractors, and airblast sprayers the applications are assessed separately from the individual who mixes and loads the formulated product. HED assumes that the pilots are rarely involved in the mixing/loading. By separating the two job functions, HED can determine the most appropriate PPE or engineering control without requiring the handler to wear PPE throughout the entire workday or engineering controls that are not needed.

The potential handler exposures are assessed in this RED chapter using the toxicological endpoints and uncertainty factors associated with the active ingredient. Therefore, the PPE and engineering controls are determined by the assessment of the active ingredient and not the currently required risk mitigation measures on azinphos methyl labels. This distinction of determining risk mitigation measures based on the active ingredient instead of the label required PPE is also important because of the nature of the end-use products. For example, some end-use products require additional PPE that are not necessary for the active ingredient because of the end-use product's potential for eye and/or skin irritation based on inerts. Conversely, the Agency does not want to mandate additional PPE (e.g., heat stress issues) if it is not required based on the endpoint and uncertainty factors. There are some PPE, such as chemical-resistant aprons and/or head gear, that the Agency uses as qualitative measures because there are no recognized protection factors (PF) to assess their effectiveness. The Agency's risk managers require these types of PPE as additional mitigation. For example, chemical-resistant aprons are often required to protect mixer/loaders from accidental spills.

2.1.1 Summary of Occupational Handler Exposures

Table 4 presents the exposure scenarios, application rates, and area (i.e., acres) potentially treated that have been used in the exposure calculations. Azinphos methyl labels include a multitude of uses and a wide range of application rates. Therefore, the rates presented in Table 4 are the entire range used to evaluate exposure associated within each scenario.

Since there were no chemical-specific exposure data to assess the potential handler exposure to azinphos methyl, PHED V1.1[4] has been used to assess the exposure scenarios.

PHED was designed by a Task Force of representatives from the U.S. EPA, Health Canada, the California Department of Pesticide Regulation, and member companies of the American Crop Protection Association. PHED is a software system consisting of two parts -- a database of measured exposure values for workers involved in the handling of pesticides under actual field conditions and a set of computer algorithms used to subset and statistically summarize the selected data. Currently, the database contains values for over 1,700 monitored individuals (i.e., replicates).

Users select criteria to subset the PHED database to reflect the exposure scenario being evaluated. The subsetting algorithms in PHED are based on the central assumption that the magnitude of handler exposures to pesticides is primarily a function of activity (e.g.,

mixing/loading, applying), formulation type (e.g., wettable powders, granulars), application method (e.g., aerial, groundboom), and clothing scenarios (e.g., gloves, double layer clothing).
Once the data for a given exposure scenario have been selected, the data are normalized (i.e., divided by) by the amount of pesticide handled resulting in standard unit exposures (milligrams of exposure per pound of active ingredient handled). Following normalization, the data are statistically summarized. The distribution of exposure values for each body part (e.g., chest, upper arm) is categorized as normal, lognormal, or "other" (i.e., neither normal nor lognormal). A central tendency value is then selected from the distribution of the exposure values for each body part. These values are the arithmetic mean for normal distributions, the geometric mean for lognormal distributions, and the median for all "other" distributions. Once selected, the central tendency values for each body part are composited into a "best fit" exposure value representing the entire body.

Table 4: Exposure Variables for Agricultural Uses of Azinphos methyl

Exposure Scenario	Crop Group	Crop	Application Rates (lb ai/acre)	Daily Acres Treated
Mixer/Loader Exposure				
Mixing/loading liquids for aerial/chemigation application	Roots and Tuber Vegetable	Potato	0.375-0.75	350
	Legume Vegetable	Bean Succulent, Bean Snap	0.25-0.5	
	Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	1.25-2.0	
	Pome Fruits	Apple, Pear, Crabapple, Quince	1.0-1.5	
	Stone Fruits	Cherry	0.75	
		Nectarine, Peach, Plum, Prune (low rates)	0.875-1.125	
		Nectarine, Peach, Plum, Prune (high rates)	1.5-2.0	
	Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	0.25-0.5	
		Blueberry	0.5-0.75	
		Cranberry	0.5-1.0	
	Small Fruits	Grapes	075-1.0	
	Tree Nuts	Almond, Filbert, Pecan, Walnut	1.5-2.0	
	Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	0.25-0.75	1200 (alfalfa)
	Oil Seed	Cotton	0.125-0.5	1200
	Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	0.125-0.75	350

Table 4: Exposure Variables for Agricultural Uses of Azinphos methyl				
Exposure Scenario	Crop Group	Crop	Application Rates (lb ai/acre)	Daily Acres Treated
	Fruiting Vegetables	Pepper, Eggplant	0.375-0.5	
		Tomato	0.375-1.5	
	Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	0.375-0.5	
	Bulb Vegetables	Dry bulb Onion, Green Onion	0.5-0.75	
	Leafy Vegetables	Celery, Spinach	0.375-0.5	
	Micellaneous	Southern Pine Seed Orchards	1.5	
Mixing/loading liquids for groundboom application	Roots and Tuber Vegetable	Potato	0.375-0.75	80
	Legume Vegetable	Bean Succulent, Bean Snap	0.25-0.5	
	Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	0.25-0.5	
		Blueberry	0.5-0.75	
		Cranberry	0.5-1.0	
	Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	0.25-0.75	200
	Oil Seed	Cotton	0.125-0.5	
	Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	0.125-0.75	80
	Fruiting Vegetables	Pepper, Eggplant	0.375-0.5	
		Tomato	0.375-1.5	
	Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	0.375-0.5	
	Bulb Vegetables	Dry bulb Onion, Green Onion	0.5-0.75	
	Leafy Vegetables	Celery, Spinach,	0.375-0.5	
Mixing/loading liquids for airblast sprayer application;	Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	1.25-2.0	20 &40
	Pome Fruits	Apple, Pear, Crabapple, Quince	1.0-1.5	
	Stone Fruits	Cherry	0.75	
		Nectarine, Peach, Plum, Prune (low rates)	0.875-1.125	
		Nectarine, Peach, Plum, Prune (high rates)	1.5-2.0	
	Small Fruits	Grapes	075-1.0	

Table 4: Exposure Variables for Agricultural Uses of Azinphos methyl				
Exposure Scenario	Crop Group	Crop	Application Rates (lb ai/acre)	Daily Acres Treated
	Tree Nuts	Almond, Filbert, Pecan, Walnut	1.5-2.0	
Mixing/loading wettable powders for aerial application/chemigation irrigation	Roots and Tuber Vegetable	Potato	0.375-0.75	350
	Legume Vegetable	Bean Succulent, Bean Snap	0.25-0.5	
	Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	1.25-2.0	
	Pome Fruits	Apple, Pear, Crabapple, Quince	1.0-1.5	
	Stone Fruits	Cherry	0.75	
		Nectarine, Peach, Plum, Prune (low rates)	0.875-1.125	
		Nectarine, Peach, Plum, Prune (high rates)	1.5-2.0	
	Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	0.25-0.5	
		Blueberry	0.5-0.75	
		Cranberry	0.5-1.0	
	Small Fruits	Grapes	075-1.0	
	Tree Nuts	Almond, Filbert, Pecan, Walnut	1.5-2.0	
		Pistachios	2.5	
	Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	0.25-0.75	1200 (alfalfa)
	Oil Seed	Cotton	0.125-0.5	1200
	Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	0.125-0.75	350
	Fruiting Vegetables	Pepper, Eggplant	0.375-0.5	
		Tomato	0.375-1.5	
	Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	0.375-0.5	
	Bulb Vegetables	Dry bulb Onion, Green Onion	0.5-0.75	
	Leafy Vegetables	Celery, Spinach, Parsley	0.375-0.5	
	Ornamental Plants	Nursery Stock	0.375-2.0	
	Micellaneous	Southern Pine Seed Orchards	1.5	

Table 4: Exposure Variables for Agricultural Uses of Azinphos methyl				
Exposure Scenario	Crop Group	Crop	Application Rates (lb ai/acre)	Daily Acres Treated
Mixing/loading wettable powders for groundboom aplication	Roots and Tuber Vegetable	Potato	0.375-0.75	80
	Legume Vegetable	Bean Succulent, Bean Snap	0.25-0.5	
	Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	0.25-0.5	
		Blueberry	0.5-0.75	
		Cranberry	0.5-1.0	
	Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	0.25-0.75	200
	Oil Seed	Cotton	0.125-0.5	
	Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	0.125-0.75	80
	Fruiting Vegetables	Pepper, Eggplant	0.375-0.5	
		Tomato	0.375-1.5	
	Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	0.375-0.5	
	Bulb Vegetables	Dry bulb Onion, Green Onion	0.5-0.75	
	Leafy Vegetables	Celery, Spinach, Parsley	0.375-0.5	
	Ornamental Plants	Nursery Stock	0.375-2.0	
Mixing/loading wettable powders for airblast sprayer application	Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	1.25-2.0	20 &40
	Pome Fruits	Apple, Pear, Crabapple, Quince	1.0-1.5	
	Stone Fruits	Cherry	0.75	
		Nectarine, Peach, Plum, Prune (low rates)	0.875-1.125	
		Nectarine, Peach, Plum, Prune (high rates)	1.5-2.0	
	Small Fruits	Grapes	075-1.0	
	Tree Nuts	Almond, Filbert, Pecan, Walnut	1.5-2.0	
		Pistachios	2.5	
	Ornamental Plants	Nursery Stock	0.375-2.0	
Applicator Exposure				

Table 4: Exposure Variables for Agricultural Uses of Azinphos methyl				
Exposure Scenario	Crop Group	Crop	Application Rates (lb ai/acre)	Daily Acres Treated
Applying sprays with fixed-wing aircraft	Roots and Tuber Vegetable	Potato	0.375-0.75	350
	Legume Vegetable	Bean Succulent, Bean Snap	0.25-0.5	
	Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	1.25-2.0	
	Pome Fruits	Apple, Pear, Crabapple, Quince	1.0-1.5	
	Stone Fruits	Cherry	0.75	
		Nectarine, Peach, Plum, Prune (low rates)	0.875-1.125	
		Nectarine, Peach, Plum, Prune (high rates)	1.5-2.0	
	Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	0.25-0.5	
		Blueberry	0.5-0.75	
		Cranberry	0.5-1.0	
	Small Fruits	Grapes	075-1.0	
	Tree Nuts	Almond, Filbert, Pecan, Walnut	1.5-2.0	
		Pistachios	2.5	
	Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	0.25-0.75	1200 (alfalfa)
	Oil Seed	Cotton	0.125-0.5	1200
	Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	0.125-0.75	350
	Fruiting Vegetables	Pepper, Eggplant	0.375-0.5	
		Tomato	0.375-1.5	
	Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	0.375-0.5	
	Bulb Vegetables	Dry bulb Onion, Green Onion	0.5-0.75	
	Leafy Vegetables	Celery, Spinach, Parsley	0.375-0.5	
	Ornamental Plants	Nursery Stock	0.375-2.0	
	Micellaneous	Southern Pine Seed Orchards	1.5	
Applying sprays using a groundboom sprayer	Roots and Tuber Vegetable	Potato	0.375-0.75	80
	Legume Vegetable	Bean Succulent, Bean Snap	0.25-0.5	

Table 4: Exposure Variables for Agricultural Uses of Azinphos methyl				
Exposure Scenario	Crop Group	Crop	Application Rates (lb ai/acre)	Daily Acres Treated
	Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	0.25-0.5	
		Blueberry	0.5-0.75	
		Cranberry	0.5-1.0	
	Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	0.25-0.75	200
	Oil Seed	Cotton	0.125-0.5	
	Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	0.125-0.75	80
	Fruiting Vegetables	Pepper, Eggplant	0.375-0.5	
		Tomato	0.375-1.5	
	Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	0.375-0.5	
	Bulb Vegetables	Dry bulb Onion, Green Onion	0.5-0.75	
	Leafy Vegetables	Celery, Spinach, Parsley	0.375-0.5	
	Ornamental Plants	Nursery Stock	0.375-2.0	
Applying sprays using a airblast sprayer	Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	1.25-2.0	20 &40
	Pome Fruits	Apple, Pear, Crabapple, Quince	1.0-1.5	
	Stone Fruits	Cherry	0.75	
		Nectarine, Peach, Plum, Prune (low rates)	0.875-1.125	
		Nectarine, Peach, Plum, Prune (high rates)	1.5-2.0	
	Small Fruits	Grapes	075-1.0	
	Tree Nuts	Almond, Filbert, Pecan, Walnut	1.5-2.0	
		Pistachios	2.5	
	Ornamental Plants	Nursery Stock	0.375-2.0	
Flagger				
Flagging during aerial application (sprays).	Roots and Tuber Vegetable	Potato	0.375-0.75	350
	Legume Vegetable	Bean Succulent, Bean Snap	0.25-0.5	

Table 4: Exposure Variables for Agricultural Uses of Azinphos methyl				
Exposure Scenario	Crop Group	Crop	Application Rates (lb ai/acre)	Daily Acres Treated
	Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	1.25-2.0	
	Pome Fruits	Apple, Pear, Crabapple, Quince	1.0-1.5	
	Stone Fruits	Cherry	0.75	
		Nectarine, Peach, Plum, Prune (low rates)	0.875-1.125	
		Nectarine, Peach, Plum, Prune (high rates)	1.5-2.0	
	Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	0.25-0.5	
		Blueberry	0.5-0.75	
		Cranberry	0.5-1.0	
	Small Fruits	Grapes	075-1.0	
	Tree Nuts	Almond, Filbert, Pecan, Walnut	1.5-2.0	
	Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	0.25-0.75	
	Oil Seed	Cotton	0.125-0.5	
	Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	0.125-0.75	
	Fruiting Vegetables	Pepper, Eggplant	0.375-0.5	
		Tomato	0.375-1.5	
	Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	0.375-0.5	
	Bulb Vegetables	Dry bulb Onion, Green Onion	0.5-0.75	
	Leafy Vegetables	Celery, Spinach	0.375-0.5	
	Micellaneous	Southern Pine Seed Orchards	1.5	

The data presented in this assessment are found in both the summary tables and the appendix tables. The summary tables provide total MOEs for max PPE and engineering control at short and intermediate- term duration. The appendix tables provide total MOEs for baseline, min PPE, max PPE and engineering control at short and intermediate duration. Table 4A provides a listing of crops and the location of the tables within the document**.**

Table 4A: Summary and Appendix Table Locator by Crop Group			
Crop Group	**Specific Crop**	**Summary Table[1]**	**Appendix[2]**
Roots and Tuber Vegetable	Potato	5	A1-A8
Legume Vegetable	Bean Succulent, Bean Snap	6	B1-B8
Citrus Fruits	Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo	7	C1- C8
Pome Fruits	Apple, Pear, Crabapple, Quince	8	D1-D8
Stone Fruits	Cherry	9	E1-E8
	Nectarine, Peach, Plum, Prune (low rates)		
	Nectarine, Peach, Plum, Prune (high rates)		
Berries	Boysenberry, Raspberry, Blackberry, Loganberry, Strawberry	10	F1- F8
	Blueberry		
	Cranberry		
Small Fruits	Grapes	11	G1-G8
Tree Nuts	Almond, Filbert, Pecan, Walnut	12	H1-H8
	Pistachios		
Non -Grass Animal Feed	Alfalfa, Clover, Birdsfoot trefoil	13	I1-I8
Oil Seed	Cotton	14	J1-J8
Brassica Leafy Vegetables	Broccoli, Brussels Sprouts, Cabbage, Cauliflower	15	K1-K8
Fruiting Vegetables	Pepper, Eggplant	16	L1-L8
	Tomato		
Cucurbit Vegetables	Cucumber, Cantaloupe, Honeydew melon, Watermelon	17	M1-M8
Bulb Vegetables	Dry bulb Onion, Green Onion	18	N1-N8
Leafy Vegetables	Celery, Spinach, Parsley	19	O1-O8
Ornamental Plants	Nursery Stock	20	P1-P8
Micellaneous	Southern Pine Seed Orchards	21	Q1-Q8

1) Summary tables provide total MOEs for maximum PPE and engineering contol at short and intermediate- term duration for each group of crops.

2) Appendix tables provide dermal, inhalation and total MOEs for base line, minimum PPE, maximum PPE and engineering contol at short and intermediate- term duration for each group of crops.

2.1.2 Summary of Uncertainties

The handler exposure assessments encompass all of the major uses of azinphos methyl throughout the country. It is difficult to assess all of the "typical" agricultural uses (i.e., actual or predominate application rates and farm sizes), and therefore, an assessment has been developed that is believed to be realistic and yet provides a reasonable certainty that the exposures are not underestimated. The assumptions and uncertainties are identified below to be used in risk management decisions:

- *Application Rates:* The application rates are the minimum to maximum range allowable that were identified on the available product labels.

- *Amount Handled:* The daily acres treated are HED standard values (see Table 4). Aerial application of cotton and alfalfa are assessed at 1200 acres.

- *Unit Exposures:* The unit exposure values calculated by PHED generally range from the geometric mean to the median of the selected data set. To add consistency and quality control to the values produced from this system, the PHED Task Force has evaluated all data within the system and has developed a set of grading criteria to characterize the quality of the original study data. The assessment of data quality is based on the number of observations and the available quality control data. These evaluation criteria and the caveats specific to each exposure scenario are summarized in Table 22. While data from PHED provide the best available information on handler exposures, it should be noted that some aspects of the included studies (e.g., duration, acres treated, pounds of active ingredient handled) may not accurately represent labeled uses in all cases.

2.1.3 Calculations of Exposure

Potential daily dermal exposure is calculated using the following formula:

$$\text{Daily Dermal Exposure}\left(\frac{mg\ ai}{Day}\right) = \text{Dermal Unit Exposure}\left(\frac{mg\ ai}{lb\ ai}\right) \times \text{Max. Appl. Rate}\left(\frac{lb\ ai}{Acre}\right) \times \text{Max. Area Treated}\left(\frac{Acres}{Day}\right)$$

Potential daily inhalation exposure is calculated using the following formula:

$$\text{Daily Inhalation Exposure}\left(\frac{mg\ ai}{day}\right) =$$
$$\text{Unit Exposure}\left(\frac{\mu g\ ai}{lb\ ai}\right) \times \text{Conversion Factor}\left(\frac{1mg}{1{,}000\ \mu g}\right) \times \text{Use Rate}\left(\frac{lb\ ai}{A}\right) \times \text{Daily Acres Treated}\left(\frac{A}{day}\right)$$

2.2 Risk From Handler Exposures

Using the daily dermal exposure scenarios identified in the exposure section, EPA calculated the potential risk to persons from handler exposures to azinphos methyl.

Potential dermal and inhalation daily exposures for occupational handlers were calculated using the following formulas (41.7 percent dermal absorption was assumed for intermediate-term):

$$\text{Daily Inhalation Exposure}\left(\frac{mg\ ai}{day}\right) = \text{Unit Exposure}\left(\frac{\mu g\ ai}{lb\ ai}\right) \times \text{Conversion Factor}\left(\frac{1\ mg}{1{,}000\ \mu g}\right) \times \text{Use Rate}\left(\frac{lb\ ai}{A}\right) \times \text{Daily Acres Treated}\left(\frac{A}{day}\right)$$

$$\text{Daily Dermal Exposure}\left(\frac{mg\ ai}{day}\right) = \text{Unit Exposure}\left(\frac{mg\ ai}{lb\ ai}\right) \times \text{Use Rate}\left(\frac{lb\ ai}{A}\right) \times \text{Daily Acres Treated}\left(\frac{A}{day}\right)$$

The inhalation and dermal daily doses were calculated using the following formulas:

$$\text{Daily Inhalation Dose}\left(\frac{mg\ ai}{kg/day}\right) = \text{Daily Inhalation Exposure}\left(\frac{mg\ ai}{day}\right) \times \left(\frac{1}{\text{Body Weight}\ (kg)}\right) \div (1\ (100\%)$$

$$\text{Daily Dermal Dose}\left(\frac{mg\ ai}{kg/Day}\right) = \text{Daily Dermal Exposure}\left(\frac{mg\ ai}{Day}\right) \times \left(\frac{1}{\text{Body Weight}\ (kg)}\right) \div (0.417\ (41.7\%)$$

Because the endpoint selected for intermediate-term risk assessment was based on a study using oral doses of azinphos methyl, a dermal absorption factor of 41.7 percent was applied to the NOAEL selected for the intermediate-term assessment.

The MOEs were calculated using the following formulas:

$$MOE = \frac{NOAEL\left(\frac{mg}{kg/day}\right)}{\text{Dermal Daily Dose}\left(\frac{mg}{kg/day}\right)}$$

$$MOE = \frac{NOAEL\left(\frac{mg}{kg/day}\right)}{Inhlation\ Daily\ Dose\left(\frac{mg}{kg/day}\right)}$$

For the aggregate exposure risk assessment, the MOE's derived for dermal and inhalation exposures may be combined to obtain a total MOE since a common toxicological endpoint (i.e., cholinesterase inhibition) was observed in dermal and inhalation toxicity studies/routes.

Total MOE = 1/ ((1/ Dermal MOE) + (1/ Inhalation MOE)).

2.2.1 Risk From Handler Exposures

Handler exposure assessments are completed by EPA using a baseline exposure scenario and, if required, increasing levels of risk mitigation (PPE and engineering controls) to achieve a margin of exposure of 100 for dermal and inhalation exposure. Total short-term and intermediate term MOE calculations for baseline exposure plus the risk mitigation measures of personal protective equipment (PPE) and engineering controls using surrogate data from PHED for the agricultural uses of azinphos methyl are presented in the appendix.

EPA calculated the total baseline MOE (short-term and intermediate-term) for each of the exposure scenarios using the following **baseline** PPE assumptions:

- all occupational handlers are wearing footwear (socks plus shoes or boots).
- occupational mixers and loaders using open mixing techniques are wearing long-sleeved shirts, long pants, and no gloves.
- occupational applicators who use open cab airblast or tractor-driven application equipment and handlers flagging for aerial applications are wearing long-sleeved shirts, long pants, and no gloves.

HED calculated the **Minimum** PPE total short-term or intermediate-term MOE for each occupational exposure scenario using the following additional **PPE** assumptions:

- all occupational handlers are wearing footwear (socks plus shoes or boots).
- occupational mixers and loaders using open mixing techniques are wearing long-sleeved shirts and long pants and gloves.
- occupational applicators who use open cab airblast or tractor-driven application equipment and handlers flagging for aerial applications are wearing (except flaggers-no gloves) long-sleeved shirts and long pants.

- Also, dust/mist respirator represented by a 5-fold protection factor is added to mitigate the risks.

HED calculated the **Maximum** PPE total short-term or intermediate-term MOE for each of occupational exposure scenario using the following additional **PPE** assumptions:

- all occupational handlers are wearing footwear (socks plus shoes or boots);
- occupational mixers and loaders using open mixing techniques are wearing long-sleeved shirts and long pants and gloves.
- occupational applicators who use open cab airblast or tractor-driven application equipment and handlers flagging for aerial applications are wearing (except flaggers-no gloves) long-sleeved shirts and long pants and.
- Also, an organic vapor respirator represented by a 10-fold protection factor is added to mitigate the risks.

. HED calculated the engineering-control total short-term or intermediate-term MOE for each occupational exposure scenario using the following **engineering control** assumptions:

- all occupational handlers are wearing footwear (socks plus shoes or boots).
- occupational mixers and loaders handling liquid formulations using a closed system are wearing chemical-resistant gloves plus long-sleeved shirts and long pants.
- occupational mixers and loaders handling wettable powders using a closed system (water-soluble packages) are wearing long-sleeved shirts and long pants, and chemical-resistant gloves.
- occupational applicators who use aerial, airblast, or tractor-driven application equipment and handlers flagging for aerial applications are located in enclosed cabs or cockpits and are wearing long-sleeved shirts and long pants, and no gloves (gloved value used for airblast).

2.2.2 Summary of Handler MOEs

Tables 5 to 21 summarize the maximum PPE and engineering control MOE values for both the total short- and intermediate-term exposure durations. The comprehensive table of MOE values for baseline, minimum PPE, maximum PPE and engineering controls for each crop group is presented in the appendix.

Azinphos methyl is applied to 17 different crop groups. The example given below uses the crop group pome fruits because application on apples represent the highest amount used for this chemical. Similar procedures have been utilized to calculate the risk for the other crop groups.

Assessment of total (i.e., dermal ad inhalation routes) short-term handler exposure scenarios for pome fruits (apple, pear, crabapple, quince) resulted in MOEs ranging from less than 1 to 480. A total of 20 MOEs were calculated for the various application rates assessed in each scenario. Based on the maximum level of protection (e.g., various levels of PPE or engineering controls) 7 of the MOEs are estimated to be greater than 100.

The results of the total intermediate-term handler assessments for pome fruits (apple, pear, crabapple, quince) indicate that all potential exposure scenarios provide at least one application rate with a total MOE(s) greater than or equal to 100 at either the maximum PPE (i.e., long pants, long sleeved shirts, and chemical resistant gloves while using open systems) or using engineering controls (i.e., closed systems). In the majority of cases, it is dermal exposure rather than the inhalation exposure driving the total MOEs. More specifically, the MOEs for all the scenarios range from 1 to 320. In total, 20 MOEs were calculated for the various application rates. Based on the maximum level of protection (i.e., various levels of PPE or engineering controls) 4 MOEs are greater than 100.

Table 5:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables

Exposure Scenario (Scenario #)	Crop group (crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Wettable Powders for Aerial application (1)	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Wettable Powders for Aerial application (2)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Aerial application (3)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Mixing/Loading Liquids for Aerial application (4)		0.38 lb ai per acre	350 Acres per day	17.0	34.0	11.0	22.0
Wettable Powders for Chemigation application (5)		0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Wettable Powders for Chemigation application (6)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Chemigation application (7)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Mixing/Loading Liquids for Chemigation application (8)		0.38 lb ai per acre	350 Acres per day	17.0	34.0	11.0	22.0
Mixing/Loading Liquids for Groundboom application (9)		0.38 lb ai per acre	80 Acres per day	76.0	150.0	49.0	97.0
Mixing/Loading Liquids for Groundboom application (10)		0.75 lb ai per acre	80 Acres per day	38.0	75.0	24.0	48.0
Wettable Powders for Groundboom application (11)		0.75 lb ai per acre	80 Acres per day	4.8	64.0	3.1	42.0
Wettable Powders for Groundboom application (12)		0.38 lb ai per acre	80 Acres per day	9.5	130.0	6.2	83.0
Applicator							
Sprays for Aerial application (13)	Roots & Tuber Vegetable (Potato)	0.38 lb ai per acre	350 Acres per day	No Data	58.0	No Data	38.0
Sprays for Aerial application (14)		0.75 lb ai per acre	350 Acres per day	No Data	29.0	No Data	19.0
Sprays for Groundboom application (15)		0.75 lb ai per acre	80 Acres per day	59.0	130.0	38.0	83.0
Sprays for Groundboom application (16)		0.38 lb ai per acre	80 Acres per day	12.0	260.0	76.0	170.0
Flagger							
Flagging for Sprays application (17)	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	30.0	1300.0	19.0	840.0
Flagging for Sprays application (18)		0.75 lb ai per acre	350 Acres per day	15.0	640.0	9.6	420.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves , enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table6:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Legume Vegetables

Exposure Scenario (Scenario #)	Crop Group (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	26.0	51.0	17.0	33.0
Mixing/Loading Liquids for Aerial application (2)		0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Aerial application (3)		0.25 lb ai per acre	350 Acres per day	3.3	44.0	2.1	29.0
Wettable Powders for Aerial application (4)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Groundboom application (5)		0.25 lb ai per acre	80 Acres per day	11.0	22.0	73.0	140.0
Mixing/Loading Liquids for Groundboom application (6)		0.50 lb ai per acre	80 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Groundboom application (7)		0.50 lb ai per acre	80 Acres per day	7.1	96.0	4.7	63.0
Wettable Powders for Groundboom application (8)		0.25 lb ai per acre	80 Acres per day	14.0	190.0	9.3	130.0
Applicator							
Sprays for Aerial application (9)	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	No Data	88.0	No Data	57.0
Sprays for Aerial application (10)		0.50 lb ai per acre	350 Acres per day	No Data	44.0	No Data	28.0
Sprays for Groundboom application (11)		0.50 lb ai per acre	80 Acres per day	88.0	190.0	57.0	120.0
Sprays for Groundboom application (12)		0.25 lb ai per acre	80 Acres per day	18.0	390.0	11.0	250.0
Flagger							
Flagging for Sprays application (13)	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	45.0	1900.0	29.0	1300.0
Flagging for Sprays application (14)		0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 7:Occupational Handler Short and Intermediate -Term Risk From Azinphos-Methyl on Citrus

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	5.2	10.0	3.4	6.6
Mixing/Loading Liquids for Aerial application (2)		2.00 lb ai per acre	350 Acres per day	3.3	6.4	2.1	4.1
Wettable Powders for Aerial application (3)		2.00 lb ai per acre	350 Acres per day	0.41	5.5	0.27	3.6
Wettable Powders for Aerial application (4)		1.25 lb ai per acre	350 Acres per day	0.65	8.8	0.43	5.7
Mixing/Loading Liquids for Airblast application (5)		1.25 lb ai per acre	20 Acres per day	91.0	180.0	59.0	120.0
Mixing/Loading Liquids for Airblast application (6)		2.00 lb ai per acre	20 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Airblast application (7)		1.25 lb ai per acre	20 Acres per day	11.0	150.0	7.5	100
Wettable Powders for Airblast application (8)		2.00 lb ai per acre	20 Acres per day	7.1	96.0	4.7	63.0
Mixing/Loading Liquids for Airblast application (9)		1.25 lb ai per acre	40 Acres per day	46.0	90.0	29.0	58.0
Mixing/Loading Liquids for Airblast application (10)		2.00 lb ai per acre	40 Acres per day	28.0	56.0	18.0	36.0
Wettable Powders for Airblast application (11)		1.25 lb ai per acre	40 Acres per day	5.7	77.0	3.7	50.0
Wettable Powders for Airblast application (12)		2.00 lb ai per acre	40 Acres per day	3.6	48.0	2.3	31.0
Applicator							
Sprays for Aerial application (13)	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	No Data	18.0	No Data	11.0
Sprays for Aerial application (14)		2.00 lb ai per acre	350 Acres per day	No Data	11.0	No Data	7.1
Sprays for Airblast application (15)		1.25 lb ai per acre	20 Acres per day	7.1	79.0	4.6	52.0
Sprays for Airblast application (16)		2.00 lb ai per acre	20 Acres per day	4.4	50.0	2.9	32.0
Sprays for Airblast application (17)		2.00 lb ai per acre	40 Acres per day	2.2	25.0	1.4	16.0
Sprays for Airblast application (18)		1.25 lb ai per acre	40 Acres per day	3.6	40.0	2.3	26.0
Flagger							
Flagging for Sprays application (19)	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	5.6	240.0	3.6	160.0
Flagging for Sprays application (20)		1.25 lb ai per acre	350 Acres per day	8.9	390.0	5.7	250.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 8:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Pome Fruits

Exposure Scenario (Scenario #)	Crop Group (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	6.5	13.0	4.2	8.3
Mixing/Loading Liquids for Aerial application (2)		1.50 lb ai per acre	350 Acres per day	4.3	8.5	2.8	5.5
Wettable Powders for Aerial application (3)		1.50 lb ai per acre	350 Acres per day	0.54	7.3	0.36	4.8
Wettable Powders for Aerial application (4)		1.00 lb ai per acre	350 Acres per day	0.81	11.0	0.53	7.1
Mixing/Loading Liquids for Airblast application (5)		1.00 lb ai per acre	20 Acres per day	11.0	220.0	73.0	140.0
Mixing/Loading Liquids for Airblast application (6)		1.00 lb ai per acre	40 Acres per day	57.0	110.0	37.0	72.0
Mixing/Loading Liquids for Airblast application (7)		1.50 lb ai per acre	20 Acres per day	76.0	150.0	49.0	97.0
Mixing/Loading Liquids for Airblast application (8)		1.50 lb ai per acre	40 Acres per day	38.0	75.0	24.0	48.0
Wettable Powders for Airblast application (9)		1.00 lb ai per acre	20 Acres per day	14.0	190.0	9.3	130.0
Wettable Powders for Airblast application (10)		1.50 lb ai per acre	20 Acres per day	9.5	130.0	6.2	83.0
Wettable Powders for Airblast application (11)		1.00 lb ai per acre	40 Acres per day	7.1	96.0	4.7	63.0
Wettable Powders for Airblast application (12)		1.50 lb ai per acre	40 Acres per day	4.8	64.0	3.1	42.0
Applicator							
Sprays for Aerial application (13)	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	No Data	22.0	No Data	14.0
Sprays for Aerial application (14)		1.50 lb ai per acre	350 Acres per day	No Data	15.0	No Data	9.4
Sprays for Airblast application (15)		1.00 lb ai per acre	20 Acres per day	8.9	99.0	5.7	65.0
Sprays for Airblast application (16)		1.00 lb ai per acre	40 Acres per day	4.4	50.0	2.9	32.0
Sprays for Airblast application (17)		1.50 lb ai per acre	20 Acres per day	5.9	66.0	3.8	43.0
Sprays for Airblast application (18)		1.50 lb ai per acre	40 Acres per day	3.0	33.0	1.9	22.0
Flagger							
Flagging for Sprays application (19)	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	11.0	480.0	7.2	320.0
Flagging for Sprays application (20)		1.50 lb ai per acre	350 Acres per day	7.4	320.0	4.8	210.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 9:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Stone Fruits

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	5.8	11.0	3.7	7.4
Wettable Powders for Aerial application (2)		1.13 lb ai per acre	350 Acres per day	0.72	9.7	0.47	6.4
Mixing/Loading Liquids for Aerial application (3)		1.50 lb ai per acre	350 Acres per day	4.3	8.5	2.8	5.5
Wettable Powders for Aerial application (4)		1.50 lb ai per acre	350 Acres per day	0.54	7.3	0.36	4.8
Mixing/Loading Liquids for Aerial application (5)		2.00 lb ai per acre	350 Acres per day	3.3	6.4	2.1	4.1
Wettable Powders for Aerial application (6)		2.00 lb ai per acre	350 Acres per day	0.41	5.5	0.27	3.6
Mixing/Loading Liquids for Aerial application (7)	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Aerial application (8)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Airblast application (9)	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	130.0	260.0	84.0	170.0
Mixing/Loading Liquids for Airblast application (10)		0.88 lb ai per acre	40 Acres per day	65.0	130.0	42.0	83.0
Wettable Powders for Airblast application (11)		0.88 lb ai per acre	20 Acres per day	16.0	220.0	11.0	140.0
Wettable Powders for Airblast application (12)		0.88 lb ai per acre	40 Acres per day	8.1	110.0	5.3	71.0
Mixing/Loading Liquids for Airblast application (13)		1.13 lb ai per acre	20 Acres per day	10.0	200.0	65.0	130.0
Mixing/Loading Liquids for Airblast application (14)		1.13 lb ai per acre	40 Acres per day	51.0	100.0	33.0	64.0
Wettable Powders for Airblast application (15)		1.13 lb ai per acre	20 Acres per day	13.0	170.0	8.3	110.0
Wettable Powders for Airblast application (16)		1.13 lb ai per acre	40 Acres per day	6.3	85.0	4.1	56.0
Mixing/Loading Liquids for Airblast application (17)		1.50 lb ai per acre	20 Acres per day	76.0	150.0	49.0	97.0
Mixing/Loading Liquids for Airblast application (18)		1.50 lb ai per acre	40 Acres per day	38.0	75.0	24.0	48.0
Mixing/Loading Liquids for Airblast application (19)		1.50 lb ai per acre	20 Acres per day	76.0	15.0	49.0	97.0
Mixing/Loading Liquids for Airblast application (20)		1.50 lb ai per acre	40 Acres per day	38.0	75.0	24.0	48.0
Wettable Powders for Airblast application (21)		1.50 lb ai per acre	20 Acres per day	9.5	130.0	6.2	83.0
Wettable Powders for Airblast application (22)		1.50 lb ai per acre	40 Acres per day	4.8	64.0	3.1	42.0
Mixing/Loading Liquids for Airblast application (23)		2.00 lb ai per acre	20 Acres per day	57.0	110.0	37.0	72.0
Mixing/Loading Liquids for Airblast application (24)		2.00 lb ai per acre	40 Acres per day	28.0	56.0	18.0	36.0
Wettable Powders for Airblast application (25)		2.00 lb ai per acre	20 Acres per day	7.1	96.0	4.7	63.0

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Wettable Powders for Airblast application (26)		2.00 lb ai per acre	40 Acres per day	3.6	48.0	2.3	31.0
Mixing/Loading Liquids for Aerial application (27)	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	7.4	15.0	4.8	9.5
Wettable Powders for Aerial application (28)		0.88 lb ai per acre	350 Acres per day	0.93	13.0	0.61	8.2
Applicator							
Sprays for Aerial application (29)		0.88 lb ai per acre	350 Acres per day	No Data	25.0	No Data	16.0
Sprays for Aerial application (30)		1.13 lb ai per acre	350 Acres per day	No Data	19.0	No Data	13.0
Sprays for Aerial application (31)		1.50 lb ai per acre	350 Acres per day	No Data	15.0	No Data	9.4
Sprays for Aerial application (32)		2.00 lb ai per acre	350 Acres per day	No Data	11.0	No Data	7.1
Sprays for Aerial application (33)	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	No Data	29.0	No Data	19.0
Sprays for Airblast application (34)	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	10.0	110.0	6.5	74.0
Sprays for Airblast application (35)		0.88 lb ai per acre	40 Acres per day	5.1	57.0	3.3	37.0
Sprays for Airblast application (36)		1.13 lb ai per acre	20 Acres per day	7.9	88.0	5.1	57.0
Sprays for Airblast application (37)		1.13 lb ai per acre	40 Acres per day	3.9	44.0	2.5	29.0
Sprays for Airblast application (38)		1.50 lb ai per acre	20 Acres per day	5.9	66.0	3.8	43.0
Sprays for Airblast application (39)		1.50 lb ai per acre	40 Acres per day	3.0	33.0	1.9	22.0
Sprays for Airblast application (40)		2.00 lb ai per acre	20 Acres per day	4.4	50.0	2.9	32.0
Sprays for Airblast application (41)		2.00 lb ai per acre	40 Acres per day	2.2	25.0	1.4	16.0
Flagger							
Flagging for Sprays application (42)	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	13.0	550.0	8.2	360.0
Flagging for Sprays application (43)		1.13 lb ai per acre	350 Acres per day	9.9	430.0	6.4	280.0
Flagging for Sprays application (44)		1.50 lb ai per acre	350 Acres per day	7.4	320.0	4.8	210.0
Flagging for Sprays application (45)		2.00 lb ai per acre	350 Acres per day	5.6	240.0	3.6	160.0
Flagging for Sprays application (46)	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	15.0	640.0	9.6	420.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 10:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Berries

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	26.0	51.0	17.0	33.0
Wettable Powders for Aerial application (2)		0.25 lb ai per acre	350 Acres per day	3.3	44.0	2.1	29.0
Mixing/Loading Liquids for Aerial application (3)		0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Aerial application (4)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Aerial application (5)	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Aerial application (6)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Aerial application (7)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Aerial application (8)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Aerial application (9)	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Aerial application (10)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Aerial application (11)		1.00 lb ai per acre	350 Acres per day	6.5	13.0	4.2	8.3
Wettable Powders for Aerial application (12)		1.00 lb ai per acre	350 Acres per day	0.81	11.0	0.53	7.1
Mixing/Loading Liquids for Groundboom application (13)	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	110.0	220.0	73.0	140.0
Wettable Powders for Groundboom application (14)		0.25 lb ai per acre	80 Acres per day	14.0	190.0	9.3	130
Mixing/Loading Liquids for Groundboom application (15)		0.50 lb ai per acre	80 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Groundboom application (16)		0.50 lb ai per acre	80 Acres per day	7.1	96.0	4.7	63.0
Mixing/Loading Liquids for Groundboom application (17)	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Groundboom application (18)		0.50 lb ai per acre	80 Acres per day	7.1	96.0	4.7	63.0
Mixing/Loading Liquids for Groundboom application (19)		0.75 lb ai per acre	80 Acres per day	38.0	75.0	24.0	48.0
Wettable Powders for Groundboom application (20)		0.75 lb ai per acre	80 Acres per day	4.8	64.0	3.1	42.0
Mixing/Loading Liquids for Chemigation application (21)	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	26.0	51.0	17.0	33.0
Wettable Powders for Chemigation application (22)		0.25 lb ai per acre	350 Acres per day	3.3	44.0	2.1	29.0
Mixing/Loading Liquids for Chemigation application (23)		0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Chemigation application (24)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Wettable Powders for Aerial application (25)	Berries (Blueberry),	0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Wettable Powders for Aerial application (26)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Chemigation application (27)	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Chemigation application (28)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Wettable Powders for Chemigation application (29)		1.00 lb ai per acre	350 Acres per day	0.81	11.0	0.53	7.1
Mixing/Loading Liquids for Chemigation application (30)		1.00 lb ai per acre	350 Acres per day	6.5	13.0	4.2	8.3
Applicator							
Sprays for Aerial application (31)	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	No Data	88.0	No Data	57.0
Sprays for Aerial application (32)		0.50 lb ai per acre	350 Acres per day	No Data	44.0	No Data	28.0
Sprays for Aerial application (33)	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	No Data	44.0	No Data	28.0
Sprays for Aerial application (34)		0.75 lb ai per acre	350 Acres per day	No Data	29.0	No Data	19.0
Sprays for Aerial application (35)	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	No Data	44.0	No Data	28.0
Sprays for Aerial application (36)		1.00 lb ai per acre	350 Acres per day	No Data	22.0	No Data	14.0
Sprays for Groundboom application (37)	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	18.0	390.0	11.0	250.0
Sprays for Groundboom application (38)		0.50 lb ai per acre	80 Acres per day	88.0	200.00	57.0	120.0
Sprays for Groundboom application (39)	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	88.0	200.0	57.0	120.0
Sprays for Groundboom application (40)		0.75 lb ai per acre	80 Acres per day	59.0	130.0	38.0	83.0
Flagger							
Flagging for Sprays application (41)	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	45.0	2000.0	29.0	1300.0
Flagging for Sprays application (42)		0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0
Flagging for Sprays application (43)	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0
Flagging for Sprays application (44)		0.75 lb ai per acre	350 Acres per day	15.0	640.0	9.6	420.0
Flagging for Sprays application (45)	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0
Flagging for Sprays application (46)		1.00 lb ai per acre	350 Acres per day	11.0	480.0	7.2	320.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 11:Occupational Handler Short and intermediate-Term Risk From Azinphos-Methyl on Small Fruits

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Aerial application (2)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Aerial application (3)		1.00 lb ai per acre	350 Acres per day	6.5	13.0	4.2	8.3
Wettable Powders for Aerial application (4)		1.00 lb ai per acre	350 Acres per day	0.81	11.0	0.53	7.1
Mixing/Loading Liquids for Airblast application (5)		0.75 lb ai per acre	20 Acres per day	150.0	300.0	98.0	190.0
Mixing/Loading Liquids for Airblast application (6)		0.75 lb ai per acre	40 Acres per day	76.0	150.0	49.0	97.0
Wettable Powders for Airblast application (7)		0.75 lb ai per acre	20 Acres per day	19.0	260.0	12.0	170.0
Wettable Powders for Airblast application (8)		0.75 lb ai per acre	40 Acres per day	9.5	130.0	6.2	83.0
Mixing/Loading Liquids for Airblast application (9)		1.00 lb ai per acre	20 Acres per day	11.0	220.0	73.0	140.0
Mixing/Loading Liquids for Airblast application (10)		1.00 lb ai per acre	40 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Airblast application (11)		1.00 lb ai per acre	20 Acres per day	14.0	190.0	9.3	130.0
Wettable Powders for Airblast application (12)		1.00 lb ai per acre	40 Acres per day	7.1	96.0	4.7	63.0
Applicator							
Sprays for Aerial application (13)	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	No Data	29.0	No Data	19.0
Sprays for Aerial application (14)		1.00 lb ai per acre	350 Acres per day	No Data	22.0	No Data	14.0
Sprays for Airblast application (15)		0.75 lb ai per acre	20 Acres per day	12.0	130.0	7.6	86.0
Sprays for Airblast application (16)		0.75 lb ai per acre	40 Acres per day	5.9	66.0	3.8	43.0
Sprays for Airblast application (17)		1.00 lb ai per acre	20 Acres per day	8.9	99.0	5.7	65.0
Sprays for Airblast application (18)		1.00 lb ai per acre	40 Acres per day	4.4	50.0	2.9	32.0

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Flagger							
Flagging for Sprays application (19)	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	15.0	640.0	9.6	420.0
Flagging for Sprays application (20)		1.00 lb ai per acre	350 Acres per day	11.0	480.0	7.2	320.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table12:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Tree Nuts

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	4.3	8.5	2.8	5.5
Wettable Powders for Aerial application (2)		1.50 lb ai per acre	350 Acres per day	0.54	7.3	0.36	4.8
Mixing/Loading Liquids for Aerial application (3)		2.00 lb ai per acre	350 Acres per day	3.3	6.4	2.1	4.1
Wettable Powders for Aerial application (4)		2.00 lb ai per acre	350 Acres per day	0.41	5.5	0.27	3.6
Mixing/Loading Liquids for Airblast application (5)		1.50 lb ai per acre	20 Acres per day	76.0	150.0	49.0	97.0
Mixing/Loading Liquids for Airblast application (6)		1.50 lb ai per acre	40 Acres per day	38.0	75.0	24.0	48.0
Wettable Powders for Airblast application (7)		1.50 lb ai per acre	20 Acres per day	9.5	130.0	6.2	83.0
Wettable Powders for Airblast application (8)		1.50 lb ai per acre	40 Acres per day	4.8	64.0	3.1	42.0
Mixing/Loading Liquids for Airblast application (9)		2.00 lb ai per acre	20 Acres per day	57.0	110.0	37.0	72.0
Mixing/Loading Liquids for Airblast application (10)		2.00 lb ai per acre	40 Acres per day	28.0	56.0	18.0	36.0
Wettable Powders for Airblast application (11)		2.00 lb ai per acre	20 Acres per day	7.1	96.0	4.7	63.0
Wettable Powders for Airblast application (12)		2.00 lb ai per acre	40 Acres per day	3.6	48.0	2.3	31.0
Wettable Powders for Aerial application (13)	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.33	4.4	0.21	2.9
Wettable Powders for Airblast application (14)		2.50 lb ai per acre	20 Acres per day	5.7	77.0	3.7	50.0
Wettable Powders for Airblast application (15)		2.50 lb ai per acre	40 Acres per day	2.9	38.0	1.9	25.0
Applicator							
Sprays for Aerial application (16)	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	No Data	15.0	No Data	9.4
Sprays for Aerial application (17)		2.00 lb ai per acre	350 Acres per day	No Data	11.0	No Data	7.1
Sprays for Airblast application (18)		2.00 lb ai per acre	20 Acres per day	4.4	50.0	2.9	32.0
Sprays for Airblast application (19)		2.00 lb ai per acre	40 Acres per day	2.2	25.0	1.4	16.0
Sprays for Aerial application (20)	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	No Data	8.8	No Data	5.7
Sprays for Airblast application (21)		2.50 lb ai per acre	20 Acres per day	3.6	40.0	2.3	26.0

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Sprays for Airblast application (22)		2.50 lb ai per acre	40 Acres per day	1.8	20.0	1.1	13.0
Flagger							
Flagging for Sprays application (23)	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	7.4	320.0	4.8	210.0
Flagging for Sprays application (24)		2.00 lb ai per acre	350 Acres per day	5.6	240.0	3.6	160.0
Flagging for Sprays application (25)	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	4.5	190.0	2.9	130.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 13:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Non-Grass Animal Feed

Exposure Scenario (Scenario #)	Crop Group (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	7.6	15.0	4.9	9.7
Wettable Powders for Aerial application (2)		0.25 lb ai per acre	1200 Acres per day	0.95	13.0	0.62	8.3
Mixing/Loading Liquids for Aerial application (3)		0.75 lb ai per acre	1200 Acres per day	2.5	5.0	1.6	3.2
Wettable Powders for Aerial application (4)		0.75 lb ai per acre	1200 Acres per day	0.32	4.3	0.21	2.8
Mixing/Loading Liquids for Groundboom application (5)		0.25 lb ai per acre	200 Acres per day	46.0	90.0	29.0	58.0
Wettable Powders for Groundboom application (6)		0.25 lb ai per acre	200 Acres per day	5.7	77.0	3.7	50.0
Mixing/Loading Liquids for Groundboom application (7)		0.75 lb ai per acre	200 Acres per day	15.0	30.0	9.8	19.0
Wettable Powders for Groundboom application (8)		0.75 lb ai per acre	200 Acres per day	1.9	26.0	1.2	17.0
Mixing/Loading Liquids for Chemigation application (9)	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot trefoil	0.25 lb ai per acre	350 Acres per day	26.0	51.0	17.0	33.0
Mixing/Loading Liquids for Chemigation application (10)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Chemigation application (11)		0.25 lb ai per acre	350 Acres per day	3.3	44.0	2.1	29.0
Wettable Powders for Chemigation application (12)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Aerial application (13)	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	26.0	51.0	17.0	33.0
Wettable Powders for Aerial application (14)		0.25 lb ai per acre	350 Acres per day	3.3	44.0	2.1	29.0
Mixing/Loading Liquids for Aerial application (15)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Aerial application (16)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Groundboom application (17)		0.25 lb ai per acre	80 Acres per day	110.0	220.0	73.0	140.0
Wettable Powders for Groundboom application (18)		0.25 lb ai per acre	80 Acres per day	14.0	190.0	9.3	130.0
Mixing/Loading Liquids for Groundboom application (19)		0.75 lb ai per acre	80 Acres per day	38.0	75.0	24.0	48.0
Wettable Powders for Groundboom application (20)		0.75 lb ai per acre	80 Acres per day	4.8	64.0	3.1	42.0
Applicator							
Sprays for Aerial application (21)	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	No Data	26.0	No Data	17.0

Exposure Scenario (Scenario #)	Crop Group (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Sprays for Aerial application (22)		0.75 lb ai per acre	1200 Acres per day	No Data	8.5	No Data	5.5
Sprays for Groundboom application (23)		0.25 lb ai per acre	200 Acres per day	70.0	150.0	45.0	100.0
Sprays for Groundboom application (24)		0.75 lb ai per acre	200 Acres per day	23.0	51.0	15.0	33.0
Sprays for Aerial application (25)	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	No Data	88.0	No Data	57.0
Sprays for Aerial application (26)		0.75 lb ai per acre	350 Acres per day	No Data	29.0	No Data	19.0
Sprays for Groundboom application (27)		0.25 lb ai per acre	80 Acres per day	18.0	390.0	11.0	250.0
Sprays for Groundboom application (28)		0.75 lb ai per acre	80 Acres per day	59.0	130.0	38.0	83.0
Flagger							
Flagging for Sprays application (29)	Non-Grass Animal Feed (Alfalfa,Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	45.0	2000.0	29.0	1300.0
Flagging for Sprays application (30)		0.75 lb ai per acre	350 Acres per day	15.0	640.0	9.6	420.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 14:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Oil Seed

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	15.0	30.0	9.8	19.0
Wettable Powders for Aerial application (2)		0.13 lb ai per acre	1200 Acres per day	1.9	26.0	1.2	17.0
Mixing/Loading Liquids for Aerial application (3)		0.50 lb ai per acre	1200 Acres per day	3.8	7.5	2.4	4.8
Wettable Powders for Aerial application (4)		0.50 lb ai per acre	1200 Acres per day	0.48	6.4	0.31	4.2
Mixing/Loading Liquids for Groundboom application (5)		0.13 lb ai per acre	200 Acres per day	91.0	180.0	59.0	120.0
Wettable Powders for Groundboom application (6)		0.13 lb ai per acre	200 Acres per day	11.0	150.0	7.5	100
Mixing/Loading Liquids for Groundboom application (7)		0.50 lb ai per acre	200 Acres per day	23.0	45.0	15.0	29.0
Wettable Powders for Groundboom application (8)		0.50 lb ai per acre	200 Acres per day	2.9	38.0	1.9	25.0
Applicator							
Sprays for Aerial application (9)	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	No Data	51.0	No Data	33.0
Sprays for Aerial application (10)		0.50 lb ai per acre	1200 Acres per day	No Data	13.0	No Data	8.3
Sprays for Groundboom application (11)		0.13 lb ai per acre	200 Acres per day	140.0	310.0	91.0	200.0
Sprays for Groundboom application (12)		0.50 lb ai per acre	200 Acres per day	35.0	77.0	23.0	50.0
Flagger							
Flagging for Sprays application (13)	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	89.0	3900.0	57.0	2500.0
Flagging for Sprays application (14)		0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 15:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Brassica Leafy Vegetable

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	52.0	100.0	34.0	66.0
Wettable Powders for Aerial application (2)		0.13 lb ai per acre	350 Acres per day	6.5	88.0	4.3	57.0
Mixing/Loading Liquids for Aerial application (3)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Aerial application (4)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Groundboom application (5)		0.13 lb ai per acre	80 Acres per day	23.0	450.0	15.0	290.0
Wettable Powders for Groundboom application (6)		0.13 lb ai per acre	80 Acres per day	29.0	380.0	19.0	250.0
Mixing/Loading Liquids for Groundboom application (7)		0.75 lb ai per acre	80 Acres per day	38.0	75.0	24.0	48.0
Wettable Powders for Groundboom application (8)		0.75 lb ai per acre	80 Acres per day	4.8	64.0	3.1	42.0
Mixing/Loading Liquids for Chemigation application (9)		0.13 lb ai per acre	350 Acres per day	52.0	100.0	34.0	66.0
Wettable Powders for Chemigation application (10)		0.13 lb ai per acre	350 Acres per day	6.5	88.0	4.3	57.0
Mixing/Loading Liquids for Chemigation application (11)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Chemigation application (12)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Applicator							
Sprays for Aerial application (13)	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	No Data	180.0	No Data	110.0
Sprays for Aerial application (14)		0.75 lb ai per acre	350 Acres per day	No Data	29.0	No Data	19.0
Sprays for Groundboom application (15)		0.13 lb ai per acre	80 Acres per day	35.0	770.0	23.0	500.0
Sprays for Groundboom application (16)		0.75 lb ai per acre	80 Acres per day	59.0	130.0	38.0	83.0
Flagger							
Flagging for Sprays application (17)	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	89.0	3900.0	57.0	2500.0
Flagging for Sprays application (18)		0.75 lb ai per acre	350 Acres per day	15.0	640.0	9.6	420.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 16:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Fruiting Vegetable

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	17.0	34.0	11.0	22.0
Wettable Powders for Aerial application (2)		0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Mixing/Loading Liquids for Aerial application (3)	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Aerial application (4)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Aerial application (5)	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	4.3	8.5	2.8	5.5
Wettable Powders for Aerial application (6)		1.50 lb ai per acre	350 Acres per day	0.54	7.3	0.36	4.8
Mixing/Loading Liquids for Groundboom application (7)	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	76.0	150.0	49.0	97.0
Wettable Powders for Groundboom application (8)		0.38 lb ai per acre	80 Acres per day	9.5	130.0	6.2	83.0
Mixing/Loading Liquids for Groundboom application (9)	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Groundboom application (10)		0.50 lb ai per acre	80 Acres per day	7.1	96.0	4.7	63.0
Mixing/Loading Liquids for Groundboom application (11)	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	19.0	37.0	12.0	24.0
Wettable Powders for Groundboom application (12)		1.50 lb ai per acre	80 Acres per day	2.4	32.0	1.6	21.0
Mixing/Loading Liquids for Chemigation application (13)	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	17.0	34.0	11.0	22.0
Wettable Powders for Chemigation application (14)		0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Mixing/Loading Liquids for Chemigation application (15)	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Chemigation application (16)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Chemigation application (17)	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	4.3	8.5	2.8	5.5
Wettable Powders for Chemigation application (18)		1.50 lb ai per acre	350 Acres per day	0.54	7.3	0.36	4.8
Applicator							
Sprays for Aerial application (19)	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	No Data	58.0	No Data	38.0
Sprays for Aerial application (20)	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	No Data	44.0	No Data	28.0
Sprays for Aerial application (21)	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	No Data	15.0	No Data	9.4
Sprays for Groundboom application (22)	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	120.0	260.0	76.0	170.0

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Sprays for Groundboom application (23)	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	88.0	190.0	57.0	120.0
Sprays for Groundboom application (24)	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	29.0	64.0	19.0	42.0
Flagger							
Flagging for Sprays application (25)	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	30.0	1300.0	19.0	840.0
Flagging for Sprays application (26)	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0
Flagging for Sprays application (27)	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	7.4	320.0	4.8	210.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 17:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Cucurbit Vegetables

Exposure Scenario (Scenario #)	Crop Group (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	17.0	34.0	11.0	22.0
Wettable Powders for Aerial application (2)		0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Mixing/Loading Liquids for Aerial application (3)		0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Aerial application (4)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Groundboom application (5)		0.38 lb ai per acre	80 Acres per day	76.0	150.0	49.0	97.0
Wettable Powders for Groundboom application (6)		0.38 lb ai per acre	80 Acres per day	9.5	130.0	6.2	83.0
Mixing/Loading Liquids for Groundboom application (7)		0.50 lb ai per acre	80 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Groundboom application (8)		0.50 lb ai per acre	80 Acres per day	7.1	96.0	4.7	63.0
Mixing/Loading Liquids for Chemigation application (9)		0.38 lb ai per acre	350 Acres per day	17.0	34.0	11.0	22.0
Wettable Powders for Chemigation application (10)		0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Mixing/Loading Liquids for Chemigation application (11)		0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Chemigation application (12)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Applicator							
Sprays for Aerial application (13)	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	No Data	58.0	No Data	38.0
Sprays for Aerial application (14)		0.50 lb ai per acre	350 Acres per day	No Data	44.0	No Data	28.0
Sprays for Groundboom application (15)		0.38 lb ai per acre	80 Acres per day	120.0	260.0	76.0	170.0
Sprays for Groundboom application (16)		0.50 lb ai per acre	80 Acres per day	88.0	190.0	57.0	120.0
Flagger							
Flagging for Sprays application (17)	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	30.0	1300.0	19.0	840.0
Flagging for Sprays application (18)		0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 18:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Bulb Vegetables

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Aerial application (2)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Aerial application (3)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Aerial application (4)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Mixing/Loading Liquids for Groundboom application (5)		0.50 lb ai per acre	80 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Groundboom application (6)		0.50 lb ai per acre	80 Acres per day	7.1	96.0	4.7	63.0
Mixing/Loading Liquids for Groundboom application (7)		0.75 lb ai per acre	80 Acres per day	38.0	75.0	24.0	48.0
Wettable Powders for Groundboom application (8)		0.75 lb ai per acre	80 Acres per day	4.8	64.0	3.1	42.0
Mixing/Loading Liquids for Chemigation application (9)		0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Chemigation application (10)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Chemigation application (11)		0.75 lb ai per acre	350 Acres per day	8.7	17.0	5.6	11.0
Wettable Powders for Chemigation application (12)		0.75 lb ai per acre	350 Acres per day	1.1	15.0	0.71	9.5
Applicator							
Sprays for Aerial application (13)	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	No Data	44.0	No Data	28.0
Sprays for Aerial application (14)		0.75 lb ai per acre	350 Acres per day	No Data	29.0	No Data	19.0
Sprays for Groundboom application (15)		0.50 lb ai per acre	80 Acres per day	88.0	190.0	57.0	120.0
Sprays for Groundboom application (16)		0.75 lb ai per acre	80 Acres per day	59.0	130.0	38.0	83.0
Flagger							
Flagging for Sprays application (17)	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0
Flagging for Sprays application (18)		0.75 lb ai per acre	350 Acres per day	15.0	640.0	9.6	420.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 19:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Leafy Vegetables

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	17.0	34.0	11.0	22.0
Wettable Powders for Aerial application (2)		0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Mixing/Loading Liquids for Aerial application (3)		0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Aerial application (4)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Mixing/Loading Liquids for Groundboom application (5)		0.38 lb ai per acre	80 Acres per day	76.0	150.0	49.0	97.0
Wettable Powders for Groundboom application (6)		0.38 lb ai per acre	80 Acres per day	9.5	130.0	6.2	83.0
Mixing/Loading Liquids for Groundboom application (7)		0.50 lb ai per acre	80 Acres per day	57.0	110.0	37.0	72.0
Wettable Powders for Groundboom application (8)		0.50 lb ai per acre	80 Acres per day	7.1	96.0	4.7	63.0
Mixing/Loading Liquids for Chemigation application (9)		0.38 lb ai per acre	350 Acres per day	17.0	34.0	11.0	22.0
Wettable Powders for Chemigation application (10)		0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Mixing/Loading Liquids for Chemigation application (11)		0.50 lb ai per acre	350 Acres per day	13.0	26.0	8.4	17.0
Wettable Powders for Chemigation application (12)		0.50 lb ai per acre	350 Acres per day	1.6	22.0	1.1	14.0
Wettable Powders for Groundboom application (13)	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	9.5	130.0	6.2	83.0
Wettable Powders for Groundboom application (14)		0.50 lb ai per acre	80 Acres per day	7.1	96.0	4.7	63.0
Applicator							
Sprays for Aerial application (15)	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	No Data	58.0	No Data	38.0
Sprays for Aerial application (16)		0.50 lb ai per acre	350 Acres per day	No Data	44.0	No Data	28.0
Sprays for Groundboom application (17)		0.38 lb ai per acre	80 Acres per day	12.0	260.0	76.0	170.0
Sprays for Groundboom application (18)		0.50 lb ai per acre	80 Acres per day	88.0	190.0	57.0	120.0
Sprays for Groundboom application (19)	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	120.0	260.0	76.0	170.0
Sprays for Groundboom application (20)		0.50 lb ai per acre	80 Acres per day	88.0	190.0	57.0	120.0
Flagger							

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Flagging for Sprays application (21)	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	30.0	1300.0	19.0	840.0
Flagging for Sprays application (22)		0.50 lb ai per acre	350 Acres per day	22.0	960.0	14.0	630.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 20:Occupational Handler Short and intermediate-Term Risk From Azinphos-Methyl on Ornamental Plants

Exposure Scenario (Scenario #)	CropGroup (Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Wettable Powders for Aerial application (1)	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	2.2	29.0	1.4	19.0
Wettable Powders for Aerial application (2)		2.00 lb ai per acre	350 Acres per day	0.41	5.5	0.27	3.6
Wettable Powders for Airblast application (3)		0.38 lb ai per acre	20 Acres per day	38.0	510.0	25.0	330.0
Wettable Powders for Airblast application (4)		0.38 lb ai per acre	40 Acres per day	19.0	260.0	12.0	170.0
Wettable Powders for Airblast application (5)		2.00 lb ai per acre	20 Acres per day	7.1	96.0	4.7	63.0
Wettable Powders for Airblast application (6)		2.00 lb ai per acre	40 Acres per day	3.6	48.0	2.3	31.0
Wettable Powders for Groundboom application (7)		0.38 lb ai per acre	80 Acres per day	9.5	130.0	6.2	83.0
Wettable Powders for Groundboom application (8)		2.00 lb ai per acre	80 Acres per day	1.8	24.0	1.2	16.0
Applicator							
Sprays for Aerial application (9)	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	No Data	58.0	No Data	38.0
Sprays for Aerial application (10)		2.00 lb ai per acre	350 Acres per day	No Data	11.0	No Data	7.1
Sprays for Airblast application (11)		0.38 lb ai per acre	20 Acres per day	24.0	260.0	15.0	170.0
Sprays for Airblast application (12)		0.38 lb ai per acre	40 Acres per day	12.0	130.0	7.6	86.0
Sprays for Airblast application (13)		2.00 lb ai per acre	20 Acres per day	4.4	50.0	2.9	32.0
Sprays for Airblast application (14)		2.00 lb ai per acre	40 Acres per day	2.2	25.0	1.4	16.0
Sprays for Groundboom application (15)		0.38 lb ai per acre	80 Acres per day	120.0	260.0	76.0	170.0
Sprays for Groundboom application (16)		2.00 lb ai per acre	80 Acres per day	22.0	48.0	14.0	31.0
Flagger							
Flagging for Sprays application (17)	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	30.0	1300.0	19.0	840.0
Flagging for Sprays application (18)		2.00 lb ai per acre	350 Acres per day	5.6	240.0	3.6	160.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 21:Occupational Handler Short and Intermediate-Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards)

Exposure Scenario (Scenario #)	CropGroup(Crop)	Application Rate	Amount Treated	Total Short Term MOE		Total Intermediate-Term MOE	
				Max PPE	Eng. Control	Max PPE	Eng. Control
Mixer/Loader							
Mixing/Loading Liquids for Aerial application (1)	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	4.3	8.5	2.8	5.5
Mixing/Loading Liquids for Aerial application (2)		1.50 lb ai per acre	1200 Acres per day	1.3	2.5	0.82	1.6
Wettable Powders for Aerial application (3)		1.50 lb ai per acre	350 Acres per day	0.54	7.3	0.36	4.8
Wettable Powders for Aerial application (4)		1.50 lb ai per acre	1200 Acres per day	0.16	2.1	0.10	1.4
Applicator							
Sprays for Aerial application (5)	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	No Data	15.0	No Data	9.4
Sprays for Aerial application (6)		1.50 lb ai per acre	1200 Acres per day	No Data	4.3	No Data	2.8
Flagger							
Flagging for Sprays application (7)	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	7.4	320.0	4.8	210.0

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

Table 22: Exposure Scenario Descriptions for the Use of Azinphos methyl

Exposure Scenario	Data Source	Standard Assumptions[a] (8-hr work day)	Comments[b]
Mixer/Loader Descriptors			
Mixing/Loading Liquid Formulations	PHED V1.1	Aerial/chemiga- tion (350 acres); for cotton and alfalfa (1200 acres) Groundboom: (80 acres), for cotton and alfalfa (200 acres) Airblast sprayers (20 and 40 acres)	**Baseline:** "Best Available" grades: Hands, dermal, and inhalation acceptable grades. Hands = 53 replicates; Dermal = 25 to 122 replicates; Inhalation = 85 replicates. High confidence in dermal and inhalation data. **PPE:** "Best Available" grades: Hands and dermal acceptable grades. Hands = 59 replicates; Dermal = 25 to 122 replicates. High confidence in dermal data. **Engineering Controls:** "Best Available" grades: Hands, dermal, and inhalation acceptable grades. Hands = 31 replicates; Dermal = 16 to 22 replicates; Inhalation = 27 replicates. High confidence in dermal and inhalation data. PHED data used for baseline, no Protection Factors (PFs) were necessary. A 50% PF was used for PPE to represent double layer of clothing. Gloves were worn during use of engineering controls.
Mixing/Loading Wettable Powders	PHED V1.1	Aerial/chemigation (350 acres); for cotton and alfalfa (1200 acres) Groundboom: (80 acres), for cotton and alfalfa (200 acres) Airblast sprayers (20 and 40 acres)	**Baseline:** "Best Available" grades: Hands = All grades; dermal and inhalation = grades ABC. Hands = 28 replicates, dermal = 22 to 45 replicates, inhalation = 44 replicates. Low confidence in dermal data, medium confidence in inhalation data. **Engineering Controls:** "Best Available" grades: Hands and inhalation = all grades; dermal = acceptable grades. Hands = 5 replicates, dermal = 6 to 15 replicates, inhalation = 15 replicates. Low confidence in all data. PHED data used for baseline, no PFs were necessary. A 50% PF was used for PPE to represent double layer of clothing.
Applicator Descriptors			
Applying Sprays with a Fixed-wing Aircraft (Enclosed Cockpit)	PHED V1.1	350 acres for cotton and alfalfa (1200 acres)	**Engineering Controls:** "Best Available" grades: Hands = acceptable grades; dermal, and inhalation A,B,C grades. Hands = 34 replicates; dermal = 24 to 48 replicates; inhalation = 23 replicates. Medium confidence in dermal and inhalation data. PHED data used no PFs were necessary.
Applying Sprays with a Groundboom Sprayer	PHED V1.1	80 acres (potatoes) for cotton and alfalfa (200 acres)	**Baseline:** "Best Available" grades: Hands, dermal, and inhalation acceptable grades. Hands = 29 replicates; Dermal = 32 to 42 replicates; Inhalation = 22 replicates. High confidence in dermal and inhalation data. **PPE:** "Best Available" grades: Hands = A,B,C grades; dermal = acceptable grades. Hands = 21 replicates; Dermal = 32 to 42 replicates. Medium confidence in dermal data. **Engineering Controls:** "Best Available" grades: Hands and dermal = A,B,C grades. Hands = 16 replicates; Dermal = 20 to 31 replicates. Medium confidence in dermal data. PHED data used for baseline, no PFs were necessary. a 50% PF was used for PPE to represent a double layer of clothing.

Table 22: Exposure Scenario Descriptions for the Use of Azinphos methyl

Exposure Scenario	Data Source	Standard Assumptions[a] (8-hr work day)	Comments[b]
Applying Sprays with an Airblast Sprayer	PHED V1.1	20 and 40 acres	**Baseline:** "Best Available" grades: Hands, dermal, and inhalation acceptable grades. Hands = 22 replicates; Dermal = 32 to 49 replicates; Inhalation = 47 replicates. High confidence in dermal and inhalation data. **PPE:** "Best Available" grades: Hands and dermal acceptable grades. Hands = 18 replicates; Dermal = 32 to 49 replicates; Inhalation = 47 replicates. High confidence in dermal and inhalation data. **Engineering Controls:** "Best Available" grades: Hands, dermal = acceptable grades; inhalation = grades ABC. Hands = 20 replicates; Dermal = 20 to 30 replicates; Inhalation = 9 replicates. High confidence in dermal and low confidence in inhalation data. PHED data used for baseline, no Protection Factors (PFs) were necessary. A 50% PF was used for PPE to represent double layer of clothing. Gloves were worn during use of engineering controls.
Flagger Descriptors			
Flagging Spray Applications	PHED V1.1	350 acres	**Baseline:** "Best Available" grades: Hands, dermal, and inhalation acceptable grades. Hands = 16 replicates; Dermal = 16 to 18 replicates; Inhalation = 18 replicates. High confidence in dermal and inhalation data. A 50% PF was added for PPE to represent a double layer of clothing. A 98% PF was added for Engineering controls to represent an enclosed cab.

a Standard Assumptions based on an 8-hour work day as estimated by OREB. BEAD data were not available.

b "Best Available" grades are defined by OREB SOP for meeting Subdivision U Guidelines. Best available grades are assigned as follows: matrices with grades A and B data and a minimum of 15 replicates; if not available, then grades A, B, and C data and a minimum of 15 replicates; if not available, then all data regardless of the quality and number of replicates. Data confidence are assigned as follows:

High = grades A and B and 15 or more replicates per body part
Medium = grades A, B, and C and 15 or more replicates per body part
Low = grades A, B, C, D, and E or any combination of grades with less than 15 replicates

APPENDIX

TOTAL SHORT- TERM AND INTERMEDIATE- TERM HANDLER EXPOSURE RISK

Table A1:Occupational Handler Short Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crops)	Application Rate	Amount Treated	Dermal[b] Dose (mg/kg/day)	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	3.7	43	Roots&Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Wettable Powders for Aerial application (2)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Mixing/Loading Liquids for Aerial application (4)	2.9	1.2		0.38 lb ai per acre	350 Acres per day	5.4	< 1	0.0023	140	0.10
Wettable Powders for Chemigation application (5)	3.7	43		0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Wettable Powders for Chemigation application (6)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Chemigation application (7)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Mixing/Loading Liquids for Chemigation application (8)	2.9	1.2		0.38 lb ai per acre	350 Acres per day	5.4	< 1	0.0023	140	0.10
Mixing/Loading Liquids for Groundboom application (9)	2.9	1.2		0.38 lb ai per acre	80 Acres per day	1.2	< 1	0.00051	620	0.45
Mixing/Loading Liquids for Groundboom application (10)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	2.5	< 1	0.0010	310	0.23
Wettable Powders for Groundboom application (11)	3.7	43		0.75 lb ai per acre	80 Acres per day	3.2	< 1	0.037	9	0.17
Wettable Powders for Groundboom application (12)	3.7	43		0.38 lb ai per acre	80 Acres per day	1.6	< 1	0.018	17	0.35
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Roots&Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00063	510	43.0
Sprays for Groundboom application (16)	0.014	0.74		0.38 lb ai per acre	80 Acres per day	0.006	93	0.00032	1000	85.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Roots&Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.021	27	0.00066	490	26.0
Flagging for Sprays application (18)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.041	14	0.0013	240	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) = Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg).
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table A2:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation[a] Unit Exposure (Ug/lb ai)[a]	Crop	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation[e] MOE	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	3.7	43	Roots&Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Wettable Powders for Aerial application (2)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Mixing/Loading Liquids for Aerial application (4)	2.9	1.2		0.38 lb ai per acre	350 Acres per day	2.3	< 1	0.0023	140	0.066
Wettable Powders for Chemigation application (5)	3.7	43		0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Wettable Powders for Chemigation application (6)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Chemigation application (7)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Mixing/Loading Liquids for Chemigation application (8)	2.9	1.2		0.38 lb ai per acre	350 Acres per day	2.3	< 1	0.0023	140	0.066
Mixing/Loading Liquids for Groundboom application (9)	2.9	1.2		0.38 lb ai per acre	80 Acres per day	0.52	< 1	0.00051	620	0.29
Mixing/Loading Liquids for Groundboom application (10)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	1.0	< 1	0.0010	310	0.14
Wettable Powders for Groundboom application (11)	3.7	43		0.75 lb ai per acre	80 Acres per day	1.3	< 1	0.037	9	0.11
Wettable Powders for Groundboom application (12)	3.7	43		0.38 lb ai per acre	80 Acres per day	0.66	< 1	0.018	17	0.22
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Roots&Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00063	510	28.0
Sprays for Groundboom application (16)	0.014	0.74		0.38 lb ai per acre	80 Acres per day	0.0025	60	0.00032	1000	57.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Roots&Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.0086	17	0.00066	490	17.0
Flagging for Sprays application (18)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.017	9	0.0013	240	8.4

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table A3:Occupational Handler Short Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.17	8.6	Ruots& Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Wettable Powders for Aerial application (2)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Mixing/Loading Liquids for Aerial application (4)	0.023	0.24		0.38 lb ai per acre	350 Acres per day	0.043	13	0.00045	710	13.0
Wettable Powders for Chemigation application (5)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Wettable Powders for Chemigation application (6)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Chemigation application (7)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Mixing/Loading Liquids for Chemigation application (8)	0.023	0.24		0.38 lb ai per acre	350 Acres per day	0.043	13	0.00045	710	13.0
Mixing/Loading Liquids for Groundboom application (9)	0.023	0.24		0.38 lb ai per acre	80 Acres per day	0.0099	57	0.00010	3100	56.0
Mixing/Loading Liquids for Groundboom application(10)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.020	28	0.00021	1600	28.0
Wettable Powders for Groundboom application (11)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.15	4	0.0074	43	3.5
Wettable Powders for Groundboom application (12)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.073	8	0.0037	87	7.1
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Ruots& Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00013	2500	46.0
Sprays for Groundboom application (16)	0.014	0.15		0.38 lb ai per acre	80 Acres per day	0.006	93	0.000064	5000	92.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Ruots& Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.00013	2400	30.0
Flagging for Sprays application (18)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00026	1200	15.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table A4:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.17	8.6	Ruots& Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Wettable Powders for Aerial application (2)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Mixing/Loading Liquids for Aerial application (4)	0.023	0.24		0.38 lb ai per acre	350 Acres per day	0.018	8	0.00045	710	8.2
Wettable Powders for Chemigation application (5)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Wettable Powders for Chemigation application (6)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Chemigation application (7)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Mixing/Loading Liquids for Chemigation application (8)	0.023	0.24		0.38 lb ai per acre	350 Acres per day	0.018	8	0.00045	710	8.2
Mixing/Loading Liquids for Groundboom application (9)	0.023	0.24		0.38 lb ai per acre	80 Acres per day	0.0041	36	0.00010	3100	36.0
Mixing/Loading Liquids for Groundboom application (10)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.0082	18	0.00021	1600	18.0
Wettable Powders for Groundboom application (11)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.061	2	0.0074	43	2.3
Wettable Powders for Groundboom application (12)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.030	5	0.0037	87	4.7
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Ruots& Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00013	2500	30.0
Sprays for Groundboom application (16)	0.014	0.15		0.38 lb ai per acre	80 Acres per day	0.0025	60	0.000064	5000	59.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Ruots& Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.00013	2400	19.0
Flagging for Sprays application (18)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00026	1200	9.5

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table A5:Occupational Handler Short Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop group (crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.13	4.3	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Wettable Powders for Aerial application (2)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Mixing/Loading Liquids for Aerial application (4)	0.017	0.12		0.38 lb ai per acre	350 Acres per day	0.032	18	0.00023	1400	17.0
Wettable Powders for Chemigation application (5)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Wettable Powders for Chemigation application (6)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Chemigation application (7)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Mixing/Loading Liquids for Chemigation application (8)	0.017	0.12		0.38 lb ai per acre	350 Acres per day	0.032	18	0.00023	1400	17.0
Mixing/Loading Liquids for Groundboom application (9)	0.017	0.12		0.38 lb ai per acre	80 Acres per day	0.0073	77	0.000051	6200	76.0
Mixing/Loading Liquids for Groundboom application (10)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.015	38	0.00010	3100	38.0
Wettable Powders for Groundboom application (11)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.11	5	0.0037	87	4.8
Wettable Powders for Groundboom application (12)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.056	10	0.0018	170	9.5
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Roots & Tuber Vegetable (Potato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0094	59	0.000063	5000	59.0
Sprays for Groundboom application (16)	0.011	0.074		0.38 lb ai per acre	80 Acres per day	0.0047	120	0.000032	10000	120.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.000066	4900	30.0
Flagging for Sprays application (18)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00013	2400	15.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table A6:Occupational Handler Intermediate -Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.13	4.3	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Wettable Powders for Aerial application (2)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Mixing/Loading Liquids for Aerial application (4)	0.017	0.12		0.38 lb ai per acre	350 Acres per day	0.013	11	0.00023	1400	11.0
Wettable Powders for Chemigation application (5)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Wettable Powders for Chemigation application (6)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Chemigation application (7)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Mixing/Loading Liquids for Chemigation application (8)	0.017	0.12		0.38 lb ai per acre	350 Acres per day	0.013	11	0.00023	1400	11.0
Mixing/Loading Liquids for Groundboom application (9)	0.017	0.12		0.38 lb ai per acre	80 Acres per day	0.0030	49	0.000051	6200	49.0
Mixing/Loading Liquids for Groundboom application(10)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.0061	25	0.00010	3100	24.0
Wettable Powders for Groundboom application (11)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.046	3	0.0037	87	3.1
Wettable Powders for Groundboom application (12)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.023	6	0.0018	170	6.2
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Roots & Tuber Vegetable (Potato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0039	38	0.000063	5000	38.0
Sprays for Groundboom application (16)	0.011	0.074		0.38 lb ai per acre	80 Acres per day	0.0020	76	0.000032	10000	76.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Roots & Tuber Vegetable (Potato)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.000066	4900	19.0
Flagging for Sprays application (18)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00013	2400	9.6

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table A7:Occupational Handler Short Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop group (crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.0098	0.24	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Mixing/Loading Liquids for Aerial application (4)	0.0086	0.083		0.38 lb ai per acre	350 Acres per day	0.016	35	0.00016	2100	34.0
Wettable Powders for Chemigation application (5)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Wettable Powders for Chemigation application (6)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Chemigation application (7)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Mixing/Loading Liquids for Chemigation application (8)	0.0086	0.083		0.38 lb ai per acre	350 Acres per day	0.016	35	0.00016	2100	34.0
Mixing/Loading Liquids for Groundboom application (9)	0.0086	0.083		0.38 lb ai per acre	80 Acres per day	0.0037	150	0.000036	9000	150.0
Mixing/Loading Liquids for Groundboom application (10)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0074	76	0.000071	4500	75.0
Wettable Powders for Groundboom application (11)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0084	67	0.00021	1600	64.0
Wettable Powders for Groundboom application (12)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0042	130	0.00010	3100	130.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.0094	60	0.00013	2500	58.0
Sprays for Aerial application (14)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.019	30	0.00026	1300	29.0
Sprays for Groundboom application (15)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0043	130	0.000037	8700	13.0
Sprays for Groundboom application (16)	0.005	0.043		0.38 lb ai per acre	80 Acres per day	0.0021	260	0.000018	17000	260.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.00041	1400	0.000013	24000	1300.0
Flagging for Sprays application (18)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00083	680	0.000026	12000	640.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table A8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Roots and Tuber Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.0098	0.24	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Mixing/Loading Liquids for Aerial application (4)	0.0086	0.083		0.38 lb ai per acre	350 Acres per day	0.0067	22	0.00016	2100	22.0
Wettable Powders for Chemigation application (5)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Wettable Powders for Chemigation application (6)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Chemigation application (7)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Mixing/Loading Liquids for Chemigation application (8)	0.0086	0.083		0.38 lb ai per acre	350 Acres per day	0.0067	22	0.00016	2100	22.0
Mixing/Loading Liquids for Groundboom application (9)	0.0086	0.083		0.38 lb ai per acre	80 Acres per day	0.0015	98	0.000036	9000	97.0
Mixing/Loading Liquids for Groundboom application(10)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0031	49	0.000071	4500	48.0
Wettable Powders for Groundboom application (11)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0035	43	0.00021	1600	42.0
Wettable Powders for Groundboom application (12)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0018	86	0.00010	3100	83.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.0039	38	0.00013	2500	38.0
Sprays for Aerial application (14)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.0078	19	0.00026	1300	19.0
Sprays for Groundboom application (15)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0018	84	0.000037	8700	83.0
Sprays for Groundboom application (16)	0.005	0.043		0.38 lb ai per acre	80 Acres per day	0.00089	170	0.000018	17000	170.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Roots & Tuber Vegetable (potato)	0.38 lb ai per acre	350 Acres per day	0.00017	870	0.000013	24000	840.0
Flagging for Sprays application (18)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00034	440	0.000026	12000	420.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table B1:Occupational Handler Short Term Risk From Azinphos-Methyl on Legume Vegetables at Baseline

Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	3.6	< 1	0.0015	210	0.15
Mixing/Loading Liquids for Aerial application (2)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Aerial application (3)	3.7	43		0.25 lb ai per acre	350 Acres per day	4.6	< 1	0.054	6	0.12
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.25 lb ai per acre	80 Acres per day	0.83	1	0.00034	930	0.68
Mixing/Loading Liquids for Groundboom application (6)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Groundboom application (7)	3.7	43		0.50 lb ai per acre	80 Acres per day	2.1	< 1	0.025	13	0.26
Wettable Powders for Groundboom application (8)	3.7	43		0.25 lb ai per acre	80 Acres per day	1.1	1	0.012	26	0.52
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.008	70	0.00042	760	64.0
Sprays for Groundboom application (12)	0.014	0.74		0.25 lb ai per acre	80 Acres per day	0.004	140	0.00021	1500	130.0
Flagger										
Flagging for Sprays application (13)	0.011	0.35	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.014	41	0.00044	730	39.0
Flagging for Sprays application (14)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table B2:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Legume Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	1.5	< 1	0.0015	210	0.099
Mixing/Loading Liquids for Aerial application (2)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Aerial application (3)	3.7	43		0.25 lb ai per acre	350 Acres per day	1.9	< 1	0.054	6	0.077
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Groundboom application(5)	2.9	1.2		0.25 lb ai per acre	80 Acres per day	0.35	< 1	0.00034	930	0.43
Mixing/Loading Liquids for Groundboom application(6)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Groundboom application (7)	3.7	43		0.50 lb ai per acre	80 Acres per day	0.88	< 1	0.025	13	0.17
Wettable Powders for Groundboom application (8)	3.7	43		0.25 lb ai per acre	80 Acres per day	0.44	< 1	0.012	26	0.34
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.00042	760	42.0
Sprays for Groundboom application (12)	0.014	0.74		0.25 lb ai per acre	80 Acres per day	0.0017	90	0.00021	1500	85.0
Flagger										
Flagging for Sprays application (13)	0.011	0.35	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.0057	26	0.00044	730	25.0
Flagging for Sprays application (14)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table B3:Occupational Handler Short Term Risk From Azinphos-Methyl on Legume Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.029	19	0.0003	1100	19.0
Mixing/Loading Liquids for Aerial application (2)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Aerial application (3)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.21	3	0.011	30	2.4
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Groundboom application(5)	0.023	0.24		0.25 lb ai per acre	80 Acres per day	0.0066	85	0.000069	4700	84.0
Mixing/Loading Liquids for Groundboom application(6)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Groundboom application (7)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.097	6	0.0049	65	5.3
Wettable Powders for Groundboom application (8)	0.17	8.6		0.25 lb ai per acre	80 Acres per day	0.049	12	0.0025	130	11.0
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.008	70	0.000086	3700	69.0
Sprays for Groundboom application (12)	0.014	0.15		0.25 lb ai per acre	80 Acres per day	0.004	140	0.000043	7500	140.0
Flagger										
Flagging for Sprays application (13)	0.01	0.07	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.013	45	0.000088	3700	44.0
Flagging for Sprays application (14)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table B4: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on LegumeVegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.012	13	0.0003	1100	12.0
Mixing/Loading Liquids for Aerial application (2)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Aerial application (3)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.089	2	0.011	30	1.6
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Groundboom application(5)	0.023	0.24		0.25 lb ai per acre	80 Acres per day	0.0027	55	0.000069	4700	54.0
Mixing/Loading Liquids for Groundboom application(6)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Groundboom application (7)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.041	4	0.0049	65	3.5
Wettable Powders for Groundboom application (8)	0.17	8.6		0.25 lb ai per acre	80 Acres per day	0.020	7	0.0025	130	7.0
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.000086	3700	44.0
Sprays for Groundboom application (12)	0.014	0.15		0.25 lb ai per acre	80 Acres per day	0.0017	90	0.000043	7500	89.0
Flagger										
Flagging for Sprays application (13)	0.01	0.07	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.0052	29	0.000088	3700	29.0
Flagging for Sprays application (14)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table B5:Occupational Handler Short Term Risk From Azinphos-Methyl on Legume Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.021	26	0.00015	2100	26.0
Mixing/Loading Liquids for Aerial application (2)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Aerial application (3)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.16	3	0.0054	60	3.3
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.25 lb ai per acre	80 Acres per day	0.0049	120	0.000034	9300	120.0
Mixing/Loading Liquids for Groundboom application (6)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Groundboom application (7)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.074	8	0.0025	130	7.1
Wettable Powders for Groundboom application (8)	0.13	4.3		0.25 lb ai per acre	80 Acres per day	0.037	15	0.0012	260	14.0
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0063	89	0.000042	7600	88.0
Sprays for Groundboom application (12)	0.011	0.074		0.25 lb ai per acre	80 Acres per day	0.0031	180	0.000021	15000	180.0
Flagger										
Flagging for Sprays application (13)	0.01	0.035	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.013	45	0.000044	7300	45.0
Flagging for Sprays application (14)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table B6:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Legume Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.0089	17	0.00015	2100	17.0
Mixing/Loading Liquids for Aerial application (2)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Aerial application (3)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.068	2	0.0054	60	2.1
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Groundboom application(5)	0.017	0.12		0.25 lb ai per acre	80 Acres per day	0.0020	74	0.000034	9300	73.0
Mixing/Loading Liquids for Groundboom application(6)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Groundboom application (7)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.031	5	0.0025	130	4.7
Wettable Powders for Groundboom application (8)	0.13	4.3		0.25 lb ai per acre	80 Acres per day	0.015	10	0.0012	260	9.3
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0026	57	0.000042	7600	57.0
Sprays for Groundboom application (12)	0.011	0.074		0.25 lb ai per acre	80 Acres per day	0.0013	110	0.000021	15000	110.0
Flagger										
Flagging for Sprays application (13)	0.01	0.035	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.0052	29	0.000044	7300	29.0
Flagging for Sprays application (14)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table B7:Occupational Handler Short Term Risk From Azinphos-Methyl on Legume Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.011	52	0.00010	3100	51.0
Mixing/Loading Liquids for Aerial application (2)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Aerial application (3)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.026	21	0.0003	1100	21.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.053	11	0.0006	530	10.0
Mixing/Loading Liquids for Groundboom application(5)	0.0086	0.083		0.25 lb ai per acre	80 Acres per day	0.0025	230	0.000024	13000	22.0
Mixing/Loading Liquids for Groundboom application(6)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0049	110	0.000047	6700	110.0
Wettable Powders for Groundboom application (7)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0056	100	0.00014	2300	96.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.25 lb ai per acre	80 Acres per day	0.0028	200	0.000069	4700	190.0
Applicator										
Sprays for Aerial application (9)	0.005	0.068	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.0063	90	0.000085	3800	88.0
Sprays for Aerial application (10)	0.005	0.068		0.50 lb ai per acre	350 Acres per day	0.013	45	0.00017	1900	44.0
Sprays for Groundboom application (11)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0029	200	0.000025	13000	190.0
Sprays for Groundboom application (12)	0.005	0.043		0.25 lb ai per acre	80 Acres per day	0.0014	390	0.000012	26000	390.0
Flagger										
Flagging for Sprays application (13)	0.00022	0.007	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.00028	2000	0.0000088	37000	1900.0
Flagging for Sprays application (14)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table B8:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Legume Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.0045	33	0.00010	3100	33.0
Mixing/Loading Liquids for Aerial application (2)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Aerial application (3)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.0051	29	0.0003	1100	29.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Groundboom application(5)	0.0086	0.083		0.25 lb ai per acre	80 Acres per day	0.0010	150	0.000024	13000	140.0
Mixing/Loading Liquids for Groundboom application(6)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Groundboom application (7)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0023	64	0.00014	2300	63.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.25 lb ai per acre	80 Acres per day	0.0012	130	0.000069	4700	130.0
Applicator										
Sprays for Aerial application (9)	0.005	0.068	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.0026	58	0.000085	3800	57.0
Sprays for Aerial application (10)	0.005	0.068		0.50 lb ai per acre	350 Acres per day	0.0052	29	0.00017	1900	28.0
Sprays for Groundboom application (11)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0012	130	0.000025	13000	120.0
Sprays for Groundboom application (12)	0.005	0.043		0.25 lb ai per acre	80 Acres per day	0.00060	250	0.000012	26000	250.0
Flagger										
Flagging for Sprays application (13)	0.00022	0.007	Legume Vegetable (Snap Bean, Succulent Bean)	0.25 lb ai per acre	350 Acres per day	0.00011	1300	0.0000088	37000	1300.0
Flagging for Sprays application (14)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table C1:Occupational Handler Short Term Risk From Azinphos-Methyl on Citrus Fruits at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	18.0	< 1	0.0075	43	0.031
Mixing/Loading Liquids for Aerial application (2)	2.9	1.2		2.00 lb ai per acre	350 Acres per day	29	< 1	0.012	27	0.019
Wettable Powders for Aerial application (3)	3.7	43		2.00 lb ai per acre	350 Acres per day	37	< 1	0.43	1	0.015
Wettable Powders for Aerial application (4)	3.7	43		1.25 lb ai per acre	350 Acres per day	23.0	< 1	0.27	1	0.024
Mixing/Loading Liquids for Airblast application (5)	2.9	1.2		1.25 lb ai per acre	20 Acres per day	1.0	1	0.00043	750	0.54
Mixing/Loading Liquids for Airblast application (6)	2.9	1.2		2.00 lb ai per acre	20 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Airblast application (7)	3.7	43		1.25 lb ai per acre	20 Acres per day	1.3	< 1	0.015	21	0.42
Wettable Powders for Airblast application (8)	3.7	43		2.00 lb ai per acre	20 Acres per day	2.1	< 1	0.025	13	0.26
Mixing/Loading Liquids for Airblast application (9)	2.9	1.2		1.25 lb ai per acre	40 Acres per day	2.1	< 1	0.00086	370	0.27
Mixing/Loading Liquids for Airblast application (10)	2.9	1.2		2.00 lb ai per acre	40 Acres per day	3.3	< 1	0.0014	230	0.17
Wettable Powders for Airblast application (11)	3.7	43		1.25 lb ai per acre	40 Acres per day	2.6	< 1	0.031	10	0.21
Wettable Powders for Airblast application (12)	3.7	43		2.00 lb ai per acre	40 Acres per day	4.2	< 1	0.049	7	0.13
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.36	4.5		1.25 lb ai per acre	20 Acres per day	0.13	4	0.0016	200	4.3
Sprays for Airblast application (16)	0.36	4.5		2.00 lb ai per acre	20 Acres per day	0.21	3	0.0026	120	2.7
Sprays for Airblast application (17)	0.36	4.5		2.00 lb ai per acre	40 Acres per day	0.41	1	0.0051	62	1.3
Sprays for Airblast application (18)	0.36	4.5		1.25 lb ai per acre	40 Acres per day	0.26	2	0.0032	100	2.1
Flagger										
Flagging for Sprays application (19)	0.011	0.35	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	0.11	5	0.0035	91	4.8
Flagging for Sprays application (20)	0.011	0.35		1.25 lb ai per acre	350 Acres per day	0.069	8	0.0022	150	7.7

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table C2:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Citrus Fruits at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	7.6	< 1	0.0075	43	0.020
Mixing/Loading Liquids for Aerial application (2)	2.9	1.2		2.00 lb ai per acre	350 Acres per day	12.0	< 1	0.012	27	0.012
Wettable Powders for Aerial application (3)	3.7	43		2.00 lb ai per acre	350 Acres per day	15.0	< 1	0.43	1	0.0096
Wettable Powders for Aerial application (4)	3.7	43		1.25 lb ai per acre	350 Acres per day	9.6	< 1	0.27	1	0.015
Mixing/Loading Liquids for Airblast application (5)	2.9	1.2		1.25 lb ai per acre	20 Acres per day	0.43	< 1	0.00043	750	0.35
Mixing/Loading Liquids for Airblast application (6)	2.9	1.2		2.00 lb ai per acre	20 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Airblast application (7)	3.7	43		1.25 lb ai per acre	20 Acres per day	0.55	< 1	0.015	21	0.27
Wettable Powders for Airblast application (8)	3.7	43		2.00 lb ai per acre	20 Acres per day	0.88	< 1	0.025	13	0.17
Mixing/Loading Liquids for Airblast application (9)	2.9	1.2		1.25 lb ai per acre	40 Acres per day	0.86	< 1	0.00086	370	0.17
Mixing/Loading Liquids for Airblast application (10)	2.9	1.2		2.00 lb ai per acre	40 Acres per day	1.4	< 1	0.0014	230	0.11
Wettable Powders for Airblast application (11)	3.7	43		1.25 lb ai per acre	40 Acres per day	1.1	< 1	0.031	10	0.13
Wettable Powders for Airblast application (12)	3.7	43		2.00 lb ai per acre	40 Acres per day	1.8	< 1	0.049	7	0.084
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.36	4.5		1.25 lb ai per acre	20 Acres per day	0.054	3	0.0016	200	2.8
Sprays for Airblast application (16)	0.36	4.5		2.00 lb ai per acre	20 Acres per day	0.086	2	0.0026	120	1.7
Sprays for Airblast application (17)	0.36	4.5		2.00 lb ai per acre	40 Acres per day	0.17	1	0.0051	62	0.86
Sprays for Airblast application (18)	0.36	4.5		1.25 lb ai per acre	40 Acres per day	0.11	1	0.0032	100	1.4
Flagger										
Flagging for Sprays application (19)	0.011	0.35	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	0.046	3	0.0035	91	3.2
Flagging for Sprays application (20)	0.011	0.35		1.25 lb ai per acre	350 Acres per day	0.029	5	0.0022	150	5.1

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table C3:Occupational Handler Short Term Risk From Azinphos-Methyl on Citrus Fruits at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	0.14	4	0.0015	210	3.8
Mixing/Loading Liquids for Aerial application (2)	0.023	0.24		2.00 lb ai per acre	350 Acres per day	0.23	2	0.0024	130	2.4
Wettable Powders for Aerial application (3)	0.17	8.6		2.00 lb ai per acre	350 Acres per day	1.7	< 1	0.086	4	0.30
Wettable Powders for Aerial application (4)	0.17	8.6		1.25 lb ai per acre	350 Acres per day	1.1	1	0.054	6	0.48
Mixing/Loading Liquids for Airblast application (5)	0.023	0.24		1.25 lb ai per acre	20 Acres per day	0.0082	68	0.000086	3700	67.0
Mixing/Loading Liquids for Airblast application (6)	0.023	0.24		2.00 lb ai per acre	20 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Airblast application (7)	0.17	8.6		1.25 lb ai per acre	20 Acres per day	0.061	9	0.0031	100	8.5
Wettable Powders for Airblast application (8)	0.17	8.6		2.00 lb ai per acre	20 Acres per day	0.097	6	0.0049	65	5.3
Mixing/Loading Liquids for Airblast application (9)	0.023	0.24		1.25 lb ai per acre	40 Acres per day	0.016	34	0.00017	1900	33.0
Mixing/Loading Liquids for Airblast application (10)	0.023	0.24		2.00 lb ai per acre	40 Acres per day	0.026	21	0.00027	1200	21.0
Wettable Powders for Airblast application (11)	0.17	8.6		1.25 lb ai per acre	40 Acres per day	0.12	5	0.0061	52	4.2
Wettable Powders for Airblast application (12)	0.17	8.6		2.00 lb ai per acre	40 Acres per day	0.19	3	0.0098	33	2.6
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.24	0.9		1.25 lb ai per acre	20 Acres per day	0.086	7	0.00032	1000	6.5
Sprays for Airblast application (16)	0.24	0.9		2.00 lb ai per acre	20 Acres per day	0.14	4	0.00051	620	4.1
Sprays for Airblast application (17)	0.24	0.9		2.00 lb ai per acre	40 Acres per day	0.27	2	0.0010	310	2.0
Sprays for Airblast application (18)	0.24	0.9		1.25 lb ai per acre	40 Acres per day	0.17	3	0.00064	500	3.2
Flagger										
Flagging for Sprays application (19)	0.01	0.07	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	0.1	6	0.0007	460	5.5
Flagging for Sprays application (20)	0.01	0.07		1.25 lb ai per acre	350 Acres per day	0.063	9	0.00044	730	8.9

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table C4:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Citrus Fruits at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	0.060	3	0.0015	210	2.5
Mixing/Loading Liquids for Aerial application (2)	0.023	0.24		2.00 lb ai per acre	350 Acres per day	0.096	2	0.0024	130	1.5
Wettable Powders for Aerial application (3)	0.17	8.6		2.00 lb ai per acre	350 Acres per day	0.71	< 1	0.086	4	0.20
Wettable Powders for Aerial application (4)	0.17	8.6		1.25 lb ai per acre	350 Acres per day	0.44	< 1	0.054	6	0.32
Mixing/Loading Liquids for Airblast application (5)	0.023	0.24		1.25 lb ai per acre	20 Acres per day	0.0034	44	0.000086	3700	43.0
Mixing/Loading Liquids for Airblast application (6)	0.023	0.24		2.00 lb ai per acre	20 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Airblast application (7)	0.17	8.6		1.25 lb ai per acre	20 Acres per day	0.025	6	0.0031	100	5.6
Wettable Powders for Airblast application (8)	0.17	8.6		2.00 lb ai per acre	20 Acres per day	0.041	4	0.0049	65	3.5
Mixing/Loading Liquids for Airblast application (9)	0.023	0.24		1.25 lb ai per acre	40 Acres per day	0.0069	22	0.00017	1900	22.0
Mixing/Loading Liquids for Airblast application (10)	0.023	0.24		2.00 lb ai per acre	40 Acres per day	0.011	14	0.00027	1200	14.0
Wettable Powders for Airblast application (11)	0.17	8.6		1.25 lb ai per acre	40 Acres per day	0.051	3	0.0061	52	2.8
Wettable Powders for Airblast application (12)	0.17	8.6		2.00 lb ai per acre	40 Acres per day	0.081	2	0.0098	33	1.8
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.24	0.9		1.25 lb ai per acre	20 Acres per day	0.036	4	0.00032	1000	4.2
Sprays for Airblast application (16)	0.24	0.9		2.00 lb ai per acre	20 Acres per day	0.057	3	0.00051	620	2.6
Sprays for Airblast application (17)	0.24	0.9		2.00 lb ai per acre	40 Acres per day	0.11	1	0.0010	310	1.3
Sprays for Airblast application (18)	0.24	0.9		1.25 lb ai per acre	40 Acres per day	0.071	2	0.00064	500	2.1
Flagger										
Flagging for Sprays application (19)	0.01	0.07	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	0.042	4	0.0007	460	3.6
Flagging for Sprays application (20)	0.01	0.07		1.25 lb ai per acre	350 Acres per day	0.026	6	0.00044	730	5.7

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table C5:Occupational Handler Short Term Risk From Azinphos-Methyl on Citrus Fruits at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	0.11	5	0.00075	430	5.2
Mixing/Loading Liquids for Aerial application (2)	0.017	0.12		2.00 lb ai per acre	350 Acres per day	0.17	3	0.0012	270	3.3
Wettable Powders for Aerial application (3)	0.13	4.3		2.00 lb ai per acre	350 Acres per day	1.3	< 1	0.043	7	0.41
Wettable Powders for Aerial application (4)	0.13	4.3		1.25 lb ai per acre	350 Acres per day	0.81	1	0.027	12	0.65
Mixing/Loading Liquids for Airblast application (5)	0.017	0.12		1.25 lb ai per acre	20 Acres per day	0.0061	92	0.000043	7500	91.0
Mixing/Loading Liquids for Airblast application (6)	0.017	0.12		2.00 lb ai per acre	20 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Airblast application (7)	0.13	4.3		1.25 lb ai per acre	20 Acres per day	0.046	12	0.0015	210	11.0
Wettable Powders for Airblast application (8)	0.13	4.3		2.00 lb ai per acre	20 Acres per day	0.074	8	0.0025	130	7.1
Mixing/Loading Liquids for Airblast application (9)	0.017	0.12		1.25 lb ai per acre	40 Acres per day	0.012	46	0.000086	3700	46.0
Mixing/Loading Liquids for Airblast application (10)	0.017	0.12		2.00 lb ai per acre	40 Acres per day	0.019	29	0.00014	2300	28.0
Wettable Powders for Airblast application (11)	0.13	4.3		1.25 lb ai per acre	40 Acres per day	0.093	6	0.0031	100	5.7
Wettable Powders for Airblast application (12)	0.13	4.3		2.00 lb ai per acre	40 Acres per day	0.15	4	0.0049	65	3.6
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.22	0.45		1.25 lb ai per acre	20 Acres per day	0.079	7	0.00016	2000	7.1
Sprays for Airblast application (16)	0.22	0.45		2.00 lb ai per acre	20 Acres per day	0.13	4	0.00026	1200	4.4
Sprays for Airblast application (17)	0.22	0.45		2.00 lb ai per acre	40 Acres per day	0.25	2	0.00051	620	2.2
Sprays for Airblast application (18)	0.22	0.45		1.25 lb ai per acre	40 Acres per day	0.16	4	0.00032	1000	3.6
Flagger										
Flagging for Sprays application (19)	0.01	0.035	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	0.1	6	0.00035	910	5.6
Flagging for Sprays application (20)	0.01	0.035		1.25 lb ai per acre	350 Acres per day	0.063	9	0.00022	1500	8.9

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table C6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Citrus Fruits at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	0.044	3	0.00075	430	3.4
Mixing/Loading Liquids for Aerial application (2)	0.017	0.12		2.00 lb ai per acre	350 Acres per day	0.071	2	0.0012	270	2.1
Wettable Powders for Aerial application (3)	0.13	4.3		2.00 lb ai per acre	350 Acres per day	0.54	< 1	0.043	7	0.27
Wettable Powders for Aerial application (4)	0.13	4.3		1.25 lb ai per acre	350 Acres per day	0.34	< 1	0.027	12	0.43
Mixing/Loading Liquids for Airblast application (5)	0.017	0.12		1.25 lb ai per acre	20 Acres per day	0.0025	59	0.000043	7500	59.0
Mixing/Loading Liquids for Airblast application (6)	0.017	0.12		2.00 lb ai per acre	20 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Airblast application (7)	0.13	4.3		1.25 lb ai per acre	20 Acres per day	0.019	8	0.0015	210	7.5
Wettable Powders for Airblast application (8)	0.13	4.3		2.00 lb ai per acre	20 Acres per day	0.031	5	0.0025	130	4.7
Mixing/Loading Liquids for Airblast application (9)	0.017	0.12		1.25 lb ai per acre	40 Acres per day	0.0051	30	0.000086	3700	29.0
Mixing/Loading Liquids for Airblast application (10)	0.017	0.12		2.00 lb ai per acre	40 Acres per day	0.0081	19	0.00014	2300	18.0
Wettable Powders for Airblast application (11)	0.13	4.3		1.25 lb ai per acre	40 Acres per day	0.039	4	0.0031	100	3.7
Wettable Powders for Airblast application (12)	0.13	4.3		2.00 lb ai per acre	40 Acres per day	0.062	2	0.0049	65	2.3
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.22	0.45		1.25 lb ai per acre	20 Acres per day	0.033	5	0.00016	2000	4.6
Sprays for Airblast application (16)	0.22	0.45		2.00 lb ai per acre	20 Acres per day	0.052	3	0.00026	1200	2.9
Sprays for Airblast application (17)	0.22	0.45		2.00 lb ai per acre	40 Acres per day	0.10	1	0.00051	620	1.4
Sprays for Airblast application (18)	0.22	0.45		1.25 lb ai per acre	40 Acres per day	0.066	2	0.00032	1000	2.3
Flagger										
Flagging for Sprays application (19)	0.01	0.035	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	0.042	4	0.00035	910	3.6
Flagging for Sprays application (20)	0.01	0.035		1.25 lb ai per acre	350 Acres per day	0.026	6	0.00022	1500	5.7

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table C7:Occupational Handler Short Term Risk From Azinphos-Methyl on Citrus Fruits at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOEc	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	0.054	10	0.00052	620	10.0
Mixing/Loading Liquids for Aerial application (2)	0.0086	0.083		2.00 lb ai per acre	350 Acres per day	0.086	7	0.00083	390	6.4
Wettable Powders for Aerial application (3)	0.0098	0.24		2.00 lb ai per acre	350 Acres per day	0.098	6	0.0024	130	5.5
Wettable Powders for Aerial application (4)	0.0098	0.24		1.25 lb ai per acre	350 Acres per day	0.061	9	0.0015	210	8.8
Mixing/Loading Liquids for Airblast application (5)	0.0086	0.083		1.25 lb ai per acre	20 Acres per day	0.0031	180	0.000030	11000	180.0
Mixing/Loading Liquids for Airblast application (6)	0.0086	0.083		2.00 lb ai per acre	20 Acres per day	0.0049	110	0.000047	6700	110.0
Wettable Powders for Airblast application (7)	0.0098	0.24		1.25 lb ai per acre	20 Acres per day	0.0035	160	0.000086	3700	150.0
Wettable Powders for Airblast application (8)	0.0098	0.24		2.00 lb ai per acre	20 Acres per day	0.0056	100	0.00014	2300	96.0
Mixing/Loading Liquids for Airblast application (9)	0.0086	0.083		1.25 lb ai per acre	40 Acres per day	0.0061	91	0.000059	5400	90.0
Mixing/Loading Liquids for Airblast application (10)	0.0086	0.083		2.00 lb ai per acre	40 Acres per day	0.0098	57	0.000095	3400	56.0
Wettable Powders for Airblast application (11)	0.0098	0.24		1.25 lb ai per acre	40 Acres per day	0.007	80	0.00017	1900	77.0
Wettable Powders for Airblast application (12)	0.0098	0.24		2.00 lb ai per acre	40 Acres per day	0.011	50	0.00027	1200	48.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	0.031	18	0.00043	750	18.0
Sprays for Aerial application (14)	0.005	0.068		2.00 lb ai per acre	350 Acres per day	0.05	11	0.00068	470	11.0
Sprays for Airblast application (15)	0.019	0.45		1.25 lb ai per acre	20 Acres per day	0.0068	83	0.00016	2000	79.0
Sprays for Airblast application (16)	0.019	0.45		2.00 lb ai per acre	20 Acres per day	0.011	52	0.00026	1200	50.0
Sprays for Airblast application (17)	0.019	0.45		2.00 lb ai per acre	40 Acres per day	0.022	26	0.00051	620	25.0
Sprays for Airblast application (18)	0.019	0.45		1.25 lb ai per acre	40 Acres per day	0.014	41	0.00032	1000	40.0
Flagger										
Flagging for Sprays application (19)	0.00022	0.007	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	0.0022	260	0.00007	4600	240.0
Flagging for Sprays application (20)	0.00022	0.007		1.25 lb ai per acre	350 Acres per day	0.0014	410	0.000044	7300	390.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table C8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Citrus Fruits at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	0.022	7	0.00052	620	6.6
Mixing/Loading Liquids for Aerial application (2)	0.0086	0.083		2.00 lb ai per acre	350 Acres per day	0.036	4	0.00083	390	4.1
Wettable Powders for Aerial application (3)	0.0098	0.24		2.00 lb ai per acre	350 Acres per day	0.041	4	0.0024	130	3.6
Wettable Powders for Aerial application (4)	0.0098	0.24		1.25 lb ai per acre	350 Acres per day	0.026	6	0.0015	210	5.7
Mixing/Loading Liquids for Airblast application (5)	0.0086	0.083		1.25 lb ai per acre	20 Acres per day	0.0013	120	0.000030	11000	120.0
Mixing/Loading Liquids for Airblast application (6)	0.0086	0.083		2.00 lb ai per acre	20 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Airblast application (7)	0.0098	0.24		1.25 lb ai per acre	20 Acres per day	0.0015	100	0.000086	3700	100
Wettable Powders for Airblast application (8)	0.0098	0.24		2.00 lb ai per acre	20 Acres per day	0.0023	64	0.00014	2300	63.0
Mixing/Loading Liquids for Airblast application (9)	0.0086	0.083		1.25 lb ai per acre	40 Acres per day	0.0026	59	0.000059	5400	58.0
Mixing/Loading Liquids for Airblast application (10)	0.0086	0.083		2.00 lb ai per acre	40 Acres per day	0.0041	37	0.000095	3400	36.0
Wettable Powders for Airblast application (11)	0.0098	0.24		1.25 lb ai per acre	40 Acres per day	0.0029	51	0.00017	1900	50.0
Wettable Powders for Airblast application (12)	0.0098	0.24		2.00 lb ai per acre	40 Acres per day	0.0047	32	0.00027	1200	31.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	1.25 lb ai per acre	350 Acres per day	0.013	12	0.00043	750	11.0
Sprays for Aerial application (14)	0.005	0.068		2.00 lb ai per acre	350 Acres per day	0.021	7	0.00068	470	7.1
Sprays for Airblast application (15)	0.019	0.45		1.25 lb ai per acre	20 Acres per day	0.0028	53	0.00016	2000	52.0
Sprays for Airblast application (16)	0.019	0.45		2.00 lb ai per acre	20 Acres per day	0.0045	33	0.00026	1200	32.0
Sprays for Airblast application (17)	0.019	0.45		2.00 lb ai per acre	40 Acres per day	0.0091	17	0.00051	620	16.0
Sprays for Airblast application (18)	0.019	0.45		1.25 lb ai per acre	40 Acres per day	0.0057	27	0.00032	1000	26.0
Flagger										
Flagging for Sprays application (19)	0.00022	0.007	Citrus Fruits (Grapefruit, Lemon, Lime, Orange, Tangerine, Kumquat, Tangelo)	2.00 lb ai per acre	350 Acres per day	0.00092	160	0.00007	4600	160.0
Flagging for Sprays application (20)	0.00022	0.007		1.25 lb ai per acre	350 Acres per day	0.00057	260	0.000044	7300	250.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table D1:Occupational Handler Short Term Risk From Azinphos-Methyl on Pome Fruits at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	15.0	< 1	0.006	53	0.039
Mixing/Loading Liquids for Aerial application (2)	2.9	1.2		1.50 lb ai per acre	350 Acres per day	22.0	< 1	0.009	36	0.026
Wettable Powders for Aerial application (3)	3.7	43		1.50 lb ai per acre	350 Acres per day	28.0	< 1	0.32	1	0.020
Wettable Powders for Aerial application (4)	3.7	43		1.00 lb ai per acre	350 Acres per day	19.0	< 1	0.22	1	0.030
Mixing/Loading Liquids for Airblast application (5)	2.9	1.2		1.00 lb ai per acre	20 Acres per day	0.83	1	0.00034	930	0.68
Mixing/Loading Liquids for Airblast application (6)	2.9	1.2		1.00 lb ai per acre	40 Acres per day	1.7	< 1	0.00069	470	0.34
Mixing/Loading Liquids for Airblast application (7)	2.9	1.2		1.50 lb ai per acre	20 Acres per day	1.2	< 1	0.00051	620	0.45
Mixing/Loading Liquids for Airblast application (8)	2.9	1.2		1.50 lb ai per acre	40 Acres per day	2.5	< 1	0.0010	310	0.23
Wettable Powders for Airblast application (9)	3.7	43		1.00 lb ai per acre	20 Acres per day	1.1	1	0.012	26	0.52
Wettable Powders for Airblast application (10)	3.7	43		1.50 lb ai per acre	20 Acres per day	1.6	< 1	0.018	17	0.35
Wettable Powders for Airblast application (11)	3.7	43		1.00 lb ai per acre	40 Acres per day	2.1	< 1	0.025	13	0.26
Wettable Powders for Airblast application (12)	3.7	43		1.50 lb ai per acre	40 Acres per day	3.2	< 1	0.037	9	0.17
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.36	4.5		1.00 lb ai per acre	20 Acres per day	0.10	5	0.0013	250	5.3
Sprays for Airblast application (16)	0.36	4.5		1.00 lb ai per acre	40 Acres per day	0.21	3	0.0026	120	2.7
Sprays for Airblast application (17)	0.36	4.5		1.50 lb ai per acre	20 Acres per day	0.15	4	0.0019	170	3.6
Sprays for Airblast application (18)	0.36	4.5		1.50 lb ai per acre	40 Acres per day	0.31	2	0.0039	83	1.8
Flagger										
Flagging for Sprays application (19)	0.011	0.35	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.055	10	0.0018	180	9.6
Flagging for Sprays application (20)	0.011	0.35		1.50 lb ai per acre	350 Acres per day	0.083	7	0.0026	120	6.4

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table D2:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Pome Fruits at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	6.0	< 1	0.006	53	0.025
Mixing/Loading Liquids for Aerial application (2)	2.9	1.2		1.50 lb ai per acre	350 Acres per day	9.1	< 1	0.009	36	0.017
Wettable Powders for Aerial application (3)	3.7	43		1.50 lb ai per acre	350 Acres per day	12.0	< 1	0.32	1	0.013
Wettable Powders for Aerial application (4)	3.7	43		1.00 lb ai per acre	350 Acres per day	7.7	< 1	0.22	1	0.019
Mixing/Loading Liquids for Airblast application (5)	2.9	1.2		1.00 lb ai per acre	20 Acres per day	0.35	< 1	0.00034	930	0.43
Mixing/Loading Liquids for Airblast application (6)	2.9	1.2		1.00 lb ai per acre	40 Acres per day	0.69	< 1	0.00069	470	0.22
Mixing/Loading Liquids for Airblast application (7)	2.9	1.2		1.50 lb ai per acre	20 Acres per day	0.52	< 1	0.00051	620	0.29
Mixing/Loading Liquids for Airblast application (8)	2.9	1.2		1.50 lb ai per acre	40 Acres per day	1.0	< 1	0.0010	310	0.14
Wettable Powders for Airblast application (9)	3.7	43		1.00 lb ai per acre	20 Acres per day	0.44	< 1	0.012	26	0.34
Wettable Powders for Airblast application (10)	3.7	43		1.50 lb ai per acre	20 Acres per day	0.66	< 1	0.018	17	0.22
Wettable Powders for Airblast application (11)	3.7	43		1.00 lb ai per acre	40 Acres per day	0.88	< 1	0.025	13	0.17
Wettable Powders for Airblast application (12)	3.7	43		1.50 lb ai per acre	40 Acres per day	1.3	< 1	0.037	9	0.11
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.36	4.5		1.00 lb ai per acre	20 Acres per day	0.043	3	0.0013	250	3.4
Sprays for Airblast application (16)	0.36	4.5		1.00 lb ai per acre	40 Acres per day	0.086	2	0.0026	120	1.7
Sprays for Airblast application (17)	0.36	4.5		1.50 lb ai per acre	20 Acres per day	0.064	2	0.0019	170	2.3
Sprays for Airblast application (18)	0.36	4.5		1.50 lb ai per acre	40 Acres per day	0.13	1	0.0039	83	1.1
Flagger										
Flagging for Sprays application (19)	0.011	0.35	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.023	7	0.0018	180	6.3
Flagging for Sprays application (20)	0.011	0.35		1.50 lb ai per acre	350 Acres per day	0.034	4	0.0026	120	4.2

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table D3:Occupational Handler Short Term Risk From Azinphos-Methyl on Pome Fruits at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[d]	Total MOE[e]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.12	5	0.0012	270	4.8
Mixing/Loading Liquids for Aerial application (2)	0.023	0.24		1.50 lb ai per acre	350 Acres per day	0.17	3	0.0018	180	3.2
Wettable Powders for Aerial application (3)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	1.3	< 1	0.065	5	0.40
Wettable Powders for Aerial application (4)	0.17	8.6		1.00 lb ai per acre	350 Acres per day	0.85	1	0.043	7	0.61
Mixing/Loading Liquids for Airblast application (5)	0.023	0.24		1.00 lb ai per acre	20 Acres per day	0.0066	85	0.000069	4700	84.0
Mixing/Loading Liquids for Airblast application (6)	0.023	0.24		1.00 lb ai per acre	40 Acres per day	0.013	43	0.00014	2300	42.0
Mixing/Loading Liquids for Airblast application (7)	0.023	0.24		1.50 lb ai per acre	20 Acres per day	0.0099	57	0.00010	3100	56.0
Mixing/Loading Liquids for Airblast application (8)	0.023	0.24		1.50 lb ai per acre	40 Acres per day	0.020	28	0.00021	1600	28.0
Wettable Powders for Airblast application (9)	0.17	8.6		1.00 lb ai per acre	20 Acres per day	0.049	12	0.0025	130	11.0
Wettable Powders for Airblast application (10)	0.17	8.6		1.50 lb ai per acre	20 Acres per day	0.073	8	0.0037	87	7.1
Wettable Powders for Airblast application (11)	0.17	8.6		1.00 lb ai per acre	40 Acres per day	0.097	6	0.0049	65	5.3
Wettable Powders for Airblast application (12)	0.17	8.6		1.50 lb ai per acre	40 Acres per day	0.15	4	0.0074	43	3.5
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.24	0.9		1.00 lb ai per acre	20 Acres per day	0.069	8	0.00026	1200	8.1
Sprays for Airblast application (16)	0.24	0.9		1.00 lb ai per acre	40 Acres per day	0.14	4	0.00051	620	4.1
Sprays for Airblast application (17)	0.24	0.9		1.50 lb ai per acre	20 Acres per day	0.10	5	0.00039	830	5.4
Sprays for Airblast application (18)	0.24	0.9		1.50 lb ai per acre	40 Acres per day	0.21	3	0.00077	420	2.7
Flagger										
Flagging for Sprays application (19)	0.01	0.07	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.05	11	0.00035	910	11.0
Flagging for Sprays application (20)	0.01	0.07		1.50 lb ai per acre	350 Acres per day	0.075	7	0.00053	610	7.4

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table D4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Pome Fruits at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[d]	Total MOE[e]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.048	3	0.0012	270	3.1
Mixing/Loading Liquids for Aerial application (2)	0.023	0.24		1.50 lb ai per acre	350 Acres per day	0.072	2	0.0018	180	2.1
Wettable Powders for Aerial application (3)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	0.53	< 1	0.065	5	0.27
Wettable Powders for Aerial application (4)	0.17	8.6		1.00 lb ai per acre	350 Acres per day	0.35	< 1	0.043	7	0.40
Mixing/Loading Liquids for Airblast application (5)	0.023	0.24		1.00 lb ai per acre	20 Acres per day	0.0027	55	0.000069	4700	54.0
Mixing/Loading Liquids for Airblast application (6)	0.023	0.24		1.00 lb ai per acre	40 Acres per day	0.0055	27	0.00014	2300	27.0
Mixing/Loading Liquids for Airblast application (7)	0.023	0.24		1.50 lb ai per acre	20 Acres per day	0.0041	36	0.00010	3100	36.0
Mixing/Loading Liquids for Airblast application (8)	0.023	0.24		1.50 lb ai per acre	40 Acres per day	0.0082	18	0.00021	1600	18.0
Wettable Powders for Airblast application (9)	0.17	8.6		1.00 lb ai per acre	20 Acres per day	0.020	7	0.0025	130	7.0
Wettable Powders for Airblast application (10)	0.17	8.6		1.50 lb ai per acre	20 Acres per day	0.030	5	0.0037	87	4.7
Wettable Powders for Airblast application (11)	0.17	8.6		1.00 lb ai per acre	40 Acres per day	0.041	4	0.0049	65	3.5
Wettable Powders for Airblast application (12)	0.17	8.6		1.50 lb ai per acre	40 Acres per day	0.061	2	0.0074	43	2.3
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.24	0.9		1.00 lb ai per acre	20 Acres per day	0.029	5	0.00026	1200	5.2
Sprays for Airblast application (16)	0.24	0.9		1.00 lb ai per acre	40 Acres per day	0.057	3	0.00051	620	2.6
Sprays for Airblast application (17)	0.24	0.9		1.50 lb ai per acre	20 Acres per day	0.043	3	0.00039	830	3.5
Sprays for Airblast application (18)	0.24	0.9		1.50 lb ai per acre	40 Acres per day	0.086	2	0.00077	420	1.7
Flagger										
Flagging for Sprays application (19)	0.01	0.07	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.021	7	0.00035	910	7.1
Flagging for Sprays application (20)	0.01	0.07		1.50 lb ai per acre	350 Acres per day	0.031	5	0.00053	610	4.8

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table D5:Occupational Handler Short Term Risk From Azinphos-Methyl on Pome Fruits at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.085	7	0.0006	530	6.5
Mixing/Loading Liquids for Aerial application (2)	0.017	0.12		1.50 lb ai per acre	350 Acres per day	0.13	4	0.0009	360	4.3
Wettable Powders for Aerial application (3)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.98	1	0.032	10	0.54
Wettable Powders for Aerial application (4)	0.13	4.3		1.00 lb ai per acre	350 Acres per day	0.65	1	0.022	15	0.81
Mixing/Loading Liquids for Airblast application (5)	0.017	0.12		1.00 lb ai per acre	20 Acres per day	0.0049	120	0.000034	9300	110.0
Mixing/Loading Liquids for Airblast application (6)	0.017	0.12		1.00 lb ai per acre	40 Acres per day	0.0097	58	0.000069	4700	57.0
Mixing/Loading Liquids for Airblast application (7)	0.017	0.12		1.50 lb ai per acre	20 Acres per day	0.0073	77	0.000051	6200	76.0
Mixing/Loading Liquids for Airblast application (8)	0.017	0.12		1.50 lb ai per acre	40 Acres per day	0.015	38	0.00010	3100	38.0
Wettable Powders for Airblast application (9)	0.13	4.3		1.00 lb ai per acre	20 Acres per day	0.037	15	0.0012	260	14.0
Wettable Powders for Airblast application (10)	0.13	4.3		1.50 lb ai per acre	20 Acres per day	0.056	10	0.0018	170	9.5
Wettable Powders for Airblast application (11)	0.13	4.3		1.00 lb ai per acre	40 Acres per day	0.074	8	0.0025	130	7.1
Wettable Powders for Airblast application (12)	0.13	4.3		1.50 lb ai per acre	40 Acres per day	0.11	5	0.0037	87	4.8
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.22	0.45		1.00 lb ai per acre	20 Acres per day	0.063	9	0.00013	2500	8.9
Sprays for Airblast application (16)	0.22	0.45		1.00 lb ai per acre	40 Acres per day	0.13	4	0.00026	1200	4.4
Sprays for Airblast application (17)	0.22	0.45		1.50 lb ai per acre	20 Acres per day	0.094	6	0.00019	1700	5.9
Sprays for Airblast application (18)	0.22	0.45		1.50 lb ai per acre	40 Acres per day	0.19	3	0.00039	830	3.0
Flagger										
Flagging for Sprays application (19)	0.01	0.035	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.05	11	0.00018	1800	11.0
Flagging for Sprays application (20)	0.01	0.035		1.50 lb ai per acre	350 Acres per day	0.075	7	0.00026	1200	7.4

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table D6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Pome Fruits at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.035	4	0.0006	530	4.2
Mixing/Loading Liquids for Aerial application (2)	0.017	0.12		1.50 lb ai per acre	350 Acres per day	0.053	3	0.0009	360	2.8
Wettable Powders for Aerial application (3)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.41	< 1	0.032	10	0.36
Wettable Powders for Aerial application (4)	0.13	4.3		1.00 lb ai per acre	350 Acres per day	0.27	1	0.022	15	0.53
Mixing/Loading Liquids for Airblast application (5)	0.017	0.12		1.00 lb ai per acre	20 Acres per day	0.0020	74	0.000034	9300	73.0
Mixing/Loading Liquids for Airblast application (6)	0.017	0.12		1.00 lb ai per acre	40 Acres per day	0.0041	37	0.000069	4700	37.0
Mixing/Loading Liquids for Airblast application (7)	0.017	0.12		1.50 lb ai per acre	20 Acres per day	0.0030	49	0.000051	6200	49.0
Mixing/Loading Liquids for Airblast application (8)	0.017	0.12		1.50 lb ai per acre	40 Acres per day	0.0061	25	0.00010	3100	24.0
Wettable Powders for Airblast application (9)	0.13	4.3		1.00 lb ai per acre	20 Acres per day	0.015	10	0.0012	260	9.3
Wettable Powders for Airblast application (10)	0.13	4.3		1.50 lb ai per acre	20 Acres per day	0.023	6	0.0018	170	6.2
Wettable Powders for Airblast application (11)	0.13	4.3		1.00 lb ai per acre	40 Acres per day	0.031	5	0.0025	130	4.7
Wettable Powders for Airblast application (12)	0.13	4.3		1.50 lb ai per acre	40 Acres per day	0.046	3	0.0037	87	3.1
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.22	0.45		1.00 lb ai per acre	20 Acres per day	0.026	6	0.00013	2500	5.7
Sprays for Airblast application (16)	0.22	0.45		1.00 lb ai per acre	40 Acres per day	0.052	3	0.00026	1200	2.9
Sprays for Airblast application (17)	0.22	0.45		1.50 lb ai per acre	20 Acres per day	0.039	4	0.00019	1700	3.8
Sprays for Airblast application (18)	0.22	0.45		1.50 lb ai per acre	40 Acres per day	0.079	2	0.00039	830	1.9
Flagger										
Flagging for Sprays application (19)	0.01	0.035	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.021	7	0.00018	1800	7.2
Flagging for Sprays application (20)	0.01	0.035		1.50 lb ai per acre	350 Acres per day	0.031	5	0.00026	1200	4.8

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%.
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table D7:Occupational Handler Short Term Risk From Azinphos-Methyl on Pome Fruits at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.043	13	0.00042	770	13.0
Mixing/Loading Liquids for Aerial application (2)	0.0086	0.083		1.50 lb ai per acre	350 Acres per day	0.065	9	0.00062	510	8.5
Wettable Powders for Aerial application (3)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.074	8	0.0018	180	7.3
Wettable Powders for Aerial application (4)	0.0098	0.24		1.00 lb ai per acre	350 Acres per day	0.049	11	0.0012	270	11.0
Mixing/Loading Liquids for Airblast application (5)	0.0086	0.083		1.00 lb ai per acre	20 Acres per day	0.0025	230	0.000024	13000	220.0
Mixing/Loading Liquids for Airblast application (6)	0.0086	0.083		1.00 lb ai per acre	40 Acres per day	0.0049	110	0.000047	6700	110.0
Mixing/Loading Liquids for Airblast application (7)	0.0086	0.083		1.50 lb ai per acre	20 Acres per day	0.0037	150	0.000036	9000	150.0
Mixing/Loading Liquids for Airblast application (8)	0.0086	0.083		1.50 lb ai per acre	40 Acres per day	0.0074	76	0.000071	4500	75.0
Wettable Powders for Airblast application (9)	0.0098	0.24		1.00 lb ai per acre	20 Acres per day	0.0028	200	0.000069	4700	190.0
Wettable Powders for Airblast application (10)	0.0098	0.24		1.50 lb ai per acre	20 Acres per day	0.0042	130	0.00010	3100	130.0
Wettable Powders for Airblast application (11)	0.0098	0.24		1.00 lb ai per acre	40 Acres per day	0.0056	100	0.00014	2300	96.0
Wettable Powders for Airblast application (12)	0.0098	0.24		1.50 lb ai per acre	40 Acres per day	0.0084	67	0.00021	1600	64.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.025	22	0.00034	940	22.0
Sprays for Aerial application (14)	0.005	0.068		1.50 lb ai per acre	350 Acres per day	0.038	15	0.00051	630	15.0
Sprays for Airblast application (15)	0.019	0.45		1.00 lb ai per acre	20 Acres per day	0.0054	100	0.00013	2500	99.0
Sprays for Airblast application (16)	0.019	0.45		1.00 lb ai per acre	40 Acres per day	0.011	52	0.00026	1200	50.0
Sprays for Airblast application (17)	0.019	0.45		1.50 lb ai per acre	20 Acres per day	0.0081	69	0.00019	1700	66.0
Sprays for Airblast application (18)	0.019	0.45		1.50 lb ai per acre	40 Acres per day	0.016	34	0.00039	830	33.0
Flagger										
Flagging for Sprays application (19)	0.00022	0.007	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.0011	510	0.000035	9100	480.0
Flagging for Sprays application (20)	0.00022	0.007		1.50 lb ai per acre	350 Acres per day	0.0017	340	0.000053	6100	320.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table D8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Pome Fruits at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.018	8	0.00042	770	8.3
Mixing/Loading Liquids for Aerial application (2)	0.0086	0.083		1.50 lb ai per acre	350 Acres per day	0.027	6	0.00062	510	5.5
Wettable Powders for Aerial application (3)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.031	5	0.0018	180	4.8
Wettable Powders for Aerial application (4)	0.0098	0.24		1.00 lb ai per acre	350 Acres per day	0.020	7	0.0012	270	7.1
Mixing/Loading Liquids for Airblast application (5)	0.0086	0.083		1.00 lb ai per acre	20 Acres per day	0.0010	150	0.000024	13000	140.0
Mixing/Loading Liquids for Airblast application (6)	0.0086	0.083		1.00 lb ai per acre	40 Acres per day	0.0020	73	0.000047	6700	72.0
Mixing/Loading Liquids for Airblast application (7)	0.0086	0.083		1.50 lb ai per acre	20 Acres per day	0.0015	98	0.000036	9000	97.0
Mixing/Loading Liquids for Airblast application (8)	0.0086	0.083		1.50 lb ai per acre	40 Acres per day	0.0031	49	0.000071	4500	48.0
Wettable Powders for Airblast application (9)	0.0098	0.24		1.00 lb ai per acre	20 Acres per day	0.0012	130	0.000069	4700	130.0
Wettable Powders for Airblast application (10)	0.0098	0.24		1.50 lb ai per acre	20 Acres per day	0.0018	86	0.00010	3100	83.0
Wettable Powders for Airblast application (11)	0.0098	0.24		1.00 lb ai per acre	40 Acres per day	0.0023	64	0.00014	2300	63.0
Wettable Powders for Airblast application (12)	0.0098	0.24		1.50 lb ai per acre	40 Acres per day	0.0035	43	0.00021	1600	42.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.010	14	0.00034	940	14.0
Sprays for Aerial application (14)	0.005	0.068		1.50 lb ai per acre	350 Acres per day	0.016	10	0.00051	630	9.4
Sprays for Airblast application (15)	0.019	0.45		1.00 lb ai per acre	20 Acres per day	0.0023	66	0.00013	2500	65.0
Sprays for Airblast application (16)	0.019	0.45		1.00 lb ai per acre	40 Acres per day	0.0045	33	0.00026	1200	32.0
Sprays for Airblast application (17)	0.019	0.45		1.50 lb ai per acre	20 Acres per day	0.0034	44	0.00019	1700	43.0
Sprays for Airblast application (18)	0.019	0.45		1.50 lb ai per acre	40 Acres per day	0.0068	22	0.00039	830	22.0
Flagger										
Flagging for Sprays application (19)	0.00022	0.007	Pome Fruits (Apple, Pear, Crabapple, Quince)	1.00 lb ai per acre	350 Acres per day	0.00046	330	0.000035	9100	320.0
Flagging for Sprays application (20)	0.00022	0.007		1.50 lb ai per acre	350 Acres per day	0.00069	220	0.000053	6100	210.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table E1:Occupational Handler Short Term Risk From Azinphos-Methyl on Stone Fruits at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	16.0	< 1	0.0068	47	0.034
Wettable Powders for Aerial application (2)	3.7	43		1.13 lb ai per acre	350 Acres per day	21.0	< 1	0.24	1	0.026
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		1.50 lb ai per acre	350 Acres per day	22.0	< 1	0.009	36	0.026
Wettable Powders for Aerial application (4)	3.7	43		1.50 lb ai per acre	350 Acres per day	28.0	< 1	0.32	1	0.020
Mixing/Loading Liquids for Aerial application (5)	2.9	1.2		2.00 lb ai per acre	350 Acres per day	29	< 1	0.012	27	0.019
Wettable Powders for Aerial application (6)	3.7	43		2.00 lb ai per acre	350 Acres per day	37	< 1	0.43	1	0.015
Mixing/Loading Liquids for Aerial application (7)	2.9	1.2	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Aerial application (8)	3.7	43	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Airblast application (9)	2.9	1.2	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.73	1	0.0003	1100	0.77
Mixing/Loading Liquids for Airblast application (10)	2.9	1.2		0.88 lb ai per acre	40 Acres per day	1.5	< 1	0.0006	530	0.39
Wettable Powders for Airblast application (11)	3.7	43		0.88 lb ai per acre	20 Acres per day	0.93	1	0.011	30	0.59
Wettable Powders for Airblast application (12)	3.7	43		0.88 lb ai per acre	40 Acres per day	1.9	< 1	0.022	15	0.30
Mixing/Loading Liquids for Airblast application (13)	2.9	1.2		1.13 lb ai per acre	20 Acres per day	0.93	1	0.00039	830	0.60
Mixing/Loading Liquids for Airblast application (14)	2.9	1.2		1.13 lb ai per acre	40 Acres per day	1.9	< 1	0.00077	420	0.30
Wettable Powders for Airblast application (15)	3.7	43		1.13 lb ai per acre	20 Acres per day	1.2	< 1	0.014	23	0.46
Wettable Powders for Airblast application (16)	3.7	43		1.13 lb ai per acre	40 Acres per day	2.4	< 1	0.028	12	0.23
Mixing/Loading Liquids for Airblast application (17)	2.9	1.2		1.50 lb ai per acre	20 Acres per day	1.2	< 1	0.00051	620	0.45
Mixing/Loading Liquids for Airblast application (18)	2.9	1.2		1.50 lb ai per acre	40 Acres per day	2.5	< 1	0.0010	310	0.23
Mixing/Loading Liquids for Airblast application (19)	2.9	1.2		1.50 lb ai per acre	20 Acres per day	1.2	< 1	0.00051	620	0.45
Mixing/Loading Liquids for Airblast application (20)	2.9	1.2		1.50 lb ai per acre	40 Acres per day	2.5	< 1	0.0010	310	0.23
Wettable Powders for Airblast application (21)	3.7	43		1.50 lb ai per acre	20 Acres per day	1.6	< 1	0.018	17	0.35
Wettable Powders for Airblast application (22)	3.7	43		1.50 lb ai per acre	40 Acres per day	3.2	< 1	0.037	9	0.17
Mixing/Loading Liquids for Airblast application (23)	2.9	1.2		2.00 lb ai per acre	20 Acres per day	1.7	< 1	0.00069	470	0.34
Mixing/Loading Liquids for Airblast application (24)	2.9	1.2		2.00 lb ai per acre	40 Acres per day	3.3	< 1	0.0014	230	0.17
Wettable Powders for Airblast application (25)	3.7	43		2.00 lb ai per acre	20 Acres per day	2.1	< 1	0.025	13	0.26
Wettable Powders for Airblast application (26)	3.7	43		2.00 lb ai per acre	40 Acres per day	4.2	< 1	0.049	7	0.13
Mixing/Loading Liquids for Aerial application (27)	2.9	1.2	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	13.0	< 1	0.0053	61	0.044
Wettable Powders for Aerial application (28)	3.7	43		0.88 lb ai per acre	350 Acres per day	16.0	< 1	0.19	2	0.034

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Applicator										
Sprays for Aerial application (29)	No Data	No Data	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (30)	No Data	No Data		1.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (31)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (34)	0.36	4.5	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.09	6	0.0011	280	6.1
Sprays for Airblast application (35)	0.36	4.5		0.88 lb ai per acre	40 Acres per day	0.18	3	0.0023	140	3.0
Sprays for Airblast application (36)	0.36	4.5		1.13 lb ai per acre	20 Acres per day	0.12	5	0.0014	220	4.7
Sprays for Airblast application (37)	0.36	4.5		1.13 lb ai per acre	40 Acres per day	0.23	2	0.0029	110	2.4
Sprays for Airblast application (38)	0.36	4.5		1.50 lb ai per acre	20 Acres per day	0.15	4	0.0019	170	3.6
Sprays for Airblast application (39)	0.36	4.5		1.50 lb ai per acre	40 Acres per day	0.31	2	0.0039	83	1.8
Sprays for Airblast application (40)	0.36	4.5		2.00 lb ai per acre	20 Acres per day	0.21	3	0.0026	120	2.7
Sprays for Airblast application (41)	0.36	4.5		2.00 lb ai per acre	40 Acres per day	0.41	1	0.0051	62	1.3
Flagger										
Flagging for Sprays application (42)	0.011	0.35	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.048	12	0.0015	210	11.0
Flagging for Sprays application (43)	0.011	0.35		1.13 lb ai per acre	350 Acres per day	0.062	9	0.0020	160	8.6
Flagging for Sprays application (44)	0.011	0.35		1.50 lb ai per acre	350 Acres per day	0.083	7	0.0026	120	6.4
Flagging for Sprays application (45)	0.011	0.35		2.00 lb ai per acre	350 Acres per day	0.11	5	0.0035	91	4.8
Flagging for Sprays application (46)	0.011	0.35	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.041	14	0.0013	240	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table E2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Stone Fruits at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	6.8	< 1	0.0068	47	0.022
Wettable Powders for Aerial application (2)	3.7	43		1.13 lb ai per acre	350 Acres per day	8.7	< 1	0.24	1	0.017
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		1.50 lb ai per acre	350 Acres per day	9.1	< 1	0.009	36	0.017
Wettable Powders for Aerial application (4)	3.7	43		1.50 lb ai per acre	350 Acres per day	12.0	< 1	0.32	1	0.013
Mixing/Loading Liquids for Aerial application (5)	2.9	1.2		2.00 lb ai per acre	350 Acres per day	12.0	< 1	0.012	27	0.012
Wettable Powders for Aerial application (6)	3.7	43		2.00 lb ai per acre	350 Acres per day	15.0	< 1	0.43	1	0.0096
Mixing/Loading Liquids for Aerial application (7)	2.9	1.2	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Aerial application (8)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Airblast application (9)	2.9	1.2	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.30	< 1	0.0003	1100	0.50
Mixing/Loading Liquids for Airblast application (10)	2.9	1.2		0.88 lb ai per acre	40 Acres per day	0.60	< 1	0.0006	530	0.25
Wettable Powders for Airblast application (11)	3.7	43		0.88 lb ai per acre	20 Acres per day	0.39	< 1	0.011	30	0.38
Wettable Powders for Airblast application (12)	3.7	43		0.88 lb ai per acre	40 Acres per day	0.77	< 1	0.022	15	0.19
Mixing/Loading Liquids for Airblast application (13)	2.9	1.2		1.13 lb ai per acre	20 Acres per day	0.39	< 1	0.00039	830	0.39
Mixing/Loading Liquids for Airblast application (14)	2.9	1.2		1.13 lb ai per acre	40 Acres per day	0.78	< 1	0.00077	420	0.19
Wettable Powders for Airblast application (15)	3.7	43		1.13 lb ai per acre	20 Acres per day	0.50	< 1	0.014	23	0.30
Wettable Powders for Airblast application (16)	3.7	43		1.13 lb ai per acre	40 Acres per day	0.99	< 1	0.028	12	0.15
Mixing/Loading Liquids for Airblast application (17)	2.9	1.2		1.50 lb ai per acre	20 Acres per day	0.52	< 1	0.00051	620	0.29
Mixing/Loading Liquids for Airblast application (18)	2.9	1.2		1.50 lb ai per acre	40 Acres per day	1.0	< 1	0.0010	310	0.14
Mixing/Loading Liquids for Airblast application (19)	2.9	1.2	Stone Fruits (Nectarine, Peach, Plum, Prune)	1.50 lb ai per acre	20 Acres per day	0.52	< 1	0.00051	620	0.29
Mixing/Loading Liquids for Airblast application (20)	2.9	1.2		1.50 lb ai per acre	40 Acres per day	1.0	< 1	0.0010	310	0.14
Wettable Powders for Airblast application (21)	3.7	43		1.50 lb ai per acre	20 Acres per day	0.66	< 1	0.018	17	0.22
Wettable Powders for Airblast application (22)	3.7	43		1.50 lb ai per acre	40 Acres per day	1.3	< 1	0.037	9	0.11
Mixing/Loading Liquids for Airblast application (23)	2.9	1.2		2.00 lb ai per acre	20 Acres per day	0.69	< 1	0.00069	470	0.22
Mixing/Loading Liquids for Airblast application (24)	2.9	1.2		2.00 lb ai per acre	40 Acres per day	1.4	< 1	0.0014	230	0.11

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Airblast application (25)	3.7	43		2.00 lb ai per acre	20 Acres per day	0.88	< 1	0.025	13	0.17
Wettable Powders for Airblast application (26)	3.7	43		2.00 lb ai per acre	40 Acres per day	1.8	< 1	0.049	7	0.084
Mixing/Loading Liquids for Aerial application (27)	2.9	1.2	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	5.3	< 1	0.0053	61	0.028
Wettable Powders for Aerial application (28)	3.7	43		0.88 lb ai per acre	350 Acres per day	6.8	< 1	0.19	2	0.022
Applicator										
Sprays for Aerial application (29)	No Data	No Data	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (30)	No Data	No Data		1.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (31)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (34)	0.36	4.5	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.038	4	0.0011	280	3.9
Sprays for Airblast application (35)	0.36	4.5		0.88 lb ai per acre	40 Acres per day	0.075	2	0.0023	140	2.0
Sprays for Airblast application (36)	0.36	4.5		1.13 lb ai per acre	20 Acres per day	0.048	3	0.0014	220	3.1
Sprays for Airblast application (37)	0.36	4.5		1.13 lb ai per acre	40 Acres per day	0.097	2	0.0029	110	1.5
Sprays for Airblast application (38)	0.36	4.5		1.50 lb ai per acre	20 Acres per day	0.064	2	0.0019	170	2.3
Sprays for Airblast application (39)	0.36	4.5		1.50 lb ai per acre	40 Acres per day	0.13	1	0.0039	83	1.1
Sprays for Airblast application (40)	0.36	4.5		2.00 lb ai per acre	20 Acres per day	0.086	2	0.0026	120	1.7
Sprays for Airblast application (41)	0.36	4.5		2.00 lb ai per acre	40 Acres per day	0.17	1	0.0051	62	0.86
Flagger										
Flagging for Sprays application (42)	0.011	0.35	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.020	7	0.0015	210	7.2
Flagging for Sprays application (43)	0.011	0.35		1.13 lb ai per acre	350 Acres per day	0.026	6	0.0020	160	5.6
Flagging for Sprays application (44)	0.011	0.35		1.50 lb ai per acre	350 Acres per day	0.034	4	0.0026	120	4.2
Flagging for Sprays application (45)	0.011	0.35		2.00 lb ai per acre	350 Acres per day	0.046	3	0.0035	91	3.2
Flagging for Sprays application (46)	0.011	0.35	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.017	9	0.0013	240	8.4

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table E3:Occupational Handler Short Term Risk From Azinphos-Methyl on Stone Fruits at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	0.13	4	0.0014	240	4.3
Wettable Powders for Aerial application (2)	0.17	8.6		1.13 lb ai per acre	350 Acres per day	0.96	1	0.048	7	0.54
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		1.50 lb ai per acre	350 Acres per day	0.17	3	0.0018	180	3.2
Wettable Powders for Aerial application (4)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	1.3	< 1	0.065	5	0.40
Mixing/Loading Liquids for Aerial application (5)	0.023	0.24		2.00 lb ai per acre	350 Acres per day	0.23	2	0.0024	130	2.4
Wettable Powders for Aerial application (6)	0.17	8.6		2.00 lb ai per acre	350 Acres per day	1.7	< 1	0.086	4	0.30
Mixing/Loading Liquids for Aerial application (7)	0.023	0.24	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Aerial application (8)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Airblast application (9)	0.023	0.24	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.0058	97	0.00006	5300	96.0
Mixing/Loading Liquids for Airblast application (10)	0.023	0.24		0.88 lb ai per acre	40 Acres per day	0.012	49	0.00012	2700	48.0
Wettable Powders for Airblast application (11)	0.17	8.6		0.88 lb ai per acre	20 Acres per day	0.043	13	0.0022	150	12.0
Wettable Powders for Airblast application (12)	0.17	8.6		0.88 lb ai per acre	40 Acres per day	0.085	7	0.0043	74	6.1
Mixing/Loading Liquids for Airblast application (13)	0.023	0.24		1.13 lb ai per acre	20 Acres per day	0.0074	76	0.000077	4100	74.0
Mixing/Loading Liquids for Airblast application (14)	0.023	0.24		1.13 lb ai per acre	40 Acres per day	0.015	38	0.00015	2100	37.0
Wettable Powders for Airblast application (15)	0.17	8.6		1.13 lb ai per acre	20 Acres per day	0.055	10	0.0028	120	9.4
Wettable Powders for Airblast application (16)	0.17	8.6		1.13 lb ai per acre	40 Acres per day	0.11	5	0.0055	58	4.7
Mixing/Loading Liquids for Airblast application (17)	0.023	0.24		1.50 lb ai per acre	20 Acres per day	0.0099	57	0.00010	3100	56.0
Mixing/Loading Liquids for Airblast application (18)	0.023	0.24		1.50 lb ai per acre	40 Acres per day	0.020	28	0.00021	1600	28.0
Mixing/Loading Liquids for Airblast application (19)	0.023	0.24		1.50 lb ai per acre	20 Acres per day	0.0099	57	0.00010	3100	56.0
Mixing/Loading Liquids for Airblast application (20)	0.023	0.24		1.50 lb ai per acre	40 Acres per day	0.020	28	0.00021	1600	28.0
Wettable Powders for Airblast application (21)	0.17	8.6		1.50 lb ai per acre	20 Acres per day	0.073	8	0.0037	87	7.1
Wettable Powders for Airblast application (22)	0.17	8.6		1.50 lb ai per acre	40 Acres per day	0.15	4	0.0074	43	3.5
Mixing/Loading Liquids for Airblast application (23)	0.023	0.24		2.00 lb ai per acre	20 Acres per day	0.013	43	0.00014	2300	42.0
Mixing/Loading Liquids for Airblast application (24)	0.023	0.24		2.00 lb ai per acre	40 Acres per day	0.026	21	0.00027	1200	21.0
Wettable Powders for Airblast application (25)	0.17	8.6		2.00 lb ai per acre	20 Acres per day	0.097	6	0.0049	65	5.3

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Airblast application (26)	0.17	8.6		2.00 lb ai per acre	40 Acres per day	0.19	3	0.0098	33	2.6
Mixing/Loading Liquids for Aerial application (27)	0.023	0.24	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.10	6	0.0011	310	5.5
Wettable Powders for Aerial application (28)	0.17	8.6		0.88 lb ai per acre	350 Acres per day	0.74	1	0.038	9	0.69
Applicator										
Sprays for Aerial application (29)	No Data	No Data		0.88 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (30)	No Data	No Data		1.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (31)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (34)	0.24	0.9	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.06	9	0.00023	1400	9.3
Sprays for Airblast application (35)	0.24	0.9		0.88 lb ai per acre	40 Acres per day	0.12	5	0.00045	710	4.6
Sprays for Airblast application (36)	0.24	0.9		1.13 lb ai per acre	20 Acres per day	0.077	7	0.00029	1100	7.2
Sprays for Airblast application (37)	0.24	0.9		1.13 lb ai per acre	40 Acres per day	0.15	4	0.00058	550	3.6
Sprays for Airblast application (38)	0.24	0.9		1.50 lb ai per acre	20 Acres per day	0.10	5	0.00039	830	5.4
Sprays for Airblast application (39)	0.24	0.9		1.50 lb ai per acre	40 Acres per day	0.21	3	0.00077	420	2.7
Sprays for Airblast application (40)	0.24	0.9		2.00 lb ai per acre	20 Acres per day	0.14	4	0.00051	620	4.1
Sprays for Airblast application (41)	0.24	0.9		2.00 lb ai per acre	40 Acres per day	0.27	2	0.0010	310	2.0
Flagger										
Flagging for Sprays application (42)	0.01	0.07	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.044	13	0.00031	1000	13.0
Flagging for Sprays application (43)	0.01	0.07		1.13 lb ai per acre	350 Acres per day	0.056	10	0.00039	810	9.8
Flagging for Sprays application (44)	0.01	0.07		1.50 lb ai per acre	350 Acres per day	0.075	7	0.00053	610	7.4
Flagging for Sprays application (45)	0.01	0.07		2.00 lb ai per acre	350 Acres per day	0.1	6	0.0007	460	5.5
Flagging for Sprays application (46)	0.01	0.07	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.038	15	0.00026	1200	15.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table E4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Stone Fruits at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	0.054	3	0.0014	240	2.7
Wettable Powders for Aerial application (2)	0.17	8.6		1.13 lb ai per acre	350 Acres per day	0.40	< 1	0.048	7	0.36
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		1.50 lb ai per acre	350 Acres per day	0.072	2	0.0018	180	2.1
Wettable Powders for Aerial application (4)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	0.53	< 1	0.065	5	0.27
Mixing/Loading Liquids for Aerial application (5)	0.023	0.24		2.00 lb ai per acre	350 Acres per day	0.096	2	0.0024	130	1.5
Wettable Powders for Aerial application (6)	0.17	8.6		2.00 lb ai per acre	350 Acres per day	0.71	< 1	0.086	4	0.20
Mixing/Loading Liquids for Aerial application (7)	0.023	0.24	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Aerial application (8)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Airblast application (9)	0.023	0.24	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.0024	63	0.00006	5300	62.0
Mixing/Loading Liquids for Airblast application (10)	0.023	0.24		0.88 lb ai per acre	40 Acres per day	0.0048	31	0.00012	2700	31.0
Wettable Powders for Airblast application (11)	0.17	8.6		0.88 lb ai per acre	20 Acres per day	0.018	8	0.0022	150	8.0
Wettable Powders for Airblast application (12)	0.17	8.6		0.88 lb ai per acre	40 Acres per day	0.035	4	0.0043	74	4.0
Mixing/Loading Liquids for Airblast application (13)	0.023	0.24		1.13 lb ai per acre	20 Acres per day	0.0031	49	0.000077	4100	48.0
Mixing/Loading Liquids for Airblast application (14)	0.023	0.24		1.13 lb ai per acre	40 Acres per day	0.0062	24	0.00015	2100	24.0
Wettable Powders for Airblast application (15)	0.17	8.6		1.13 lb ai per acre	20 Acres per day	0.023	7	0.0028	120	6.2
Wettable Powders for Airblast application (16)	0.17	8.6		1.13 lb ai per acre	40 Acres per day	0.046	3	0.0055	58	3.1
Mixing/Loading Liquids for Airblast application (17)	0.023	0.24		1.50 lb ai per acre	20 Acres per day	0.0041	36	0.00010	3100	36.0
Mixing/Loading Liquids for Airblast application (18)	0.023	0.24		1.50 lb ai per acre	40 Acres per day	0.0082	18	0.00021	1600	18.0
Mixing/Loading Liquids for Airblast application (19)	0.023	0.24		1.50 lb ai per acre	20 Acres per day	0.0041	36	0.00010	3100	36.0
Mixing/Loading Liquids for Airblast application (20)	0.023	0.24		1.50 lb ai per acre	40 Acres per day	0.0082	18	0.00021	1600	18.0
Wettable Powders for Airblast application (21)	0.17	8.6		1.50 lb ai per acre	20 Acres per day	0.030	5	0.0037	87	4.7
Wettable Powders for Airblast application (22)	0.17	8.6		1.50 lb ai per acre	40 Acres per day	0.061	2	0.0074	43	2.3
Mixing/Loading Liquids for Airblast application (23)	0.023	0.24		2.00 lb ai per acre	20 Acres per day	0.0055	27	0.00014	2300	27.0
Mixing/Loading Liquids for Airblast application (24)	0.023	0.24		2.00 lb ai per acre	40 Acres per day	0.011	14	0.00027	1200	14.0
Wettable Powders for Airblast application (25)	0.17	8.6		2.00 lb ai per acre	20 Acres per day	0.041	4	0.0049	65	3.5
Wettable Powders for Airblast application (26)	0.17	8.6		2.00 lb ai per acre	40 Acres per day	0.081	2	0.0098	33	1.8
Mixing/Loading Liquids for Aerial application (27)	0.023	0.24	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.042	4	0.0011	310	3.5

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Aerial application (28)	0.17	8.6		0.88 lb ai per acre	350 Acres per day	0.31	< 1	0.038	9	0.46
Applicator										
Sprays for Aerial application (29)	No Data	No Data		0.88 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (30)	No Data	No Data		1.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (31)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (34)	0.24	0.9	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.025	6	0.00023	1400	6.0
Sprays for Airblast application (35)	0.24	0.9		0.88 lb ai per acre	40 Acres per day	0.050	3	0.00045	710	3.0
Sprays for Airblast application (36)	0.24	0.9		1.13 lb ai per acre	20 Acres per day	0.032	5	0.00029	1100	4.6
Sprays for Airblast application (37)	0.24	0.9		1.13 lb ai per acre	40 Acres per day	0.064	2	0.00058	550	2.3
Sprays for Airblast application (38)	0.24	0.9		1.50 lb ai per acre	20 Acres per day	0.043	3	0.00039	830	3.5
Sprays for Airblast application (39)	0.24	0.9		1.50 lb ai per acre	40 Acres per day	0.086	2	0.00077	420	1.7
Sprays for Airblast application (40)	0.24	0.9		2.00 lb ai per acre	20 Acres per day	0.057	3	0.00051	620	2.6
Sprays for Airblast application (41)	0.24	0.9		2.00 lb ai per acre	40 Acres per day	0.11	1	0.0010	310	1.3
Flagger										
Flagging for Sprays application (42)	0.01	0.07	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.018	8	0.00031	1000	8.2
Flagging for Sprays application (43)	0.01	0.07		1.13 lb ai per acre	350 Acres per day	0.023	6	0.00039	810	6.3
Flagging for Sprays application (44)	0.01	0.07		1.50 lb ai per acre	350 Acres per day	0.031	5	0.00053	610	4.8
Flagging for Sprays application (45)	0.01	0.07		2.00 lb ai per acre	350 Acres per day	0.042	4	0.0007	460	3.6
Flagging for Sprays application (46)	0.01	0.07	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.016	10	0.00026	1200	9.5

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table E5:Occupational Handler Short Term Risk From Azinphos-Methyl on Stone Fruits at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	0.096	6	0.00068	470	5.8
Wettable Powders for Aerial application (2)	0.13	4.3		1.13 lb ai per acre	350 Acres per day	0.73	1	0.024	13	0.72
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		1.50 lb ai per acre	350 Acres per day	0.13	4	0.0009	360	4.3
Wettable Powders for Aerial application (4)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.98	1	0.032	10	0.54
Mixing/Loading Liquids for Aerial application (5)	0.017	0.12		2.00 lb ai per acre	350 Acres per day	0.17	3	0.0012	270	3.3
Wettable Powders for Aerial application (6)	0.13	4.3		2.00 lb ai per acre	350 Acres per day	1.3	< 1	0.043	7	0.41
Mixing/Loading Liquids for Aerial application (7)	0.017	0.12	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Aerial application (8)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Airblast application (9)	0.017	0.12	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.0043	130	0.00003	11000	130.0
Mixing/Loading Liquids for Airblast application (10)	0.017	0.12		0.88 lb ai per acre	40 Acres per day	0.0085	66	0.00006	5300	65.0
Wettable Powders for Airblast application (11)	0.13	4.3		0.88 lb ai per acre	20 Acres per day	0.033	17	0.0011	300	16.0
Wettable Powders for Airblast application (12)	0.13	4.3		0.88 lb ai per acre	40 Acres per day	0.065	9	0.0022	150	8.1
Mixing/Loading Liquids for Airblast application (13)	0.017	0.12		1.13 lb ai per acre	20 Acres per day	0.0055	100	0.000039	8300	100.0
Mixing/Loading Liquids for Airblast application (14)	0.017	0.12		1.13 lb ai per acre	40 Acres per day	0.011	51	0.000077	4100	51.0
Wettable Powders for Airblast application (15)	0.13	4.3		1.13 lb ai per acre	20 Acres per day	0.042	13	0.0014	230	13.0
Wettable Powders for Airblast application (16)	0.13	4.3		1.13 lb ai per acre	40 Acres per day	0.084	7	0.0028	120	6.3
Mixing/Loading Liquids for Airblast application (17)	0.017	0.12		1.50 lb ai per acre	20 Acres per day	0.0073	77	0.000051	6200	76.0
Mixing/Loading Liquids for Airblast application (18)	0.017	0.12		1.50 lb ai per acre	40 Acres per day	0.015	38	0.00010	3100	38.0
Mixing/Loading Liquids for Airblast application (19)	0.017	0.12		1.50 lb ai per acre	20 Acres per day	0.0073	77	0.000051	6200	76.0
Mixing/Loading Liquids for Airblast application (20)	0.017	0.12		1.50 lb ai per acre	40 Acres per day	0.015	38	0.00010	3100	38.0
Wettable Powders for Airblast application (21)	0.13	4.3		1.50 lb ai per acre	20 Acres per day	0.056	10	0.0018	170	9.5
Wettable Powders for Airblast application (22)	0.13	4.3		1.50 lb ai per acre	40 Acres per day	0.11	5	0.0037	87	4.8
Mixing/Loading Liquids for Airblast application (23)	0.017	0.12		2.00 lb ai per acre	20 Acres per day	0.0097	58	0.000069	4700	57.0
Mixing/Loading Liquids for Airblast application (24)	0.017	0.12		2.00 lb ai per acre	40 Acres per day	0.019	29	0.00014	2300	28.0
Wettable Powders for Airblast application (25)	0.13	4.3		2.00 lb ai per acre	20 Acres per day	0.074	8	0.0025	130	7.1
Wettable Powders for Airblast application (26)	0.13	4.3		2.00 lb ai per acre	40 Acres per day	0.15	4	0.0049	65	3.6
Mixing/Loading Liquids for Aerial application (27)	0.017	0.12	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.074	8	0.00053	610	7.4
Wettable Powders for Aerial application (28)	0.13	4.3		0.88 lb ai per acre	350 Acres per day	0.57	1	0.019	17	0.93

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Applicator										
Sprays for Aerial application (29)	No Data	No Data		0.88 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (30)	No Data	No Data		1.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (31)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (34)	0.22	0.45	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.055	10	0.00011	2800	10.0
Sprays for Airblast application (35)	0.22	0.45		0.88 lb ai per acre	40 Acres per day	0.11	5	0.00023	1400	5.1
Sprays for Airblast application (36)	0.22	0.45		1.13 lb ai per acre	20 Acres per day	0.071	8	0.00014	2200	7.9
Sprays for Airblast application (37)	0.22	0.45		1.13 lb ai per acre	40 Acres per day	0.14	4	0.00029	1100	3.9
Sprays for Airblast application (38)	0.22	0.45		1.50 lb ai per acre	20 Acres per day	0.094	6	0.00019	1700	5.9
Sprays for Airblast application (39)	0.22	0.45		1.50 lb ai per acre	40 Acres per day	0.19	3	0.00039	830	3.0
Sprays for Airblast application (40)	0.22	0.45		2.00 lb ai per acre	20 Acres per day	0.13	4	0.00026	1200	4.4
Sprays for Airblast application (41)	0.22	0.45		2.00 lb ai per acre	40 Acres per day	0.25	2	0.00051	620	2.2
Flagger										
Flagging for Sprays application (42)	0.01	0.035	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.044	13	0.00015	2100	13.0
Flagging for Sprays application (43)	0.01	0.035		1.13 lb ai per acre	350 Acres per day	0.056	10	0.00020	1600	9.9
Flagging for Sprays application (44)	0.01	0.035		1.50 lb ai per acre	350 Acres per day	0.075	7	0.00026	1200	7.4
Flagging for Sprays application (45)	0.01	0.035		2.00 lb ai per acre	350 Acres per day	0.1	6	0.00035	910	5.6
Flagging for Sprays application (46)	0.01	0.035	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.038	15	0.00013	2400	15.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

TableE6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Stone Fruits at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	0.040	4	0.00068	470	3.7
Wettable Powders for Aerial application (2)	0.13	4.3		1.13 lb ai per acre	350 Acres per day	0.30	< 1	0.024	13	0.47
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		1.50 lb ai per acre	350 Acres per day	0.053	3	0.0009	360	2.8
Wettable Powders for Aerial application (4)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.41	< 1	0.032	10	0.36
Mixing/Loading Liquids for Aerial application (5)	0.017	0.12		2.00 lb ai per acre	350 Acres per day	0.071	2	0.0012	270	2.1
Wettable Powders for Aerial application (6)	0.13	4.3		2.00 lb ai per acre	350 Acres per day	0.54	< 1	0.043	7	0.27
Mixing/Loading Liquids for Aerial application (7)	0.017	0.12	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Aerial application (8)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Airblast application (9)	0.017	0.12		0.88 lb ai per acre	20 Acres per day	0.0018	85	0.00003	11000	84.0
Mixing/Loading Liquids for Airblast application (10)	0.017	0.12		0.88 lb ai per acre	40 Acres per day	0.0035	42	0.00006	5300	42.0
Wettable Powders for Airblast application (11)	0.13	4.3		0.88 lb ai per acre	20 Acres per day	0.014	11	0.0011	300	11.0
Wettable Powders for Airblast application (12)	0.13	4.3		0.88 lb ai per acre	40 Acres per day	0.027	6	0.0022	150	5.3
Mixing/Loading Liquids for Airblast application (13)	0.017	0.12		1.13 lb ai per acre	20 Acres per day	0.0023	66	0.000039	8300	65.0
Mixing/Loading Liquids for Airblast application (14)	0.017	0.12		1.13 lb ai per acre	40 Acres per day	0.0046	33	0.000077	4100	33.0
Wettable Powders for Airblast application (15)	0.13	4.3		1.13 lb ai per acre	20 Acres per day	0.017	9	0.0014	230	8.3
Wettable Powders for Airblast application (16)	0.13	4.3		1.13 lb ai per acre	40 Acres per day	0.035	4	0.0028	120	4.1
Mixing/Loading Liquids for Airblast application (17)	0.017	0.12		1.50 lb ai per acre	20 Acres per day	0.0030	49	0.000051	6200	49.0
Mixing/Loading Liquids for Airblast application (18)	0.017	0.12		1.50 lb ai per acre	40 Acres per day	0.0061	25	0.00010	3100	24.0
Mixing/Loading Liquids for Airblast application (19)	0.017	0.12		1.50 lb ai per acre	20 Acres per day	0.0030	49	0.000051	6200	49.0
Mixing/Loading Liquids for Airblast application (20)	0.017	0.12		1.50 lb ai per acre	40 Acres per day	0.0061	25	0.00010	3100	24.0
Wettable Powders for Airblast application (21)	0.13	4.3		1.50 lb ai per acre	20 Acres per day	0.023	6	0.0018	170	6.2
Wettable Powders for Airblast application (22)	0.13	4.3		1.50 lb ai per acre	40 Acres per day	0.046	3	0.0037	87	3.1
Mixing/Loading Liquids for Airblast application (23)	0.017	0.12		2.00 lb ai per acre	20 Acres per day	0.0041	37	0.000069	4700	37.0
Mixing/Loading Liquids for Airblast application (24)	0.017	0.12		2.00 lb ai per acre	40 Acres per day	0.0081	19	0.00014	2300	18.0
Wettable Powders for Airblast application (25)	0.13	4.3		2.00 lb ai per acre	20 Acres per day	0.031	5	0.0025	130	4.7
Wettable Powders for Airblast application (26)	0.13	4.3		2.00 lb ai per acre	40 Acres per day	0.062	2	0.0049	65	2.3
Mixing/Loading Liquids for Aerial application (27)	0.017	0.12	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.031	5	0.00053	610	4.8
Wettable Powders for Aerial application (28)	0.13	4.3		0.88 lb ai per acre	350 Acres per day	0.24	1	0.019	17	0.61

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Applicator										
Sprays for Aerial application (29)	No Data	No Data		0.88 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (30)	No Data	No Data		1.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (31)	No Data	No Data		1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (34)	0.22	0.45	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.023	7	0.00011	2800	6.5
Sprays for Airblast application (35)	0.22	0.45		0.88 lb ai per acre	40 Acres per day	0.046	3	0.00023	1400	3.3
Sprays for Airblast application (36)	0.22	0.45		1.13 lb ai per acre	20 Acres per day	0.029	5	0.00014	2200	5.1
Sprays for Airblast application (37)	0.22	0.45		1.13 lb ai per acre	40 Acres per day	0.059	3	0.00029	1100	2.5
Sprays for Airblast application (38)	0.22	0.45		1.50 lb ai per acre	20 Acres per day	0.039	4	0.00019	1700	3.8
Sprays for Airblast application (39)	0.22	0.45		1.50 lb ai per acre	40 Acres per day	0.079	2	0.00039	830	1.9
Sprays for Airblast application (40)	0.22	0.45		2.00 lb ai per acre	20 Acres per day	0.052	3	0.00026	1200	2.9
Sprays for Airblast application (41)	0.22	0.45		2.00 lb ai per acre	40 Acres per day	0.10	1	0.00051	620	1.4
Flagger										
Flagging for Sprays application (42)	0.01	0.035	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.018	8	0.00015	2100	8.2
Flagging for Sprays application (43)	0.01	0.035		1.13 lb ai per acre	350 Acres per day	0.023	6	0.00020	1600	6.4
Flagging for Sprays application (44)	0.01	0.035		1.50 lb ai per acre	350 Acres per day	0.031	5	0.00026	1200	4.8
Flagging for Sprays application (45)	0.01	0.035		2.00 lb ai per acre	350 Acres per day	0.042	4	0.00035	910	3.6
Flagging for Sprays application (46)	0.01	0.035	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.016	10	0.00013	2400	9.6

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table E7:Occupational Handler Short Term Risk From Azinphos-Methyl on Stone Fruits at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	0.048	12	0.00047	690	11.0
Wettable Powders for Aerial application (2)	0.0098	0.24		1.13 lb ai per acre	350 Acres per day	0.055	10	0.0014	240	9.7
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		1.50 lb ai per acre	350 Acres per day	0.065	9	0.00062	510	8.5
Wettable Powders for Aerial application (4)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.074	8	0.0018	180	7.3
Mixing/Loading Liquids for Aerial application (5)	0.0086	0.083		2.00 lb ai per acre	350 Acres per day	0.086	7	0.00083	390	6.4
Wettable Powders for Aerial application (6)	0.0098	0.24		2.00 lb ai per acre	350 Acres per day	0.098	6	0.0024	130	5.5
Mixing/Loading Liquids for Aerial application (7)	0.0086	0.083	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Aerial application (8)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Airblast application (9)	0.0086	0.083	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.0022	260	0.000021	15000	260.0
Mixing/Loading Liquids for Airblast application (10)	0.0086	0.083		0.88 lb ai per acre	40 Acres per day	0.0043	130	0.000042	7700	13.0
Wettable Powders for Airblast application (11)	0.0098	0.24		0.88 lb ai per acre	20 Acres per day	0.0025	230	0.00006	5300	220.0
Wettable Powders for Airblast application (12)	0.0098	0.24		0.88 lb ai per acre	40 Acres per day	0.0049	110	0.00012	2700	110.0
Mixing/Loading Liquids for Airblast application (13)	0.0086	0.083		1.13 lb ai per acre	20 Acres per day	0.0028	200	0.000027	12000	200.0
Mixing/Loading Liquids for Airblast application (14)	0.0086	0.083		1.13 lb ai per acre	40 Acres per day	0.0055	100	0.000053	6000	100.0
Wettable Powders for Airblast application (15)	0.0098	0.24		1.13 lb ai per acre	20 Acres per day	0.0032	180	0.000077	4100	170.0
Wettable Powders for Airblast application (16)	0.0098	0.24		1.13 lb ai per acre	40 Acres per day	0.0063	89	0.00015	2100	85.0
Mixing/Loading Liquids for Airblast application (17)	0.0086	0.083		1.50 lb ai per acre	20 Acres per day	0.0037	150	0.000036	9000	150.0
Mixing/Loading Liquids for Airblast application (18)	0.0086	0.083		1.50 lb ai per acre	40 Acres per day	0.0074	76	0.000071	4500	75.0
Mixing/Loading Liquids for Airblast application (19)	0.0086	0.083		1.50 lb ai per acre	20 Acres per day	0.0037	150	0.000036	9000	15.0
Mixing/Loading Liquids for Airblast application (20)	0.0086	0.083		1.50 lb ai per acre	40 Acres per day	0.0074	76	0.000071	4500	75.0
Wettable Powders for Airblast application (21)	0.0098	0.24		1.50 lb ai per acre	20 Acres per day	0.0042	130	0.00010	3100	130.0
Wettable Powders for Airblast application (22)	0.0098	0.24		1.50 lb ai per acre	40 Acres per day	0.0084	67	0.00021	1600	64.0
Mixing/Loading Liquids for Airblast application (23)	0.0086	0.083		2.00 lb ai per acre	20 Acres per day	0.0049	110	0.000047	6700	110.0
Mixing/Loading Liquids for Airblast application (24)	0.0086	0.083		2.00 lb ai per acre	40 Acres per day	0.0098	57	0.000095	3400	56.0
Wettable Powders for Airblast application (25)	0.0098	0.24		2.00 lb ai per acre	20 Acres per day	0.0056	100	0.00014	2300	96.0
Wettable Powders for Airblast application (26)	0.0098	0.24		2.00 lb ai per acre	40 Acres per day	0.011	50	0.00027	1200	48.0
Mixing/Loading Liquids for Aerial application (27)	0.0086	0.083	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.038	15	0.00036	880	15.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Aerial application (28)	0.021	0.24		0.88 lb ai per acre	350 Acres per day	0.092	6	0.0011	310	6.0
Applicator										
Sprays for Aerial application (29)	0.005	0.068	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.022	26	0.00030	1100	25.0
Sprays for Aerial application (30)	0.005	0.068		1.13 lb ai per acre	350 Acres per day	0.028	20	0.00038	840	19.0
Sprays for Aerial application (31)	0.005	0.068		1.50 lb ai per acre	350 Acres per day	0.038	15	0.00051	630	15.0
Sprays for Aerial application (32)	0.005	0.068		2.00 lb ai per acre	350 Acres per day	0.05	11	0.00068	470	11.0
Sprays for Aerial application (33)	0.005	0.068	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.019	30	0.00026	1300	29.0
Sprays for Airblast application (34)	0.019	0.45	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.0048	120	0.00011	2800	110.0
Sprays for Airblast application (35)	0.019	0.45		0.88 lb ai per acre	40 Acres per day	0.0095	59	0.00023	1400	57.0
Sprays for Airblast application (36)	0.019	0.45		1.13 lb ai per acre	20 Acres per day	0.0061	92	0.00014	2200	88.0
Sprays for Airblast application (37)	0.019	0.45		1.13 lb ai per acre	40 Acres per day	0.012	46	0.00029	1100	44.0
Sprays for Airblast application (38)	0.019	0.45		1.50 lb ai per acre	20 Acres per day	0.0081	69	0.00019	1700	66.0
Sprays for Airblast application (39)	0.019	0.45		1.50 lb ai per acre	40 Acres per day	0.016	34	0.00039	830	33.0
Sprays for Airblast application (40)	0.019	0.45		2.00 lb ai per acre	20 Acres per day	0.011	52	0.00026	1200	50.0
Sprays for Airblast application (41)	0.019	0.45		2.00 lb ai per acre	40 Acres per day	0.022	26	0.00051	620	25.0
Flagger										
Flagging for Sprays application (42)	0.00022	0.007	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.00096	580	0.000031	10000	550.0
Flagging for Sprays application (43)	0.00022	0.007		1.13 lb ai per acre	350 Acres per day	0.0012	450	0.000039	8100	430.0
Flagging for Sprays application (44)	0.00022	0.007		1.50 lb ai per acre	350 Acres per day	0.0017	340	0.000053	6100	320.0
Flagging for Sprays application (45)	0.00022	0.007		2.00 lb ai per acre	350 Acres per day	0.0022	260	0.00007	4600	240.0
Flagging for Sprays application (46)	0.00022	0.007	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.00083	680	0.000026	12000	640.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table E8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Stone Fruits at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Stone Fruits (Nectarine, Plum, Prune)	1.13 lb ai per acre	350 Acres per day	0.020	7	0.00047	690	7.4
Wettable Powders for Aerial application (2)	0.0098	0.24		1.13 lb ai per acre	350 Acres per day	0.023	7	0.0014	240	6.4
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		1.50 lb ai per acre	350 Acres per day	0.027	6	0.00062	510	5.5
Wettable Powders for Aerial application (4)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.031	5	0.0018	180	4.8
Mixing/Loading Liquids for Aerial application (5)	0.0086	0.083		2.00 lb ai per acre	350 Acres per day	0.036	4	0.00083	390	4.1
Wettable Powders for Aerial application (6)	0.0098	0.24		2.00 lb ai per acre	350 Acres per day	0.041	4	0.0024	130	3.6
Mixing/Loading Liquids for Aerial application (7)	0.0086	0.083	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Aerial application (8)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Airblast application (9)	0.0086	0.083	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.00090	170	0.000021	15000	170.0
Mixing/Loading Liquids for Airblast application (10)	0.0086	0.083		0.88 lb ai per acre	40 Acres per day	0.0018	84	0.000042	7700	83.0
Wettable Powders for Airblast application (11)	0.0098	0.24		0.88 lb ai per acre	20 Acres per day	0.0010	150	0.00006	5300	140.0
Wettable Powders for Airblast application (12)	0.0098	0.24		0.88 lb ai per acre	40 Acres per day	0.0020	73	0.00012	2700	71.0
Mixing/Loading Liquids for Airblast application (13)	0.0086	0.083		1.13 lb ai per acre	20 Acres per day	0.0012	130	0.000027	12000	130.0
Mixing/Loading Liquids for Airblast application (14)	0.0086	0.083		1.13 lb ai per acre	40 Acres per day	0.0023	65	0.000053	6000	64.0
Wettable Powders for Airblast application (15)	0.0098	0.24		1.13 lb ai per acre	20 Acres per day	0.0013	110	0.000077	4100	110.0
Wettable Powders for Airblast application (16)	0.0098	0.24		1.13 lb ai per acre	40 Acres per day	0.0026	57	0.00015	2100	56.0
Mixing/Loading Liquids for Airblast application (17)	0.0086	0.083		1.50 lb ai per acre	20 Acres per day	0.0015	98	0.000036	9000	97.0
Mixing/Loading Liquids for Airblast application (18)	0.0086	0.083		1.50 lb ai per acre	40 Acres per day	0.0031	49	0.000071	4500	48.0
Mixing/Loading Liquids for Airblast application (19)	0.0086	0.083		1.50 lb ai per acre	20 Acres per day	0.0015	98	0.000036	9000	97.0
Mixing/Loading Liquids for Airblast application (20)	0.0086	0.083		1.50 lb ai per acre	40 Acres per day	0.0031	49	0.000071	4500	48.0
Wettable Powders for Airblast application (21)	0.0098	0.24		1.50 lb ai per acre	20 Acres per day	0.0018	86	0.00010	3100	83.0
Wettable Powders for Airblast application (22)	0.0098	0.24		1.50 lb ai per acre	40 Acres per day	0.0035	43	0.00021	1600	42.0
Mixing/Loading Liquids for Airblast application (23)	0.0086	0.083		2.00 lb ai per acre	20 Acres per day	0.0020	73	0.000047	6700	72.0
Mixing/Loading Liquids for Airblast application (24)	0.0086	0.083		2.00 lb ai per acre	40 Acres per day	0.0041	37	0.000095	3400	36.0
Wettable Powders for Airblast application (25)	0.0098	0.24		2.00 lb ai per acre	20 Acres per day	0.0023	64	0.00014	2300	63.0
Wettable Powders for Airblast application (26)	0.0098	0.24		2.00 lb ai per acre	40 Acres per day	0.0047	32	0.00027	1200	31.0
Mixing/Loading Liquids for Aerial application (27)	0.0086	0.083	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.016	10	0.00036	880	9.5

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Aerial application (28)	0.021	0.24		0.88 lb ai per acre	350 Acres per day	0.038	4	0.0011	310	3.9
Applicator										
Sprays for Aerial application (29)	0.005	0.068		0.88 lb ai per acre	350 Acres per day	0.0091	16	0.00030	1100	16.0
Sprays for Aerial application (30)	0.005	0.068		1.13 lb ai per acre	350 Acres per day	0.012	13	0.00038	840	13.0
Sprays for Aerial application (31)	0.005	0.068		1.50 lb ai per acre	350 Acres per day	0.016	10	0.00051	630	9.4
Sprays for Aerial application (32)	0.005	0.068		2.00 lb ai per acre	350 Acres per day	0.021	7	0.00068	470	7.1
Sprays for Aerial application (33)	0.005	0.068	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.0078	19	0.00026	1300	19.0
Sprays for Airblast application (34)	0.019	0.45	Stone Fruits (Nectarine, Peach, Plum, Prune)	0.88 lb ai per acre	20 Acres per day	0.0020	76	0.00011	2800	74.0
Sprays for Airblast application (35)	0.019	0.45		0.88 lb ai per acre	40 Acres per day	0.0040	38	0.00023	1400	37.0
Sprays for Airblast application (36)	0.019	0.45		1.13 lb ai per acre	20 Acres per day	0.0025	59	0.00014	2200	57.0
Sprays for Airblast application (37)	0.019	0.45		1.13 lb ai per acre	40 Acres per day	0.0051	29	0.00029	1100	29.0
Sprays for Airblast application (38)	0.019	0.45		1.50 lb ai per acre	20 Acres per day	0.0034	44	0.00019	1700	43.0
Sprays for Airblast application (39)	0.019	0.45		1.50 lb ai per acre	40 Acres per day	0.0068	22	0.00039	830	22.0
Sprays for Airblast application (40)	0.019	0.45		2.00 lb ai per acre	20 Acres per day	0.0045	33	0.00026	1200	32.0
Sprays for Airblast application (41)	0.019	0.45		2.00 lb ai per acre	40 Acres per day	0.0091	17	0.00051	620	16.0
Flagger										
Flagging for Sprays application (42)	0.00022	0.007	Stone Fruits (Nectarine, Plum, Prune)	0.88 lb ai per acre	350 Acres per day	0.00040	370	0.000031	10000	360.0
Flagging for Sprays application (43)	0.00022	0.007		1.13 lb ai per acre	350 Acres per day	0.00052	290	0.000039	8100	280.0
Flagging for Sprays application (44)	0.00022	0.007		1.50 lb ai per acre	350 Acres per day	0.00069	220	0.000053	6100	210.0
Flagging for Sprays application (45)	0.00022	0.007		2.00 lb ai per acre	350 Acres per day	0.00092	160	0.00007	4600	160.0
Flagging for Sprays application (46)	0.00022	0.007	Stone Fruits (cherry)	0.75 lb ai per acre	350 Acres per day	0.00034	440	0.000026	12000	420.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table F1:Occupational Handler Short Term Risk From Azinphos-Methyl on Berries at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	3.6	< 1	0.0015	210	0.15
Wettable Powders for Aerial application (2)	3.7	43		0.25 lb ai per acre	350 Acres per day	4.6	< 1	0.054	6	0.12
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Aerial application (5)	2.9	1.2	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Aerial application (6)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Aerial application (7)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Aerial application (8)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Aerial application (9)	2.9	1.2	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Aerial application (10)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Aerial application (11)	2.9	1.2		1.00 lb ai per acre	350 Acres per day	15.0	< 1	0.006	53	0.039
Wettable Powders for Aerial application (12)	3.7	43		1.00 lb ai per acre	350 Acres per day	19.0	< 1	0.22	1	0.030
Mixing/Loading Liquids for Groundboom application (13)	2.9	1.2	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.83	1	0.00034	930	0.68
Wettable Powders for Groundboom application (14)	3.7	43		0.25 lb ai per acre	80 Acres per day	1.1	1	0.012	26	0.52
Mixing/Loading Liquids for Groundboom application (15)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Groundboom application (16)	3.7	43		0.50 lb ai per acre	80 Acres per day	2.1	< 1	0.025	13	0.26
Mixing/Loading Liquids for Groundboom application (17)	2.9	1.2	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Groundboom application (18)	3.7	43		0.50 lb ai per acre	80 Acres per day	2.1	< 1	0.025	13	0.26
Mixing/Loading Liquids for Groundboom application (19)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	2.5	< 1	0.0010	310	0.23
Wettable Powders for Groundboom application (20)	3.7	43		0.75 lb ai per acre	80 Acres per day	3.2	< 1	0.037	9	0.17
Mixing/Loading Liquids for Chemigation application (21)	2.9	1.2	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	3.6	< 1	0.0015	210	0.15
Wettable Powders for Chemigation application (22)	3.7	43		0.25 lb ai per acre	350 Acres per day	4.6	< 1	0.054	6	0.12
Mixing/Loading Liquids for Chemigation application (23)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Chemigation application (24)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Wettable Powders for Aerial application (25)	3.7	43	Berries (Blueberry),	0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Wettable Powders for Aerial application (26)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Chemigation application (27)	2.9	1.2	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Chemigation application (28)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Chemigation application (29)	3.7	43		1.00 lb ai per acre	350 Acres per day	19.0	< 1	0.22	1	0.030
Mixing/Loading Liquids for Chemigation application (30)	2.9	1.2		1.00 lb ai per acre	350 Acres per day	15.0	< 1	0.006	53	0.039
Applicator										
Sprays for Aerial application (31)	No Data	No Data	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (34)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (35)	No Data	No Data	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (36)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (37)	0.014	0.74	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.004	140	0.00021	1500	130.0
Sprays for Groundboom application (38)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.008	70	0.00042	760	64.0
Sprays for Groundboom application (39)	0.014	0.74	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.008	70	0.00042	760	64.0
Sprays for Groundboom application (40)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00063	510	43.0
Flagger										
Flagging for Sprays application (41)	0.011	0.35	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.014	41	0.00044	730	39.0
Flagging for Sprays application (42)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0
Flagging for Sprays application (43)	0.011	0.35	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0
Flagging for Sprays application (44)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.041	14	0.0013	240	13.0
Flagging for Sprays application (45)	0.011	0.35	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0
Flagging for Sprays application (46)	0.011	0.35		1.00 lb ai per acre	350 Acres per day	0.055	10	0.0018	180	9.6

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table F2:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Berries at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	1.5	< 1	0.0015	210	0.099
Wettable Powders for Aerial application (2)	3.7	43		0.25 lb ai per acre	350 Acres per day	1.9	< 1	0.054	6	0.077
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Aerial application (5)	2.9	1.2	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Aerial application (6)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Aerial application (7)	2.9	1.2	Berries (Blueberry)	0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Aerial application (8)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Aerial application (9)	2.9	1.2	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Aerial application (10)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Aerial application (11)	2.9	1.2		1.00 lb ai per acre	350 Acres per day	6.0	< 1	0.006	53	0.025
Wettable Powders for Aerial application (12)	3.7	43		1.00 lb ai per acre	350 Acres per day	7.7	< 1	0.22	1	0.019
Mixing/Loading Liquids for Groundboom application (13)	2.9	1.2	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.35	< 1	0.00034	930	0.43
Wettable Powders for Groundboom application (14)	3.7	43		0.25 lb ai per acre	80 Acres per day	0.44	< 1	0.012	26	0.34
Mixing/Loading Liquids for Groundboom application (15)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Groundboom application (16)	3.7	43		0.50 lb ai per acre	80 Acres per day	0.88	< 1	0.025	13	0.17
Mixing/Loading Liquids for Groundboom application (17)	2.9	1.2	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Groundboom application (18)	3.7	43		0.50 lb ai per acre	80 Acres per day	0.88	< 1	0.025	13	0.17
Mixing/Loading Liquids for Groundboom application (19)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	1.0	< 1	0.0010	310	0.14
Wettable Powders for Groundboom application (20)	3.7	43		0.75 lb ai per acre	80 Acres per day	1.3	< 1	0.037	9	0.11
Mixing/Loading Liquids for Chemigation application (21)	2.9	1.2	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	1.5	< 1	0.0015	210	0.099
Wettable Powders for Chemigation application (22)	3.7	43		0.25 lb ai per acre	350 Acres per day	1.9	< 1	0.054	6	0.077
Mixing/Loading Liquids for Chemigation application (23)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Chemigation application (24)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Wettable Powders for Aerial application (25)	3.7	43	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Wettable Powders for Aerial application (26)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Chemigation application (27)	2.9	1.2	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Chemigation application (28)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Chemigation application (29)	3.7	43		1.00 lb ai per acre	350 Acres per day	7.7	< 1	0.22	1	0.019
Mixing/Loading Liquids for Chemigation application (30)	2.9	1.2		1.00 lb ai per acre	350 Acres per day	6.0	< 1	0.006	53	0.025
Applicator										
Sprays for Aerial application (31)	No Data	No Data	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (34)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (35)	No Data	No Data	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (36)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (37)	0.014	0.74	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0017	90	0.00021	1500	85.0
Sprays for Groundboom application (38)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.00042	760	42.0
Sprays for Groundboom application (39)	0.014	0.74	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0033	45	0.00042	760	42.0
Sprays for Groundboom application (40)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00063	510	28.0
Flagger										
Flagging for Sprays application (41)	0.011	0.35	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0057	26	0.00044	730	25.0
Flagging for Sprays application (42)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0
Flagging for Sprays application (43)	0.011	0.35	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0
Flagging for Sprays application (44)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.017	9	0.0013	240	8.4
Flagging for Sprays application (45)	0.011	0.35	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0
Flagging for Sprays application (46)	0.011	0.35		1.00 lb ai per acre	350 Acres per day	0.023	7	0.0018	180	6.3

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table F3:Occupational Handler Short Term Risk From Azinphos-Methyl on Berries at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.029	19	0.0003	1100	19.0
Wettable Powders for Aerial application (2)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.21	3	0.011	30	2.4
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Aerial application (5)	0.023	0.24	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Aerial application (6)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Aerial application (7)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Aerial application (8)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Aerial application (9)	0.023	0.24	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Aerial application (10)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Aerial application (11)	0.023	0.24		1.00 lb ai per acre	350 Acres per day	0.12	5	0.0012	270	4.8
Wettable Powders for Aerial application (12)	0.17	8.6		1.00 lb ai per acre	350 Acres per day	0.85	1	0.043	7	0.61
Mixing/Loading Liquids for Groundboom application (13)	0.023	0.24	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0066	85	0.000069	4700	84.0
Wettable Powders for Groundboom application (14)	0.17	8.6		0.25 lb ai per acre	80 Acres per day	0.049	12	0.0025	130	11.0
Mixing/Loading Liquids for Groundboom application (15)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Groundboom application (16)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.097	6	0.0049	65	5.3
Mixing/Loading Liquids for Groundboom application (17)	0.023	0.24	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Groundboom application (18)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.097	6	0.0049	65	5.3
Mixing/Loading Liquids for Groundboom application (19)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.020	28	0.00021	1600	28.0
Wettable Powders for Groundboom application (20)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.15	4	0.0074	43	3.5
Mixing/Loading Liquids for Chemigation application (21)	0.023	0.24	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.029	19	0.0003	1100	19.0
Wettable Powders for Chemigation application (22)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.21	3	0.011	30	2.4
Mixing/Loading Liquids for Chemigation application (23)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Chemigation application (24)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Wettable Powders for Aerial application (25)	0.17	8.6	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Wettable Powders for Aerial application (26)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Chemigation application (27)	0.023	0.24	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Chemigation application (28)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Chemigation application (29)	0.17	8.6		1.00 lb ai per acre	350 Acres per day	0.85	1	0.043	7	0.61
Mixing/Loading Liquids for Chemigation application (30)	0.023	0.24		1.00 lb ai per acre	350 Acres per day	0.12	5	0.0012	270	4.8
Applicator										
Sprays for Aerial application (31)	No Data	No Data	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (34)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (35)	No Data	No Data	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (36)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (37)	0.014	0.15	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.004	140	0.000043	7500	140.0
Sprays for Groundboom application (38)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.008	70	0.000086	3700	69.0
Sprays for Groundboom application (39)	0.014	0.15	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.008	70	0.000086	3700	69.0
Sprays for Groundboom application (40)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00013	2500	46.0
Flagger										
Flagging for Sprays application (41)	0.01	0.07	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.013	45	0.000088	3700	44.0
Flagging for Sprays application (42)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0
Flagging for Sprays application (43)	0.01	0.07	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0
Flagging for Sprays application (44)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00026	1200	15.0
Flagging for Sprays application (45)	0.01	0.07	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0
Flagging for Sprays application (46)	0.01	0.07		1.00 lb ai per acre	350 Acres per day	0.05	11	0.00035	910	11.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table F4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Berries at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.012	13	0.0003	1100	12.0
Wettable Powders for Aerial application (2)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.089	2	0.011	30	1.6
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Aerial application (5)	0.023	0.24	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Aerial application (6)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Aerial application (7)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Aerial application (8)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Aerial application (9)	0.023	0.24	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Aerial application (10)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Aerial application (11)	0.023	0.24		1.00 lb ai per acre	350 Acres per day	0.048	3	0.0012	270	3.1
Wettable Powders for Aerial application (12)	0.17	8.6		1.00 lb ai per acre	350 Acres per day	0.35	< 1	0.043	7	0.40
Mixing/Loading Liquids for Groundboom application (13)	0.023	0.24	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0027	55	0.000069	4700	54.0
Wettable Powders for Groundboom application (14)	0.17	8.6		0.25 lb ai per acre	80 Acres per day	0.020	7	0.0025	130	7.0
Mixing/Loading Liquids for Groundboom application (15)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Groundboom application (16)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.041	4	0.0049	65	3.5
Mixing/Loading Liquids for Groundboom application (17)	0.023	0.24	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Groundboom application (18)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.041	4	0.0049	65	3.5
Mixing/Loading Liquids for Groundboom application (19)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.0082	18	0.00021	1600	18.0
Wettable Powders for Groundboom application (20)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.061	2	0.0074	43	2.3
Mixing/Loading Liquids for Chemigation application (21)	0.023	0.24	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.012	13	0.0003	1100	12.0
Wettable Powders for Chemigation application (22)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.089	2	0.011	30	1.6
Mixing/Loading Liquids for Chemigation application (23)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Chemigation application (24)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Wettable Powders for Aerial application (25)	0.17	8.6	Berries (Blueberry),	0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Wettable Powders for Aerial application (26)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Chemigation application (27)	0.023	0.24	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Chemigation application (28)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Chemigation application (29)	0.17	8.6		1.00 lb ai per acre	350 Acres per day	0.35	< 1	0.043	7	0.40
Mixing/Loading Liquids for Chemigation application (30)	0.023	0.24		1.00 lb ai per acre	350 Acres per day	0.048	3	0.0012	270	3.1
Applicator										
Sprays for Aerial application (31)	No Data	No Data	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (34)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (35)	No Data	No Data	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (36)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (37)	0.014	0.15	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0017	90	0.000043	7500	89.0
Sprays for Groundboom application (38)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.000086	3700	44.0
Sprays for Groundboom application (39)	0.014	0.15	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0033	45	0.000086	3700	44.0
Sprays for Groundboom application (40)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00013	2500	30.0
Flagger										
Flagging for Sprays application (41)	0.01	0.07	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0052	29	0.000088	3700	29.0
Flagging for Sprays application (42)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0
Flagging for Sprays application (43)	0.01	0.07	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0
Flagging for Sprays application (44)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00026	1200	9.5
Flagging for Sprays application (45)	0.01	0.07	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0
Flagging for Sprays application (46)	0.01	0.07		1.00 lb ai per acre	350 Acres per day	0.021	7	0.00035	910	7.1

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table F5:Occupational Handler Short Term Risk From Azinphos-Methyl on Berries at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.021	26	0.00015	2100	26.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.16	3	0.0054	60	3.3
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Aerial application (5)	0.017	0.12	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Aerial application (6)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Aerial application (7)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Aerial application (8)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Aerial application (9)	0.017	0.12	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Aerial application (10)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Aerial application (11)	0.017	0.12		1.00 lb ai per acre	350 Acres per day	0.085	7	0.0006	530	6.5
Wettable Powders for Aerial application (12)	0.13	4.3		1.00 lb ai per acre	350 Acres per day	0.65	1	0.022	15	0.81
Mixing/Loading Liquids for Groundboom application (13)	0.017	0.12	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0049	120	0.000034	9300	110.0
Wettable Powders for Groundboom application (14)	0.13	4.3		0.25 lb ai per acre	80 Acres per day	0.037	15	0.0012	260	14.0
Mixing/Loading Liquids for Groundboom application (15)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Groundboom application (16)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.074	8	0.0025	130	7.1
Mixing/Loading Liquids for Groundboom application (17)	0.017	0.12	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Groundboom application (18)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.074	8	0.0025	130	7.1
Mixing/Loading Liquids for Groundboom application (19)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.015	38	0.00010	3100	38.0
Wettable Powders for Groundboom application (20)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.11	5	0.0037	87	4.8
Mixing/Loading Liquids for Chemigation application (21)	0.017	0.12	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.021	26	0.00015	2100	26.0
Wettable Powders for Chemigation application (22)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.16	3	0.0054	60	3.3
Mixing/Loading Liquids for Chemigation application (23)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Chemigation application (24)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Wettable Powders for Aerial application (25)	0.13	4.3	Berries (Blueberry),	0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Aerial application (26)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Chemigation application (27)	0.017	0.12	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Chemigation application (28)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Wettable Powders for Chemigation application (29)	0.13	4.3		1.00 lb ai per acre	350 Acres per day	0.65	1	0.022	15	0.81
Mixing/Loading Liquids for Chemigation application (30)	0.017	0.12		1.00 lb ai per acre	350 Acres per day	0.085	7	0.0006	530	6.5
Applicator										
Sprays for Aerial application (31)	No Data	No Data	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (34)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (35)	No Data	No Data	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (36)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (37)	0.011	0.074	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0031	180	0.000021	15000	180.0
Sprays for Groundboom application (38)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0063	89	0.000042	7600	88.0
Sprays for Groundboom application (39)	0.011	0.074	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0063	89	0.000042	7600	88.0
Sprays for Groundboom application (40)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0094	59	0.000063	5000	59.0
Flagger										
Flagging for Sprays application (41)	0.01	0.035	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.013	45	0.000044	7300	45.0
Flagging for Sprays application (42)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0
Flagging for Sprays application (43)	0.01	0.035	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0
Flagging for Sprays application (44)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00013	2400	15.0
Flagging for Sprays application (45)	0.01	0.035	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0
Flagging for Sprays application (46)	0.01	0.035		1.00 lb ai per acre	350 Acres per day	0.05	11	0.00018	1800	11.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table F6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Berries at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0089	17	0.00015	2100	17.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.068	2	0.0054	60	2.1
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Aerial application (5)	0.017	0.12	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Aerial application (6)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Aerial application (7)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Aerial application (8)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Aerial application (9)	0.017	0.12	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Aerial application (10)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Aerial application (11)	0.017	0.12		1.00 lb ai per acre	350 Acres per day	0.035	4	0.0006	530	4.2
Wettable Powders for Aerial application (12)	0.13	4.3		1.00 lb ai per acre	350 Acres per day	0.27	1	0.022	15	0.53
Mixing/Loading Liquids for Groundboom application (13)	0.017	0.12	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0020	74	0.000034	9300	73.0
Wettable Powders for Groundboom application (14)	0.13	4.3		0.25 lb ai per acre	80 Acres per day	0.015	10	0.0012	260	9.3
Mixing/Loading Liquids for Groundboom application (15)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Groundboom application (16)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.031	5	0.0025	130	4.7
Mixing/Loading Liquids for Groundboom application (17)	0.017	0.12	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Groundboom application (18)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.031	5	0.0025	130	4.7
Mixing/Loading Liquids for Groundboom application (19)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.0061	25	0.00010	3100	24.0
Wettable Powders for Groundboom application (20)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.046	3	0.0037	87	3.1
Mixing/Loading Liquids for Chemigation application (21)	0.017	0.12	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0089	17	0.00015	2100	17.0
Wettable Powders for Chemigation application (22)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.068	2	0.0054	60	2.1
Mixing/Loading Liquids for Chemigation application (23)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Chemigation application (24)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Wettable Powders for Aerial application (25)	0.13	4.3	Berries (Blueberry),	0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Wettable Powders for Aerial application (26)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Chemigation application (27)	0.017	0.12	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Chemigation application (28)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Chemigation application (29)	0.13	4.3		1.00 lb ai per acre	350 Acres per day	0.27	1	0.022	15	0.53
Mixing/Loading Liquids for Chemigation application (30)	0.017	0.12		1.00 lb ai per acre	350 Acres per day	0.035	4	0.0006	530	4.2
Applicator										
Sprays for Aerial application (31)	No Data	No Data	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (32)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (33)	No Data	No Data	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (34)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (35)	No Data	No Data	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (36)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (37)	0.011	0.074	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0013	110	0.000021	15000	110.0
Sprays for Groundboom application (38)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0026	57	0.000042	7600	57.0
Sprays for Groundboom application (39)	0.011	0.074	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0026	57	0.000042	7600	57.0
Sprays for Groundboom application (40)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0039	38	0.000063	5000	38.0
Flagger										
Flagging for Sprays application (41)	0.01	0.035	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0052	29	0.000044	7300	29.0
Flagging for Sprays application (42)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0
Flagging for Sprays application (43)	0.01	0.035	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0
Flagging for Sprays application (44)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00013	2400	9.6
Flagging for Sprays application (45)	0.01	0.035	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0
Flagging for Sprays application (46)	0.01	0.035		1.00 lb ai per acre	350 Acres per day	0.021	7	0.00018	1800	7.2

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table F7:Occupational Handler Short Term Risk From Azinphos-Methyl on Berries at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.011	52	0.00010	3100	51.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.012	46	0.0003	1100	44.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Mixing/Loading Liquids for Aerial application (5)	0.0086	0.083	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Aerial application (6)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Mixing/Loading Liquids for Aerial application (7)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Aerial application (8)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Aerial application (9)	0.0086	0.083	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Aerial application (10)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Mixing/Loading Liquids for Aerial application (11)	0.0086	0.083		1.00 lb ai per acre	350 Acres per day	0.043	13	0.00042	770	13.0
Wettable Powders for Aerial application (12)	0.0098	0.24		1.00 lb ai per acre	350 Acres per day	0.049	11	0.0012	270	11.0
Mixing/Loading Liquids for Groundboom application (13)	0.0086	0.083	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0025	230	0.000024	13000	220.0
Wettable Powders for Groundboom application (14)	0.0098	0.24		0.25 lb ai per acre	80 Acres per day	0.0028	200	0.000069	4700	190.0
Mixing/Loading Liquids for Groundboom application (15)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0049	110	0.000047	6700	11.0
Wettable Powders for Groundboom application (16)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0056	100	0.00014	2300	96.0
Mixing/Loading Liquids for Groundboom application (17)	0.0086	0.083	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0049	110	0.000047	6700	110.0
Wettable Powders for Groundboom application (18)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0056	100	0.00014	2300	96.0
Mixing/Loading Liquids for Groundboom application (19)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0074	76	0.000071	4500	75.0
Wettable Powders for Groundboom application (20)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0084	67	0.00021	1600	64.0
Mixing/Loading Liquids for Chemigation application (21)	0.0086	0.083	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.011	52	0.00010	3100	51.0
Wettable Powders for Chemigation application (22)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.012	46	0.0003	1100	44.0
Mixing/Loading Liquids for Chemigation application (23)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Chemigation application (24)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Wettable Powders for Aerial application (25)	0.0098	0.24	Berries (Blueberry),	0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Wettable Powders for Aerial application (26)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Chemigation application (27)	0.0086	0.083	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Chemigation application (28)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Chemigation application (29)	0.0098	0.24		1.00 lb ai per acre	350 Acres per day	0.049	11	0.0012	270	11.0
Mixing/Loading Liquids for Chemigation application (30)	0.0086	0.083		1.00 lb ai per acre	350 Acres per day	0.043	13	0.00042	770	13.0
Applicator										
Sprays for Aerial application (31)	0.005	0.068	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0063	90	0.000085	3800	88.0
Sprays for Aerial application (32)	0.005	0.068		0.50 lb ai per acre	350 Acres per day	0.013	45	0.00017	1900	44.0
Sprays for Aerial application (33)	0.005	0.068	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.013	45	0.00017	1900	44.0
Sprays for Aerial application (34)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.019	30	0.00026	1300	29.0
Sprays for Aerial application (35)	0.005	0.068	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.013	45	0.00017	1900	44.0
Sprays for Aerial application (36)	0.005	0.068		1.00 lb ai per acre	350 Acres per day	0.025	22	0.00034	940	22.0
Sprays for Groundboom application (37)	0.005	0.043	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0014	390	0.000012	26000	390.0
Sprays for Groundboom application (38)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0029	200	0.000025	13000	200.00
Sprays for Groundboom application (39)	0.005	0.043	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0029	200	0.000025	13000	200.0
Sprays for Groundboom application (40)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0043	130	0.000037	8700	130.0
Flagger										
Flagging for Sprays application (41)	0.00022	0.007	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.00028	2000	0.0000088	37000	2000.0
Flagging for Sprays application (42)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0
Flagging for Sprays application (43)	0.00022	0.007	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0
Flagging for Sprays application (44)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00083	680	0.000026	12000	640.0
Flagging for Sprays application (45)	0.00022	0.007	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0
Flagging for Sprays application (46)	0.00022	0.007		1.00 lb ai per acre	350 Acres per day	0.0011	510	0.000035	9100	480.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table F8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Berries at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0045	33	0.00010	3100	33.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.0051	29	0.0003	1100	29.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Aerial application (5)	0.0086	0.083	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Aerial application (6)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Aerial application (7)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Aerial application (8)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Aerial application (9)	0.0086	0.083	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Aerial application (10)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Aerial application (11)	0.0086	0.083		1.00 lb ai per acre	350 Acres per day	0.018	8	0.00042	770	8.3
Wettable Powders for Aerial application (12)	0.0098	0.24		1.00 lb ai per acre	350 Acres per day	0.020	7	0.0012	270	7.1
Mixing/Loading Liquids for Groundboom application (13)	0.0086	0.083	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.0010	150	0.000024	13000	140.0
Wettable Powders for Groundboom application (14)	0.0098	0.24		0.25 lb ai per acre	80 Acres per day	0.0012	130	0.000069	4700	130
Mixing/Loading Liquids for Groundboom application (15)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Groundboom application (16)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0023	64	0.00014	2300	63.0
Mixing/Loading Liquids for Groundboom application (17)	0.0086	0.083	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Groundboom application (18)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0023	64	0.00014	2300	63.0
Mixing/Loading Liquids for Groundboom application (19)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0031	49	0.000071	4500	48.0
Wettable Powders for Groundboom application (20)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0035	43	0.00021	1600	42.0
Mixing/Loading Liquids for Chemigation application (21)	0.0086	0.083	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0045	33	0.00010	3100	33.0
Wettable Powders for Chemigation application (22)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.0051	29	0.0003	1100	29.0
Mixing/Loading Liquids for Chemigation application (23)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Chemigation application (24)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Wettable Powders for Aerial application (25)	0.0098	0.24	Berries (Blueberry),	0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Wettable Powders for Aerial application (26)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Chemigation application (27)	0.0086	0.083	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Chemigation application (28)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Wettable Powders for Chemigation application (29)	0.0098	0.24		1.00 lb ai per acre	350 Acres per day	0.010	7	0.0012	270	7.1
Mixing/Loading Liquids for Chemigation application (30)	0.0086	0.083		1.00 lb ai per acre	350 Acres per day	0.018	8	0.00042	770	8.3
Applicator										
Sprays for Aerial application (31)	0.005	0.068	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.0026	58	0.000085	3800	57.0
Sprays for Aerial application (32)	0.005	0.068		0.50 lb ai per acre	350 Acres per day	0.0052	29	0.00017	1900	28.0
Sprays for Aerial application (33)	0.005	0.068	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.0052	29	0.00017	1900	28.0
Sprays for Aerial application (34)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.0078	19	0.00026	1300	19.0
Sprays for Aerial application (35)	0.005	0.068	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.0052	29	0.00017	1900	28.0
Sprays for Aerial application (36)	0.005	0.068		1.00 lb ai per acre	350 Acres per day	0.010	14	0.00034	940	14.0
Sprays for Groundboom application (37)	0.005	0.043	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	80 Acres per day	0.00060	250	0.000012	26000	250.0
Sprays for Groundboom application (38)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0012	130	0.000025	13000	120.0
Sprays for Groundboom application (39)	0.005	0.043	Berries (Blueberry)	0.50 lb ai per acre	80 Acres per day	0.0012	130	0.000025	13000	120.0
Sprays for Groundboom application (40)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0018	84	0.000037	8700	83.0
Flagger										
Flagging for Sprays application (41)	0.00022	0.007	Berries (boysenberry, Raspberry, Blackberry, Loganberry, Strawberry)	0.25 lb ai per acre	350 Acres per day	0.00011	1300	0.0000088	37000	1300.0
Flagging for Sprays application (42)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0
Flagging for Sprays application (43)	0.00022	0.007	Berries (Blueberry)	0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0
Flagging for Sprays application (44)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00034	440	0.000026	12000	420.0
Flagging for Sprays application (45)	0.00022	0.007	Berries (Cranberry)	0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0
Flagging for Sprays application (46)	0.00022	0.007		1.00 lb ai per acre	350 Acres per day	0.00046	330	0.000035	9100	320.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table G1:Occupational Handler Short Term Risk From Azinphos-Methyl on Small Fruits at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Aerial application (2)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		1.00 lb ai per acre	350 Acres per day	15.0	< 1	0.006	53	0.039
Wettable Powders for Aerial application (4)	3.7	43		1.00 lb ai per acre	350 Acres per day	19.0	< 1	0.22	1	0.030
Mixing/Loading Liquids for Airblast application (5)	2.9	1.2		0.75 lb ai per acre	20 Acres per day	0.62	1	0.00026	1200	0.90
Mixing/Loading Liquids for Airblast application (6)	2.9	1.2		0.75 lb ai per acre	40 Acres per day	1.2	< 1	0.00051	620	0.45
Wettable Powders for Airblast application (7)	3.7	43		0.75 lb ai per acre	20 Acres per day	0.79	1	0.0092	35	0.69
Wettable Powders for Airblast application (8)	3.7	43		0.75 lb ai per acre	40 Acres per day	1.6	< 1	0.018	17	0.35
Mixing/Loading Liquids for Airblast application (9)	2.9	1.2		1.00 lb ai per acre	20 Acres per day	0.83	1	0.00034	930	0.68
Mixing/Loading Liquids for Airblast application (10)	2.9	1.2		1.00 lb ai per acre	40 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Airblast application (11)	3.7	43		1.00 lb ai per acre	20 Acres per day	1.1	1	0.012	26	0.52
Wettable Powders for Airblast application (12)	3.7	43		1.00 lb ai per acre	40 Acres per day	2.1	< 1	0.025	13	0.26
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.36	4.5		0.75 lb ai per acre	20 Acres per day	0.077	7	0.00096	330	7.1
Sprays for Airblast application (16)	0.36	4.5		0.75 lb ai per acre	40 Acres per day	0.15	4	0.0019	170	3.6
Sprays for Airblast application (17)	0.36	4.5		1.00 lb ai per acre	20 Acres per day	0.10	5	0.0013	250	5.3
Sprays for Airblast application (18)	0.36	4.5		1.00 lb ai per acre	40 Acres per day	0.21	3	0.0026	120	2.7
Flagger										
Flagging for Sprays application (19)	0.011	0.35	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.041	14	0.0013	240	13.0
Flagging for Sprays application (20)	0.011	0.35		1.00 lb ai per acre	350 Acres per day	0.055	10	0.0018	180	9.6

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table G2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Small Fruits at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Aerial application (2)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		1.00 lb ai per acre	350 Acres per day	6.0	< 1	0.006	53	0.025
Wettable Powders for Aerial application (4)	3.7	43		1.00 lb ai per acre	350 Acres per day	7.7	< 1	0.22	1	0.019
Mixing/Loading Liquids for Airblast application (5)	2.9	1.2		0.75 lb ai per acre	20 Acres per day	0.26	1	0.00026	1200	0.58
Mixing/Loading Liquids for Airblast application (6)	2.9	1.2		0.75 lb ai per acre	40 Acres per day	0.52	< 1	0.00051	620	0.29
Wettable Powders for Airblast application (7)	3.7	43		0.75 lb ai per acre	20 Acres per day	0.33	< 1	0.0092	35	0.45
Wettable Powders for Airblast application (8)	3.7	43		0.75 lb ai per acre	40 Acres per day	0.66	< 1	0.018	17	0.22
Mixing/Loading Liquids for Airblast application (9)	2.9	1.2		1.00 lb ai per acre	20 Acres per day	0.35	< 1	0.00034	930	0.43
Mixing/Loading Liquids for Airblast application (10)	2.9	1.2		1.00 lb ai per acre	40 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Airblast application (11)	3.7	43		1.00 lb ai per acre	20 Acres per day	0.44	< 1	0.012	26	0.34
Wettable Powders for Airblast application (12)	3.7	43		1.00 lb ai per acre	40 Acres per day	0.88	< 1	0.025	13	0.17
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.36	4.5		0.75 lb ai per acre	20 Acres per day	0.032	5	0.00096	330	4.6
Sprays for Airblast application (16)	0.36	4.5		0.75 lb ai per acre	40 Acres per day	0.064	2	0.0019	170	2.3
Sprays for Airblast application (17)	0.36	4.5		1.00 lb ai per acre	20 Acres per day	0.043	3	0.0013	250	3.4
Sprays for Airblast application (18)	0.36	4.5		1.00 lb ai per acre	40 Acres per day	0.086	2	0.0026	120	1.7
Flagger										
Flagging for Sprays application (19)	0.011	0.35	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.017	9	0.0013	240	8.4
Flagging for Sprays application (20)	0.011	0.35		1.00 lb ai per acre	350 Acres per day	0.023	7	0.0018	180	6.3

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table G3:Occupational Handler Short Term Risk From Azinphos-Methyl on Small Fruits at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Aerial application (2)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		1.00 lb ai per acre	350 Acres per day	0.12	5	0.0012	270	4.8
Wettable Powders for Aerial application (4)	0.17	8.6		1.00 lb ai per acre	350 Acres per day	0.85	1	0.043	7	0.61
Mixing/Loading Liquids for Airblast application (5)	0.023	0.24		0.75 lb ai per acre	20 Acres per day	0.0049	110	0.000051	6200	110.0
Mixing/Loading Liquids for Airblast application (6)	0.023	0.24		0.75 lb ai per acre	40 Acres per day	0.0099	57	0.00010	3100	56.0
Wettable Powders for Airblast application (7)	0.17	8.6		0.75 lb ai per acre	20 Acres per day	0.036	15	0.0018	170	14.0
Wettable Powders for Airblast application (8)	0.17	8.6		0.75 lb ai per acre	40 Acres per day	0.073	8	0.0037	87	7.1
Mixing/Loading Liquids for Airblast application (9)	0.023	0.24		1.00 lb ai per acre	20 Acres per day	0.0066	85	0.000069	4700	84.0
Mixing/Loading Liquids for Airblast application (10)	0.023	0.24		1.00 lb ai per acre	40 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Airblast application (11)	0.17	8.6		1.00 lb ai per acre	20 Acres per day	0.049	12	0.0025	130	11.0
Wettable Powders for Airblast application (12)	0.17	8.6		1.00 lb ai per acre	40 Acres per day	0.097	6	0.0049	65	5.3
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.24	0.9		0.75 lb ai per acre	20 Acres per day	0.051	11	0.00019	1700	11.0
Sprays for Airblast application (16)	0.24	0.9		0.75 lb ai per acre	40 Acres per day	0.10	5	0.00039	830	5.4
Sprays for Airblast application (17)	0.24	0.9		1.00 lb ai per acre	20 Acres per day	0.069	8	0.00026	1200	8.1
Sprays for Airblast application (18)	0.24	0.9		1.00 lb ai per acre	40 Acres per day	0.14	4	0.00051	620	4.1
Flagger										
Flagging for Sprays application (19)	0.01	0.07	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.038	15	0.00026	1200	15.0
Flagging for Sprays application (20)	0.01	0.07		1.00 lb ai per acre	350 Acres per day	0.05	11	0.00035	910	11.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table G4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Small Fruits at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Aerial application (2)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		1.00 lb ai per acre	350 Acres per day	0.048	3	0.0012	270	3.1
Wettable Powders for Aerial application (4)	0.17	8.6		1.00 lb ai per acre	350 Acres per day	0.35	< 1	0.043	7	0.40
Mixing/Loading Liquids for Airblast application (5)	0.023	0.24		0.75 lb ai per acre	20 Acres per day	0.0021	73	0.000051	6200	72.0
Mixing/Loading Liquids for Airblast application (6)	0.023	0.24		0.75 lb ai per acre	40 Acres per day	0.0041	36	0.00010	3100	36.0
Wettable Powders for Airblast application (7)	0.17	8.6		0.75 lb ai per acre	20 Acres per day	0.015	10	0.0018	170	9.3
Wettable Powders for Airblast application (8)	0.17	8.6		0.75 lb ai per acre	40 Acres per day	0.030	5	0.0037	87	4.7
Mixing/Loading Liquids for Airblast application (9)	0.023	0.24		1.00 lb ai per acre	20 Acres per day	0.0027	55	0.000069	4700	54.0
Mixing/Loading Liquids for Airblast application (10)	0.023	0.24		1.00 lb ai per acre	40 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Airblast application (11)	0.17	8.6		1.00 lb ai per acre	20 Acres per day	0.020	7	0.0025	130	7.0
Wettable Powders for Airblast application (12)	0.17	8.6		1.00 lb ai per acre	40 Acres per day	0.041	4	0.0049	65	3.5
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.24	0.9		0.75 lb ai per acre	20 Acres per day	0.021	7	0.00019	1700	7.0
Sprays for Airblast application (16)	0.24	0.9		0.75 lb ai per acre	40 Acres per day	0.043	3	0.00039	830	3.5
Sprays for Airblast application (17)	0.24	0.9		1.00 lb ai per acre	20 Acres per day	0.029	5	0.00026	1200	5.2
Sprays for Airblast application (18)	0.24	0.9		1.00 lb ai per acre	40 Acres per day	0.057	3	0.00051	620	2.6
Flagger										
Flagging for Sprays application (19)	0.01	0.07	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.016	10	0.00026	1200	9.5
Flagging for Sprays application (20)	0.01	0.07		1.00 lb ai per acre	350 Acres per day	0.021	7	0.00035	910	7.1

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table G5:Occupational Handler Short Term Risk From Azinphos-Methyl on Small Fruits at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Aerial application (2)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		1.00 lb ai per acre	350 Acres per day	0.085	7	0.0006	530	6.5
Wettable Powders for Aerial application (4)	0.13	4.3		1.00 lb ai per acre	350 Acres per day	0.65	1	0.022	15	0.81
Mixing/Loading Liquids for Airblast application (5)	0.017	0.12		0.75 lb ai per acre	20 Acres per day	0.0036	150	0.000026	12000	150.0
Mixing/Loading Liquids for Airblast application (6)	0.017	0.12		0.75 lb ai per acre	40 Acres per day	0.0073	77	0.000051	6200	76.0
Wettable Powders for Airblast application (7)	0.13	4.3		0.75 lb ai per acre	20 Acres per day	0.028	20	0.00092	350	19.0
Wettable Powders for Airblast application (8)	0.13	4.3		0.75 lb ai per acre	40 Acres per day	0.056	10	0.0018	170	9.5
Mixing/Loading Liquids for Airblast application (9)	0.017	0.12		1.00 lb ai per acre	20 Acres per day	0.0049	120	0.000034	9300	110.0
Mixing/Loading Liquids for Airblast application (10)	0.017	0.12		1.00 lb ai per acre	40 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Airblast application (11)	0.13	4.3		1.00 lb ai per acre	20 Acres per day	0.037	15	0.0012	260	14.0
Wettable Powders for Airblast application (12)	0.13	4.3		1.00 lb ai per acre	40 Acres per day	0.074	8	0.0025	130	7.1
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.22	0.45		0.75 lb ai per acre	20 Acres per day	0.047	12	0.000096	3300	12.0
Sprays for Airblast application (16)	0.22	0.45		0.75 lb ai per acre	40 Acres per day	0.094	6	0.00019	1700	5.9
Sprays for Airblast application (17)	0.22	0.45		1.00 lb ai per acre	20 Acres per day	0.063	9	0.00013	2500	8.9
Sprays for Airblast application (18)	0.22	0.45		1.00 lb ai per acre	40 Acres per day	0.13	4	0.00026	1200	4.4
Flagger										
Flagging for Sprays application (19)	0.01	0.035	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.038	15	0.00013	2400	15.0
Flagging for Sprays application (20)	0.01	0.035		1.00 lb ai per acre	350 Acres per day	0.05	11	0.00018	1800	11.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table G6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Small Fruits at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Aerial application (2)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		1.00 lb ai per acre	350 Acres per day	0.035	4	0.0006	530	4.2
Wettable Powders for Aerial application (4)	0.13	4.3		1.00 lb ai per acre	350 Acres per day	0.27	1	0.022	15	0.53
Mixing/Loading Liquids for Airblast application (5)	0.017	0.12		0.75 lb ai per acre	20 Acres per day	0.0015	99	0.000026	12000	98.0
Mixing/Loading Liquids for Airblast application (6)	0.017	0.12		0.75 lb ai per acre	40 Acres per day	0.0030	49	0.000051	6200	49.0
Wettable Powders for Airblast application (7)	0.13	4.3		0.75 lb ai per acre	20 Acres per day	0.012	13	0.00092	350	12.0
Wettable Powders for Airblast application (8)	0.13	4.3		0.75 lb ai per acre	40 Acres per day	0.023	6	0.0018	170	6.2
Mixing/Loading Liquids for Airblast application (9)	0.017	0.12		1.00 lb ai per acre	20 Acres per day	0.0020	74	0.000034	9300	73.0
Mixing/Loading Liquids for Airblast application (10)	0.017	0.12		1.00 lb ai per acre	40 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Airblast application (11)	0.13	4.3		1.00 lb ai per acre	20 Acres per day	0.015	10	0.0012	260	9.3
Wettable Powders for Airblast application (12)	0.13	4.3		1.00 lb ai per acre	40 Acres per day	0.031	5	0.0025	130	4.7
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		1.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (15)	0.22	0.45		0.75 lb ai per acre	20 Acres per day	0.020	8	0.000096	3300	7.6
Sprays for Airblast application (16)	0.22	0.45		0.75 lb ai per acre	40 Acres per day	0.039	4	0.00019	1700	3.8
Sprays for Airblast application (17)	0.22	0.45		1.00 lb ai per acre	20 Acres per day	0.026	6	0.00013	2500	5.7
Sprays for Airblast application (18)	0.22	0.45		1.00 lb ai per acre	40 Acres per day	0.052	3	0.00026	1200	2.9
Flagger										
Flagging for Sprays application (19)	0.01	0.035	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.016	10	0.00013	2400	9.6
Flagging for Sprays application (20)	0.01	0.035		1.00 lb ai per acre	350 Acres per day	0.021	7	0.00018	1800	7.2

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Max PPE inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table G7:Occupational Handler Short Term Risk From Azinphos-Methyl on Small Fruits at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		1.00 lb ai per acre	350 Acres per day	0.043	13	0.00042	770	13.0
Wettable Powders for Aerial application (4)	0.0098	0.24		1.00 lb ai per acre	350 Acres per day	0.049	11	0.0012	270	11.0
Mixing/Loading Liquids for Airblast application (5)	0.0086	0.083		0.75 lb ai per acre	20 Acres per day	0.0018	300	0.000018	18000	300.0
Mixing/Loading Liquids for Airblast application (6)	0.0086	0.083		0.75 lb ai per acre	40 Acres per day	0.0037	150	0.000036	9000	150.0
Wettable Powders for Airblast application (7)	0.0098	0.24		0.75 lb ai per acre	20 Acres per day	0.0021	270	0.000051	6200	260.0
Wettable Powders for Airblast application (8)	0.0098	0.24		0.75 lb ai per acre	40 Acres per day	0.0042	130	0.00010	3100	130.0
Mixing/Loading Liquids for Airblast application (9)	0.0086	0.083		1.00 lb ai per acre	20 Acres per day	0.0025	230	0.000024	13000	220.0
Mixing/Loading Liquids for Airblast application (10)	0.0086	0.083		1.00 lb ai per acre	40 Acres per day	0.0049	110	0.000047	6700	11.0
Wettable Powders for Airblast application (11)	0.0098	0.24		1.00 lb ai per acre	20 Acres per day	0.0028	200	0.000069	4700	190.0
Wettable Powders for Airblast application (12)	0.0098	0.24		1.00 lb ai per acre	40 Acres per day	0.0056	100	0.00014	2300	96.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.019	30	0.00026	1300	29.0
Sprays for Aerial application (14)	0.005	0.068		1.00 lb ai per acre	350 Acres per day	0.025	22	0.00034	940	22.0
Sprays for Airblast application (15)	0.019	0.45		0.75 lb ai per acre	20 Acres per day	0.0041	140	0.000096	3300	130.0
Sprays for Airblast application (16)	0.019	0.45		0.75 lb ai per acre	40 Acres per day	0.0081	69	0.00019	1700	66.0
Sprays for Airblast application (17)	0.019	0.45		1.00 lb ai per acre	20 Acres per day	0.0054	100	0.00013	2500	99.0
Sprays for Airblast application (18)	0.019	0.45		1.00 lb ai per acre	40 Acres per day	0.011	52	0.00026	1200	50.0
Flagger										
Flagging for Sprays application (19)	0.00022	0.007	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.00083	680	0.000026	12000	640.0
Flagging for Sprays application (20)	0.00022	0.007		1.00 lb ai per acre	350 Acres per day	0.0011	510	0.000035	9100	480.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table G8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl ob Small Fruits at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		1.00 lb ai per acre	350 Acres per day	0.018	8	0.00042	770	8.3
Wettable Powders for Aerial application (4)	0.0098	0.24		1.00 lb ai per acre	350 Acres per day	0.020	7	0.0012	270	7.1
Mixing/Loading Liquids for Airblast application (5)	0.0086	0.083		0.75 lb ai per acre	20 Acres per day	0.00077	200	0.000018	18000	200.0
Mixing/Loading Liquids for Airblast application (6)	0.0086	0.083		0.75 lb ai per acre	40 Acres per day	0.0015	98	0.000036	9000	97.0
Wettable Powders for Airblast application (7)	0.0098	0.24		0.75 lb ai per acre	20 Acres per day	0.00088	170	0.000051	6200	170.0
Wettable Powders for Airblast application (8)	0.0098	0.24		0.75 lb ai per acre	40 Acres per day	0.0018	86	0.00010	3100	83.0
Mixing/Loading Liquids for Airblast application (9)	0.0086	0.083		1.00 lb ai per acre	20 Acres per day	0.0010	150	0.000024	13000	140.0
Mixing/Loading Liquids for Airblast application (10)	0.0086	0.083		1.00 lb ai per acre	40 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Airblast application (11)	0.0098	0.24		1.00 lb ai per acre	20 Acres per day	0.0012	130	0.000069	4700	130.0
Wettable Powders for Airblast application (12)	0.0098	0.24		1.00 lb ai per acre	40 Acres per day	0.0023	64	0.00014	2300	63.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.0078	19	0.00026	1300	19.0
Sprays for Aerial application (14)	0.005	0.068		1.00 lb ai per acre	350 Acres per day	0.010	14	0.00034	940	14.0
Sprays for Airblast application (15)	0.019	0.45		0.75 lb ai per acre	20 Acres per day	0.0017	88	0.000096	3300	86.0
Sprays for Airblast application (16)	0.019	0.45		0.75 lb ai per acre	40 Acres per day	0.0034	44	0.00019	1700	43.0
Sprays for Airblast application (17)	0.019	0.45		1.00 lb ai per acre	20 Acres per day	0.0023	66	0.00013	2500	65.0
Sprays for Airblast application (18)	0.019	0.45		1.00 lb ai per acre	40 Acres per day	0.0045	33	0.00026	1200	32.0
Flagger										
Flagging for Sprays application (19)	0.00022	0.007	Small Fruit (Grape)	0.75 lb ai per acre	350 Acres per day	0.00034	440	0.000026	12000	420.0
Flagging for Sprays application (20)	0.00022	0.007		1.00 lb ai per acre	350 Acres per day	0.00046	330	0.000035	9100	320.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table H1:Occupational Handler Short Term Risk From Azinphos-Methyl on Tree Nuts at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	22.0	< 1	0.009	36	0.026
Wettable Powders for Aerial application (2)	3.7	43		1.50 lb ai per acre	350 Acres per day	28.0	< 1	0.32	1	0.020
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		2.00 lb ai per acre	350 Acres per day	29	< 1	0.012	27	0.019
Wettable Powders for Aerial application (4)	3.7	43		2.00 lb ai per acre	350 Acres per day	37	< 1	0.43	1	0.015
Mixing/Loading Liquids for Airblast application (5)	2.9	1.2		1.50 lb ai per acre	20 Acres per day	1.2	< 1	0.00051	620	0.45
Mixing/Loading Liquids for Airblast application (6)	2.9	1.2		1.50 lb ai per acre	40 Acres per day	2.5	< 1	0.0010	310	0.23
Wettable Powders for Airblast application (7)	3.7	43		1.50 lb ai per acre	20 Acres per day	1.6	< 1	0.018	17	0.35
Wettable Powders for Airblast application (8)	3.7	43		1.50 lb ai per acre	40 Acres per day	3.2	< 1	0.037	9	0.17
Mixing/Loading Liquids for Airblast application (9)	2.9	1.2		2.00 lb ai per acre	20 Acres per day	1.7	< 1	0.00069	470	0.34
Mixing/Loading Liquids for Airblast application (10)	2.9	1.2		2.00 lb ai per acre	40 Acres per day	3.3	< 1	0.0014	230	0.17
Wettable Powders for Airblast application (11)	3.7	43		2.00 lb ai per acre	20 Acres per day	2.1	< 1	0.025	13	0.26
Wettable Powders for Airblast application (12)	3.7	43		2.00 lb ai per acre	40 Acres per day	4.2	< 1	0.049	7	0.13
Wettable Powders for Aerial application (13)	3.7	43	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	46.0	< 1	0.54	1	0.012
Wettable Powders for Airblast application (14)	3.7	43		2.50 lb ai per acre	20 Acres per day	2.6	< 1	0.031	10	0.21
Wettable Powders for Airblast application (15)	3.7	43		2.50 lb ai per acre	40 Acres per day	5.3	< 1	0.061	5	0.10
Applicator										
Sprays for Aerial application (16)	No Data	No Data	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (17)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (18)	0.36	4.5		2.00 lb ai per acre	20 Acres per day	0.21	3	0.0026	120	2.7
Sprays for Airblast application (19)	0.36	4.5		2.00 lb ai per acre	40 Acres per day	0.41	1	0.0051	62	1.3
Sprays for Aerial application (20)	No Data	No Data	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (21)	0.36	4.5		2.50 lb ai per acre	20 Acres per day	0.26	2	0.0032	100	2.1
Sprays for Airblast application (22)	0.36	4.5		2.50 lb ai per acre	40 Acres per day	0.51	1	0.0064	50	1.1
Flagger										
Flagging for Sprays application (23)	0.011	0.35	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.083	7	0.0026	120	6.4
Flagging for Sprays application (24)	0.011	0.35		2.00 lb ai per acre	350 Acres per day	0.11	5	0.0035	91	4.8
Flagging for Sprays application (25)	0.011	0.35	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.14	4	0.0044	73	3.9

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table H2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Tree Nuts at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	9.1	< 1	0.009	36	0.017
Wettable Powders for Aerial application (2)	3.7	43		1.50 lb ai per acre	350 Acres per day	12.0	< 1	0.32	1	0.013
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		2.00 lb ai per acre	350 Acres per day	12.0	< 1	0.012	27	0.012
Wettable Powders for Aerial application (4)	3.7	43		2.00 lb ai per acre	350 Acres per day	15.0	< 1	0.43	1	0.0096
Mixing/Loading Liquids for Airblast application (5)	2.9	1.2		1.50 lb ai per acre	20 Acres per day	0.52	< 1	0.00051	620	0.29
Mixing/Loading Liquids for Airblast application (6)	2.9	1.2		1.50 lb ai per acre	40 Acres per day	1.0	< 1	0.0010	310	0.14
Wettable Powders for Airblast application (7)	3.7	43		1.50 lb ai per acre	20 Acres per day	0.66	< 1	0.018	17	0.22
Wettable Powders for Airblast application (8)	3.7	43		1.50 lb ai per acre	40 Acres per day	1.3	< 1	0.037	9	0.11
Mixing/Loading Liquids for Airblast application (9)	2.9	1.2		2.00 lb ai per acre	20 Acres per day	0.69	< 1	0.00069	470	0.22
Mixing/Loading Liquids for Airblast application (10)	2.9	1.2		2.00 lb ai per acre	40 Acres per day	1.4	< 1	0.0014	230	0.11
Wettable Powders for Airblast application (11)	3.7	43		2.00 lb ai per acre	20 Acres per day	0.88	< 1	0.025	13	0.17
Wettable Powders for Airblast application (12)	3.7	43		2.00 lb ai per acre	40 Acres per day	1.8	< 1	0.049	7	0.084
Wettable Powders for Aerial application (13)	3.7	43	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	19.0	< 1	0.54	1	0.0077
Wettable Powders for Airblast application (14)	3.7	43		2.50 lb ai per acre	20 Acres per day	1.1	< 1	0.031	10	0.13
Wettable Powders for Airblast application (15)	3.7	43		2.50 lb ai per acre	40 Acres per day	2.2	< 1	0.061	5	0.067
Applicator										
Sprays for Aerial application (16)	No Data	No Data	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (17)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (18)	0.36	4.5		2.00 lb ai per acre	20 Acres per day	0.086	2	0.0026	120	1.7
Sprays for Airblast application (19)	0.36	4.5		2.00 lb ai per acre	40 Acres per day	0.17	1	0.0051	62	0.86
Sprays for Aerial application (20)	No Data	No Data	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (21)	0.36	4.5		2.50 lb ai per acre	20 Acres per day	0.11	1	0.0032	100	1.4
Sprays for Airblast application (22)	0.36	4.5		2.50 lb ai per acre	40 Acres per day	0.21	1	0.0064	50	0.69
Flagger										
Flagging for Sprays application (23)	0.011	0.35	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.034	4	0.0026	120	4.2
Flagging for Sprays application (24)	0.011	0.35		2.00 lb ai per acre	350 Acres per day	0.046	3	0.0035	91	3.2
Flagging for Sprays application (25)	0.011	0.35	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.057	3	0.0044	73	2.5

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table H3:Occupational Handler Short Term Risk From Azinphos-Methyl on Tree Nuts at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOEc	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.17	3	0.0018	180	3.2
Wettable Powders for Aerial application (2)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	1.3	< 1	0.065	5	0.40
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		2.00 lb ai per acre	350 Acres per day	0.23	2	0.0024	130	2.4
Wettable Powders for Aerial application (4)	0.17	8.6		2.00 lb ai per acre	350 Acres per day	1.7	< 1	0.086	4	0.30
Mixing/Loading Liquids for Airblast application (5)	0.023	0.24		1.50 lb ai per acre	20 Acres per day	0.0099	57	0.00010	3100	56.0
Mixing/Loading Liquids for Airblast application (6)	0.023	0.24		1.50 lb ai per acre	40 Acres per day	0.020	28	0.00021	1600	28.0
Wettable Powders for Airblast application (7)	0.17	8.6		1.50 lb ai per acre	20 Acres per day	0.073	8	0.0037	87	7.1
Wettable Powders for Airblast application (8)	0.17	8.6		1.50 lb ai per acre	40 Acres per day	0.15	4	0.0074	43	3.5
Mixing/Loading Liquids for Airblast application (9)	0.023	0.24		2.00 lb ai per acre	20 Acres per day	0.013	43	0.00014	2300	42.0
Mixing/Loading Liquids for Airblast application (10)	0.023	0.24		2.00 lb ai per acre	40 Acres per day	0.026	21	0.00027	1200	21.0
Wettable Powders for Airblast application (11)	0.17	8.6		2.00 lb ai per acre	20 Acres per day	0.097	6	0.0049	65	5.3
Wettable Powders for Airblast application (12)	0.17	8.6		2.00 lb ai per acre	40 Acres per day	0.19	3	0.0098	33	2.6
Wettable Powders for Aerial application (13)	0.17	8.6	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	2.1	< 1	0.11	3	0.24
Wettable Powders for Airblast application (14)	0.17	8.6		2.50 lb ai per acre	20 Acres per day	0.12	5	0.0061	52	4.2
Wettable Powders for Airblast application (15)	0.17	8.6		2.50 lb ai per acre	40 Acres per day	0.24	2	0.012	26	2.1
Applicator										
Sprays for Aerial application (16)	No Data	No Data	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (17)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (18)	0.24	0.9		2.00 lb ai per acre	20 Acres per day	0.14	4	0.00051	620	4.1
Sprays for Airblast application (19)	0.24	0.9		2.00 lb ai per acre	40 Acres per day	0.27	2	0.0010	310	2.0
Sprays for Aerial application (20)	No Data	No Data	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (21)	0.24	0.9		2.50 lb ai per acre	20 Acres per day	0.17	3	0.00064	500	3.2
Sprays for Airblast application (22)	0.24	0.9		2.50 lb ai per acre	40 Acres per day	0.34	2	0.0013	250	1.6
Flagger										
Flagging for Sprays application (23)	0.01	0.07	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.075	7	0.00053	610	7.4
Flagging for Sprays application (24)	0.01	0.07		2.00 lb ai per acre	350 Acres per day	0.1	6	0.0007	460	5.5
Flagging for Sprays application (25)	0.01	0.07	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.13	4	0.00088	370	4.4

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.

Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table H4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Tree Nuts at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOEc	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.072	2	0.0018	180	2.1
Wettable Powders for Aerial application (2)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	0.53	< 1	0.065	5	0.27
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		2.00 lb ai per acre	350 Acres per day	0.096	2	0.0024	130	1.5
Wettable Powders for Aerial application (4)	0.17	8.6		2.00 lb ai per acre	350 Acres per day	0.71	< 1	0.086	4	0.20
Mixing/Loading Liquids for Airblast application (5)	0.023	0.24		1.50 lb ai per acre	20 Acres per day	0.0041	36	0.00010	3100	36.0
Mixing/Loading Liquids for Airblast application (6)	0.023	0.24		1.50 lb ai per acre	40 Acres per day	0.0082	18	0.00021	1600	18.0
Wettable Powders for Airblast application (7)	0.17	8.6		1.50 lb ai per acre	20 Acres per day	0.030	5	0.0037	87	4.7
Wettable Powders for Airblast application (8)	0.17	8.6		1.50 lb ai per acre	40 Acres per day	0.061	2	0.0074	43	2.3
Mixing/Loading Liquids for Airblast application (9)	0.023	0.24		2.00 lb ai per acre	20 Acres per day	0.0055	27	0.00014	2300	27.0
Mixing/Loading Liquids for Airblast application (10)	0.023	0.24		2.00 lb ai per acre	40 Acres per day	0.011	14	0.00027	1200	14.0
Wettable Powders for Airblast application (11)	0.17	8.6		2.00 lb ai per acre	20 Acres per day	0.041	4	0.0049	65	3.5
Wettable Powders for Airblast application (12)	0.17	8.6		2.00 lb ai per acre	40 Acres per day	0.081	2	0.0098	33	1.8
Wettable Powders for Aerial application (13)	0.17	8.6	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.89	< 1	0.11	3	0.16
Wettable Powders for Airblast application (14)	0.17	8.6		2.50 lb ai per acre	20 Acres per day	0.051	3	0.0061	52	2.8
Wettable Powders for Airblast application (15)	0.17	8.6		2.50 lb ai per acre	40 Acres per day	0.10	1	0.012	26	1.4
Applicator										
Sprays for Aerial application (16)	No Data	No Data	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (17)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (18)	0.24	0.9		2.00 lb ai per acre	20 Acres per day	0.057	3	0.00051	620	2.6
Sprays for Airblast application (19)	0.24	0.9		2.00 lb ai per acre	40 Acres per day	0.11	1	0.0010	310	1.3
Sprays for Aerial application (20)	No Data	No Data	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (21)	0.24	0.9		2.50 lb ai per acre	20 Acres per day	0.071	2	0.00064	500	2.1
Sprays for Airblast application (22)	0.24	0.9		2.50 lb ai per acre	40 Acres per day	0.14	1	0.0013	250	1.0
Flagger										
Flagging for Sprays application (23)	0.01	0.07	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.031	5	0.00053	610	4.8
Flagging for Sprays application (24)	0.01	0.07		2.00 lb ai per acre	350 Acres per day	0.042	4	0.0007	460	3.6
Flagging for Sprays application (25)	0.01	0.07	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.052	3	0.00088	370	2.9

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table H5:Occupational Handler Short Term Risk From Azinphos-Methyl on Tree Nuts at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.13	4	0.0009	360	4.3
Wettable Powders for Aerial application (2)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.98	1	0.032	10	0.54
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		2.00 lb ai per acre	350 Acres per day	0.17	3	0.0012	270	3.3
Wettable Powders for Aerial application (4)	0.13	4.3		2.00 lb ai per acre	350 Acres per day	1.3	< 1	0.043	7	0.41
Mixing/Loading Liquids for Airblast application (5)	0.017	0.12		1.50 lb ai per acre	20 Acres per day	0.0073	77	0.000051	6200	76.0
Mixing/Loading Liquids for Airblast application (6)	0.017	0.12		1.50 lb ai per acre	40 Acres per day	0.015	38	0.00010	3100	38.0
Wettable Powders for Airblast application (7)	0.13	4.3		1.50 lb ai per acre	20 Acres per day	0.056	10	0.0018	170	9.5
Wettable Powders for Airblast application (8)	0.13	4.3		1.50 lb ai per acre	40 Acres per day	0.11	5	0.0037	87	4.8
Mixing/Loading Liquids for Airblast application (9)	0.017	0.12		2.00 lb ai per acre	20 Acres per day	0.0097	58	0.000069	4700	57.0
Mixing/Loading Liquids for Airblast application (10)	0.017	0.12		2.00 lb ai per acre	40 Acres per day	0.019	29	0.00014	2300	28.0
Wettable Powders for Airblast application (11)	0.13	4.3		2.00 lb ai per acre	20 Acres per day	0.074	8	0.0025	130	7.1
Wettable Powders for Airblast application (12)	0.13	4.3		2.00 lb ai per acre	40 Acres per day	0.15	4	0.0049	65	3.6
Wettable Powders for Aerial application (13)	0.13	4.3	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	1.6	< 1	0.054	6	0.33
Wettable Powders for Airblast application (14)	0.13	4.3		2.50 lb ai per acre	20 Acres per day	0.093	6	0.0031	100	5.7
Wettable Powders for Airblast application (15)	0.13	4.3		2.50 lb ai per acre	40 Acres per day	0.19	3	0.0061	52	2.9
Applicator										
Sprays for Aerial application (16)	No Data	No Data	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (17)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (18)	0.22	0.45		2.00 lb ai per acre	20 Acres per day	0.13	4	0.00026	1200	4.4
Sprays for Airblast application (19)	0.22	0.45		2.00 lb ai per acre	40 Acres per day	0.25	2	0.00051	620	2.2
Sprays for Aerial application (20)	No Data	No Data	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (21)	0.22	0.45		2.50 lb ai per acre	20 Acres per day	0.16	4	0.00032	1000	3.6
Sprays for Airblast application (22)	0.22	0.45		2.50 lb ai per acre	40 Acres per day	0.31	2	0.00064	500	1.8
Flagger										
Flagging for Sprays application (23)	0.01	0.035	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.075	7	0.00026	1200	7.4
Flagging for Sprays application (24)	0.01	0.035		2.00 lb ai per acre	350 Acres per day	0.1	6	0.00035	910	5.6
Flagging for Sprays application (25)	0.01	0.035	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.13	4	0.00044	730	4.5

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table H6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Tree Nuts at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.053	3	0.0009	360	2.8
Wettable Powders for Aerial application (2)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.41	< 1	0.032	10	0.36
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		2.00 lb ai per acre	350 Acres per day	0.071	2	0.0012	270	2.1
Wettable Powders for Aerial application (4)	0.13	4.3		2.00 lb ai per acre	350 Acres per day	0.54	< 1	0.043	7	0.27
Mixing/Loading Liquids for Airblast application (5)	0.017	0.12		1.50 lb ai per acre	20 Acres per day	0.0030	49	0.000051	6200	49.0
Mixing/Loading Liquids for Airblast application (6)	0.017	0.12		1.50 lb ai per acre	40 Acres per day	0.0061	25	0.00010	3100	24.0
Wettable Powders for Airblast application (7)	0.13	4.3		1.50 lb ai per acre	20 Acres per day	0.023	6	0.0018	170	6.2
Wettable Powders for Airblast application (8)	0.13	4.3		1.50 lb ai per acre	40 Acres per day	0.046	3	0.0037	87	3.1
Mixing/Loading Liquids for Airblast application (9)	0.017	0.12		2.00 lb ai per acre	20 Acres per day	0.0041	37	0.000069	4700	37.0
Mixing/Loading Liquids for Airblast application (10)	0.017	0.12		2.00 lb ai per acre	40 Acres per day	0.0081	19	0.00014	2300	18.0
Wettable Powders for Airblast application (11)	0.13	4.3		2.00 lb ai per acre	20 Acres per day	0.031	5	0.0025	130	4.7
Wettable Powders for Airblast application (12)	0.13	4.3		2.00 lb ai per acre	40 Acres per day	0.062	2	0.0049	65	2.3
Wettable Powders for Aerial application (13)	0.13	4.3	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.68	< 1	0.054	6	0.21
Wettable Powders for Airblast application (14)	0.13	4.3		2.50 lb ai per acre	20 Acres per day	0.039	4	0.0031	100	3.7
Wettable Powders for Airblast application (15)	0.13	4.3		2.50 lb ai per acre	40 Acres per day	0.077	2	0.0061	52	1.9
Applicator										
Sprays for Aerial application (16)	No Data	No Data	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (17)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (18)	0.22	0.45		2.00 lb ai per acre	20 Acres per day	0.052	3	0.00026	1200	2.9
Sprays for Airblast application (19)	0.22	0.45		2.00 lb ai per acre	40 Acres per day	0.10	1	0.00051	620	1.4
Sprays for Aerial application (20)	No Data	No Data	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (21)	0.22	0.45		2.50 lb ai per acre	20 Acres per day	0.066	2	0.00032	1000	2.3
Sprays for Airblast application (22)	0.22	0.45		2.50 lb ai per acre	40 Acres per day	0.13	1	0.00064	500	1.1
Flagger										
Flagging for Sprays application (23)	0.01	0.035	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.031	5	0.00026	1200	4.8
Flagging for Sprays application (24)	0.01	0.035		2.00 lb ai per acre	350 Acres per day	0.042	4	0.00035	910	3.6
Flagging for Sprays application (25)	0.01	0.035	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.052	3	0.00044	730	2.9

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table H7:Occupational Handler Short Term Risk From Azinphos-Methyl on Tree Nuts at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.065	9	0.00062	510	8.5
Wettable Powders for Aerial application (2)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.074	8	0.0018	180	7.3
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		2.00 lb ai per acre	350 Acres per day	0.086	7	0.00083	390	6.4
Wettable Powders for Aerial application (4)	0.0098	0.24		2.00 lb ai per acre	350 Acres per day	0.098	6	0.0024	130	5.5
Mixing/Loading Liquids for Airblast application (5)	0.0086	0.083		1.50 lb ai per acre	20 Acres per day	0.0037	150	0.000036	9000	150.0
Mixing/Loading Liquids for Airblast application (6)	0.0086	0.083		1.50 lb ai per acre	40 Acres per day	0.0074	76	0.000071	4500	75.0
Wettable Powders for Airblast application (7)	0.0098	0.24		1.50 lb ai per acre	20 Acres per day	0.0042	130	0.00010	3100	130.0
Wettable Powders for Airblast application (8)	0.0098	0.24		1.50 lb ai per acre	40 Acres per day	0.0084	67	0.00021	1600	64.0
Mixing/Loading Liquids for Airblast application (9)	0.0086	0.083		2.00 lb ai per acre	20 Acres per day	0.0049	110	0.000047	6700	110.0
Mixing/Loading Liquids for Airblast application (10)	0.0086	0.083		2.00 lb ai per acre	40 Acres per day	0.0098	57	0.000095	3400	56.0
Wettable Powders for Airblast application (11)	0.0098	0.24		2.00 lb ai per acre	20 Acres per day	0.0056	100	0.00014	2300	96.0
Wettable Powders for Airblast application (12)	0.0098	0.24		2.00 lb ai per acre	40 Acres per day	0.011	50	0.00027	1200	48.0
Wettable Powders for Aerial application (13)	0.0098	0.24	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.12	5	0.003	110	4.4
Wettable Powders for Airblast application (14)	0.0098	0.24		2.50 lb ai per acre	20 Acres per day	0.007	80	0.00017	1900	77.0
Wettable Powders for Airblast application (15)	0.0098	0.24		2.50 lb ai per acre	40 Acres per day	0.014	40	0.00034	930	38.0
Applicator										
Sprays for Aerial application (16)	0.005	0.068	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.038	15	0.00051	630	15.0
Sprays for Aerial application (17)	0.005	0.068		2.00 lb ai per acre	350 Acres per day	0.05	11	0.00068	470	11.0
Sprays for Airblast application (18)	0.019	0.45		2.00 lb ai per acre	20 Acres per day	0.011	52	0.00026	1200	50.0
Sprays for Airblast application (19)	0.019	0.45		2.00 lb ai per acre	40 Acres per day	0.022	26	0.00051	620	25.0
Sprays for Aerial application (20)	0.005	0.068	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.063	9	0.00085	380	8.8
Sprays for Airblast application (21)	0.019	0.45		2.50 lb ai per acre	20 Acres per day	0.014	41	0.00032	1000	40.0
Sprays for Airblast application (22)	0.019	0.45		2.50 lb ai per acre	40 Acres per day	0.027	21	0.00064	500	20.0
Flagger										
Flagging for Sprays application (23)	0.00022	0.007	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.0017	340	0.000053	6100	320.0
Flagging for Sprays application (24)	0.00022	0.007		2.00 lb ai per acre	350 Acres per day	0.0022	260	0.00007	4600	240.0
Flagging for Sprays application (25)	0.00022	0.007	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.0028	200	0.000088	3700	190.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table H8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Tree Nuts at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.027	6	0.00062	510	5.5
Wettable Powders for Aerial application (2)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.031	5	0.0018	180	4.8
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		2.00 lb ai per acre	350 Acres per day	0.036	4	0.00083	390	4.1
Wettable Powders for Aerial application (4)	0.0098	0.24		2.00 lb ai per acre	350 Acres per day	0.041	4	0.0024	130	3.6
Mixing/Loading Liquids for Airblast application (5)	0.0086	0.083		1.50 lb ai per acre	20 Acres per day	0.0015	98	0.000036	9000	97.0
Mixing/Loading Liquids for Airblast application (6)	0.0086	0.083		1.50 lb ai per acre	40 Acres per day	0.0031	49	0.000071	4500	48.0
Wettable Powders for Airblast application (7)	0.021	0.24		1.50 lb ai per acre	20 Acres per day	0.0038	40	0.00010	3100	39.0
Wettable Powders for Airblast application (8)	0.021	0.24		1.50 lb ai per acre	40 Acres per day	0.0075	20	0.00021	1600	20.0
Mixing/Loading Liquids for Airblast application (9)	0.0086	0.083		2.00 lb ai per acre	20 Acres per day	0.0020	73	0.000047	6700	72.0
Mixing/Loading Liquids for Airblast application (10)	0.0086	0.083		2.00 lb ai per acre	40 Acres per day	0.0041	37	0.000095	3400	36.0
Wettable Powders for Airblast application (11)	0.0098	0.24		2.00 lb ai per acre	20 Acres per day	0.023	64	0.00014	2300	63.0
Wettable Powders for Airblast application (12)	0.0098	0.24		2.00 lb ai per acre	40 Acres per day	0.0047	32	0.00027	1200	31.0
Wettable Powders for Aerial application (13)	0.0098	0.24	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.051	3	0.003	110	2.9
Wettable Powders for Airblast application (14)	0.0098	0.24		2.50 lb ai per acre	20 Acres per day	0.0029	51	0.00017	1900	50.0
Wettable Powders for Airblast application (15)	0.0098	0.24		2.50 lb ai per acre	40 Acres per day	0.0058	26	0.00034	930	25.0
Applicator										
Sprays for Aerial application (16)	0.005	0.068	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.016	10	0.00051	630	9.4
Sprays for Aerial application (17)	0.005	0.068		2.00 lb ai per acre	350 Acres per day	0.021	7	0.00068	470	7.1
Sprays for Airblast application (18)	0.019	0.45		2.00 lb ai per acre	20 Acres per day	0.0045	33	0.00026	1200	32.0
Sprays for Airblast application (19)	0.019	0.45		2.00 lb ai per acre	40 Acres per day	0.0091	17	0.00051	620	16.0
Sprays for Aerial application (20)	0.005	0.068	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.026	6	0.00085	380	5.7
Sprays for Airblast application (21)	0.019	0.45		2.50 lb ai per acre	20 Acres per day	0.0057	27	0.00032	1000	26.0
Sprays for Airblast application (22)	0.019	0.45		2.50 lb ai per acre	40 Acres per day	0.011	13	0.00064	500	13.0
Flagger										
Flagging for Sprays application (23)	0.00022	0.007	Tree Nuts (Almond, Filbert, Pecan, Walnut)	1.50 lb ai per acre	350 Acres per day	0.00069	220	0.000053	6100	210.0
Flagging for Sprays application (24)	0.00022	0.007		2.00 lb ai per acre	350 Acres per day	0.00092	160	0.00007	4600	160.0
Flagging for Sprays application (25)	0.00022	0.007	Tree Nut (Pistachios)	2.50 lb ai per acre	350 Acres per day	0.0011	130	0.000088	3700	130.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .

Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table I1:Occupational Handler Short Term Risk From Azinphos-Methyl on Non-Grass Animal Feed at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	12.0	< 1	0.0051	62	0.045
Wettable Powders for Aerial application (2)	3.7	43		0.25 lb ai per acre	1200 Acres per day	16.0	< 1	0.18	2	0.035
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.75 lb ai per acre	1200 Acres per day	37.0	< 1	0.015	21	0.015
Wettable Powders for Aerial application (4)	3.7	43		0.75 lb ai per acre	1200 Acres per day	48.0	< 1	0.55	1	0.012
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.25 lb ai per acre	200 Acres per day	2.1	< 1	0.00086	370	0.27
Wettable Powders for Groundboom application (6)	3.7	43		0.25 lb ai per acre	200 Acres per day	2.6	< 1	0.031	10	0.21
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.75 lb ai per acre	200 Acres per day	6.2	< 1	0.0026	120	0.090
Wettable Powders for Groundboom application (8)	3.7	43		0.75 lb ai per acre	200 Acres per day	7.9	< 1	0.092	3	0.069
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	3.6	< 1	0.0015	210	0.15
Mixing/Loading Liquids for Chemigation application (10)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Chemigation application (11)	3.7	43		0.25 lb ai per acre	350 Acres per day	4.6	< 1	0.054	6	0.12
Wettable Powders for Chemigation application (12)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Aerial application (13)	2.9	1.2	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	3.6	< 1	0.0015	210	0.15
Wettable Powders for Aerial application (14)	3.7	43		0.25 lb ai per acre	350 Acres per day	4.6	< 1	0.054	6	0.12
Mixing/Loading Liquids for Aerial application (15)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Aerial application (16)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Groundboom application (17)	2.9	1.2		0.25 lb ai per acre	80 Acres per day	0.83	1	0.00034	930	0.68
Wettable Powders for Groundboom application (18)	3.7	43		0.25 lb ai per acre	80 Acres per day	1.1	1	0.012	26	0.52
Mixing/Loading Liquids for Groundboom application (19)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	2.5	< 1	0.0010	310	0.23
Wettable Powders for Groundboom application (20)	3.7	43		0.75 lb ai per acre	80 Acres per day	3.2	< 1	0.037	9	0.17
Applicator										
Sprays for Aerial application (21)	No Data	No Data	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (22)	No Data	No Data		0.75 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (23)	0.014	0.74		0.25 lb ai per acre	200 Acres per day	0.01	56	0.00053	610	51.0
Sprays for Groundboom application (24)	0.014	0.74		0.75 lb ai per acre	200 Acres per day	0.03	19	0.0016	200	17.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Aerial application (25)	No Data	No Data	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (26)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (27)	0.014	0.74		0.25 lb ai per acre	80 Acres per day	0.004	140	0.00021	1500	13.0
Sprays for Groundboom application (28)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00063	510	43.0
Flagger										
Flagging for Sprays application (29)	0.011	0.35	Non-Grass Animal Feed (Alfalfa,Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.014	41	0.00044	730	39.0
Flagging for Sprays application (30)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.041	14	0.0013	240	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table I2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Non- Grass Animal Feed at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	5.2	< 1	0.0051	62	0.029
Wettable Powders for Aerial application (2)	3.7	43		0.25 lb ai per acre	1200 Acres per day	6.6	< 1	0.18	2	0.022
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.75 lb ai per acre	1200 Acres per day	16.0	< 1	0.015	21	0.0096
Wettable Powders for Aerial application (4)	3.7	43		0.75 lb ai per acre	1200 Acres per day	20.0	< 1	0.55	1	0.0075
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.25 lb ai per acre	200 Acres per day	0.86	< 1	0.00086	370	0.17
Wettable Powders for Groundboom application (6)	3.7	43		0.25 lb ai per acre	200 Acres per day	1.1	< 1	0.031	10	0.13
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.75 lb ai per acre	200 Acres per day	2.6	< 1	0.0026	120	0.058
Wettable Powders for Groundboom application (8)	3.7	43		0.75 lb ai per acre	200 Acres per day	3.3	< 1	0.092	3	0.045
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot)	0.25 lb ai per acre	350 Acres per day	1.5	< 1	0.0015	210	0.099
Mixing/Loading Liquids for Chemigation application (10)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Chemigation application (11)	3.7	43		0.25 lb ai per acre	350 Acres per day	1.9	< 1	0.054	6	0.077
Wettable Powders for Chemigation application (12)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Aerial application (13)	2.9	1.2	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	1.5	< 1	0.0015	210	0.099
Wettable Powders for Aerial application (14)	3.7	43		0.25 lb ai per acre	350 Acres per day	1.9	< 1	0.054	6	0.077
Mixing/Loading Liquids for Aerial application (15)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Aerial application (16)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Groundboom application (17)	2.9	1.2		0.25 lb ai per acre	80 Acres per day	0.35	< 1	0.00034	930	0.43
Wettable Powders for Groundboom application (18)	3.7	43		0.25 lb ai per acre	80 Acres per day	0.44	< 1	0.012	26	0.34
Mixing/Loading Liquids for Groundboom application (19)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	1.0	< 1	0.0010	310	0.14
Wettable Powders for Groundboom application (20)	3.7	43		0.75 lb ai per acre	80 Acres per day	1.3	< 1	0.037	9	0.11
Applicator										
Sprays for Aerial application (21)	No Data	No Data	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (22)	No Data	No Data		0.75 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (23)	0.014	0.74		0.25 lb ai per acre	200 Acres per day	0.0042	36	0.00053	610	34.0
Sprays for Groundboom application (24)	0.014	0.74		0.75 lb ai per acre	200 Acres per day	0.013	12	0.0016	200	11.0
Sprays for Aerial application (25)	No Data	No Data	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (26)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (27)	0.014	0.74		0.25 lb ai per acre	80 Acres per day	0.0017	90	0.00021	1500	85.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (28)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00063	510	28.0
Flagger										
Flagging for Sprays application (29)	0.011	0.35	Non-Grass Animal Feed(AlfalfaClover , Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0057	26	0.00044	730	25.0
Flagging for Sprays application (30)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.017	9	0.0013	240	8.4

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table I3:Occupational Handler Short Term Risk From Azinphos-Methyl on Non-Grass Animal Feed at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	0.099	6	0.0010	310	5.6
Wettable Powders for Aerial application (2)	0.17	8.6		0.25 lb ai per acre	1200 Acres per day	0.73	1	0.037	9	0.71
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.75 lb ai per acre	1200 Acres per day	0.30	2	0.0031	100	1.9
Wettable Powders for Aerial application (4)	0.17	8.6		0.75 lb ai per acre	1200 Acres per day	2.2	< 1	0.11	3	0.24
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.25 lb ai per acre	200 Acres per day	0.016	34	0.00017	1900	33.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.25 lb ai per acre	200 Acres per day	0.12	5	0.0061	52	4.2
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.75 lb ai per acre	200 Acres per day	0.049	11	0.00051	620	11.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.75 lb ai per acre	200 Acres per day	0.36	2	0.018	17	1.4
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.029	19	0.0003	1100	19.0
Mixing/Loading Liquids for Chemigation application (10)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Chemigation application (11)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.21	3	0.011	30	2.4
Wettable Powders for Chemigation application (12)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Aerial application (13)	0.023	0.24	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.029	19	0.0003	1100	19.0
Wettable Powders for Aerial application (14)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.21	3	0.011	30	2.4
Mixing/Loading Liquids for Aerial application (15)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Aerial application (16)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Groundboom application (17)	0.023	0.24		0.25 lb ai per acre	80 Acres per day	0.0066	85	0.000069	4700	84.0
Wettable Powders for Groundboom application (18)	0.17	8.6		0.25 lb ai per acre	80 Acres per day	0.049	12	0.0025	130	11.0
Mixing/Loading Liquids for Groundboom application (19)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.020	28	0.00021	1600	28.0
Wettable Powders for Groundboom application (20)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.15	4	0.0074	43	3.5
Applicator										
Sprays for Aerial application (21)	No Data	No Data	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (22)	No Data	No Data		0.75 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (23)	0.014	0.15		0.25 lb ai per acre	200 Acres per day	0.01	56	0.00011	3000	55.0
Sprays for Groundboom application (24)	0.014	0.15		0.75 lb ai per acre	200 Acres per day	0.03	19	0.00032	1000	18.0
Sprays for Aerial application (25)	No Data	No Data	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (26)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (27)	0.014	0.15		0.25 lb ai per acre	80 Acres per day	0.004	140	0.000043	7500	140.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (28)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00013	2500	46.0
Flagger										
Flagging for Sprays application (29)	0.01	0.07	Non-Grass Animal Feed (Alfalfa,Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.013	45	0.000088	3700	44.0
Flagging for Sprays application (30)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00026	1200	15.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table I4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Non-Grass Animal Feed at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	0.041	4	0.0010	310	3.6
Wettable Powders for Aerial application (2)	0.17	8.6		0.25 lb ai per acre	1200 Acres per day	0.30	< 1	0.037	9	0.47
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.75 lb ai per acre	1200 Acres per day	0.12	1	0.0031	100	1.2
Wettable Powders for Aerial application (4)	0.17	8.6		0.75 lb ai per acre	1200 Acres per day	0.91	< 1	0.11	3	0.16
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.25 lb ai per acre	200 Acres per day	0.0069	22	0.00017	1900	22.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.25 lb ai per acre	200 Acres per day	0.051	3	0.0061	52	2.8
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.75 lb ai per acre	200 Acres per day	0.021	7	0.00051	620	7.2
Wettable Powders for Groundboom application (8)	0.17	8.6		0.75 lb ai per acre	200 Acres per day	0.15	1	0.018	17	0.93
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.012	13	0.0003	1100	12.0
Mixing/Loading Liquids for Chemigation application (10)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Chemigation application (11)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.089	2	0.011	30	1.6
Wettable Powders for Chemigation application (12)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Aerial application (13)	0.023	0.24	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.012	13	0.0003	1100	12.0
Wettable Powders for Aerial application (14)	0.17	8.6		0.25 lb ai per acre	350 Acres per day	0.089	2	0.011	30	1.6
Mixing/Loading Liquids for Aerial application (15)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Aerial application (16)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Groundboom application (17)	0.023	0.24		0.25 lb ai per acre	80 Acres per day	0.0027	55	0.000069	4700	54.0
Wettable Powders for Groundboom application (18)	0.17	8.6		0.25 lb ai per acre	80 Acres per day	0.020	7	0.0025	130	7.0
Mixing/Loading Liquids for Groundboom application (19)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.0082	18	0.00021	1600	18.0
Wettable Powders for Groundboom application (20)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.061	2	0.0074	43	2.3
Applicator										
Sprays for Aerial application (21)	No Data	No Data	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (22)	No Data	No Data		0.75 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (23)	0.014	0.15		0.25 lb ai per acre	200 Acres per day	0.0042	36	0.00011	3000	36.0
Sprays for Groundboom application (24)	0.014	0.15		0.75 lb ai per acre	200 Acres per day	0.013	12	0.00032	1000	12.0
Sprays for Aerial application (25)	No Data	No Data	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (26)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (27)	0.014	0.15		0.25 lb ai per acre	80 Acres per day	0.0017	90	0.000043	7500	89.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (28)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00013	2500	30.0
Flagger										
Flagging for Sprays application (29)	0.01	0.07	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0052	29	0.000088	3700	29.0
Flagging for Sprays application (30)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00026	1200	9.5

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table I5:Occupational Handler Short Term Risk From Azinphos-Methyl on Non-Grass Animal Feed at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	0.073	8	0.00051	620	7.6
Wettable Powders for Aerial application (2)	0.13	4.3		0.25 lb ai per acre	1200 Acres per day	0.56	1	0.018	17	0.95
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.75 lb ai per acre	1200 Acres per day	0.22	3	0.0015	210	2.5
Wettable Powders for Aerial application (4)	0.13	4.3		0.75 lb ai per acre	1200 Acres per day	1.7	< 1	0.055	6	0.32
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.25 lb ai per acre	200 Acres per day	0.012	46	0.000086	3700	46.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.25 lb ai per acre	200 Acres per day	0.093	6	0.0031	100	5.7
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.75 lb ai per acre	200 Acres per day	0.036	15	0.00026	1200	15.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.75 lb ai per acre	200 Acres per day	0.28	2	0.0092	35	1.9
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot trefoil	0.25 lb ai per acre	350 Acres per day	0.021	26	0.00015	2100	26.0
Mixing/Loading Liquids for Chemigation application (10)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Chemigation application (11)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.16	3	0.0054	60	3.3
Wettable Powders for Chemigation application (12)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Aerial application (13)	0.017	0.12	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.021	26	0.00015	2100	26.0
Wettable Powders for Aerial application (14)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.16	3	0.0054	60	3.3
Mixing/Loading Liquids for Aerial application (15)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Aerial application (16)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Groundboom application (17)	0.017	0.12		0.25 lb ai per acre	80 Acres per day	0.0049	120	0.000034	9300	110.0
Wettable Powders for Groundboom application (18)	0.13	4.3		0.25 lb ai per acre	80 Acres per day	0.037	15	0.0012	260	14.0
Mixing/Loading Liquids for Groundboom application (19)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.015	38	0.00010	3100	38.0
Wettable Powders for Groundboom application (20)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.11	5	0.0037	87	4.8
Applicator										
Sprays for Aerial application (21)	No Data	No Data	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (22)	No Data	No Data		0.75 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (23)	0.011	0.074		0.25 lb ai per acre	200 Acres per day	0.0079	71	0.000053	6100	70.0
Sprays for Groundboom application (24)	0.011	0.074		0.75 lb ai per acre	200 Acres per day	0.024	24	0.00016	2000	23.0
Sprays for Aerial application (25)	No Data	No Data	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Aerial application (26)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (27)	0.011	0.074		0.25 lb ai per acre	80 Acres per day	0.0031	180	0.000021	15000	18.0
Sprays for Groundboom application (28)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0094	59	0.000063	5000	59.0
Flagger										
Flagging for Sprays application (29)	0.01	0.035	Non-Grass Animal Feed (Alfalfa,Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.013	45	0.000044	7300	45.0
Flagging for Sprays application (30)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00013	2400	15.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table I6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Non-Grass Animal Feed at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	0.030	5	0.00051	620	4.9
Wettable Powders for Aerial application (2)	0.13	4.3		0.25 lb ai per acre	1200 Acres per day	0.23	1	0.018	17	0.62
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.75 lb ai per acre	1200 Acres per day	0.091	2	0.0015	210	1.6
Wettable Powders for Aerial application (4)	0.13	4.3		0.75 lb ai per acre	1200 Acres per day	0.70	< 1	0.055	6	0.21
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.25 lb ai per acre	200 Acres per day	0.0051	30	0.000086	3700	29.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.25 lb ai per acre	200 Acres per day	0.039	4	0.0031	100	3.7
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.75 lb ai per acre	200 Acres per day	0.015	10	0.00026	1200	9.8
Wettable Powders for Groundboom application (8)	0.13	4.3		0.75 lb ai per acre	200 Acres per day	0.12	1	0.0092	35	1.2
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0089	17	0.00015	2100	17.0
Mixing/Loading Liquids for Chemigation application (10)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Chemigation application (11)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.068	2	0.0054	60	2.1
Wettable Powders for Chemigation application (12)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Aerial application (13)	0.017	0.12	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0089	17	0.00015	2100	17.0
Wettable Powders for Aerial application (14)	0.13	4.3		0.25 lb ai per acre	350 Acres per day	0.068	2	0.0054	60	2.1
Mixing/Loading Liquids for Aerial application (15)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Aerial application (16)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Groundboom application (17)	0.017	0.12		0.25 lb ai per acre	80 Acres per day	0.0020	74	0.000034	9300	73.0
Wettable Powders for Groundboom application (18)	0.13	4.3		0.25 lb ai per acre	80 Acres per day	0.015	10	0.0012	260	9.3
Mixing/Loading Liquids for Groundboom application (19)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.0061	25	0.00010	3100	24.0
Wettable Powders for Groundboom application (20)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.046	3	0.0037	87	3.1
Applicator										
Sprays for Aerial application (21)	No Data	No Data	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (22)	No Data	No Data		0.75 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (23)	0.011	0.074		0.25 lb ai per acre	200 Acres per day	0.0033	46	0.000053	6100	45.0
Sprays for Groundboom application (24)	0.011	0.074		0.75 lb ai per acre	200 Acres per day	0.0098	15	0.00016	2000	15.0
Sprays for Aerial application (25)	No Data	No Data	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Aerial application (26)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (27)	0.011	0.074		0.25 lb ai per acre	80 Acres per day	0.0013	110	0.000021	15000	110.0
Sprays for Groundboom application (28)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0039	38	0.000063	5000	38.0
Flagger										
Flagging for Sprays application (29)	0.01	0.035	Non-Grass Animal Feed (Alfalfa,Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0052	29	0.000044	7300	29.0
Flagging for Sprays application (30)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00013	2400	9.6

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table I7:Occupational Handler Short Term Risk From Azinphos-Methyl on Non-Grass Animal Feed at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	0.037	15	0.00036	900	15.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.25 lb ai per acre	1200 Acres per day	0.042	13	0.0010	310	13.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.75 lb ai per acre	1200 Acres per day	0.11	5	0.0011	300	5.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.75 lb ai per acre	1200 Acres per day	0.13	4	0.0031	100	4.3
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.25 lb ai per acre	200 Acres per day	0.0061	91	0.000059	5400	90.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.25 lb ai per acre	200 Acres per day	0.007	80	0.00017	1900	77.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.75 lb ai per acre	200 Acres per day	0.018	30	0.00018	1800	30.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.75 lb ai per acre	200 Acres per day	0.021	27	0.00051	620	26.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.011	52	0.00010	3100	51.0
Mixing/Loading Liquids for Chemigation application (10)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Chemigation application (11)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.012	46	0.0003	1100	44.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Aerial application (13)	0.0086	0.083	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.011	52	0.00010	3100	51.0
Wettable Powders for Aerial application (14)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.012	46	0.0003	1100	44.0
Mixing/Loading Liquids for Aerial application (15)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Aerial application (16)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Groundboom application (17)	0.0086	0.083		0.25 lb ai per acre	80 Acres per day	0.0025	230	0.000024	13000	220.0
Wettable Powders for Groundboom application (18)	0.0098	0.24		0.25 lb ai per acre	80 Acres per day	0.0028	200	0.000069	4700	190.0
Mixing/Loading Liquids for Groundboom application (19)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0074	76	0.000071	4500	75.0
Wettable Powders for Groundboom application (20)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0084	67	0.00021	1600	64.0
Applicator										
Sprays for Aerial application (21)	0.005	0.068	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	0.021	26	0.00029	1100	26.0
Sprays for Aerial application (22)	0.005	0.068		0.75 lb ai per acre	1200 Acres per day	0.064	9	0.00087	370	8.5
Sprays for Groundboom application (23)	0.005	0.043		0.25 lb ai per acre	200 Acres per day	0.0036	160	0.000031	10000	150.0
Sprays for Groundboom application (24)	0.005	0.043		0.75 lb ai per acre	200 Acres per day	0.011	52	0.000092	3500	51.0
Sprays for Aerial application (25)	0.005	0.068	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0063	90	0.000085	3800	88.0
Sprays for Aerial application (26)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.019	30	0.00026	1300	29.0
Sprays for Groundboom application (27)	0.005	0.043		0.25 lb ai per acre	80 Acres per day	0.0014	390	0.000012	26000	390.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (28)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0043	130	0.000037	8700	130.0
Flagger										
Flagging for Sprays application (29)	0.00022	0.007	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.00028	2000	0.0000088	37000	2000.0
Flagging for Sprays application (30)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00083	680	0.000026	12000	640.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table I8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Non- Grass Animal Feed at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	0.015	10	0.00036	900	9.7
Wettable Powders for Aerial application (2)	0.0098	0.24		0.25 lb ai per acre	1200 Acres per day	0.018	9	0.0010	310	8.3
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.75 lb ai per acre	1200 Acres per day	0.046	3	0.0011	300	3.2
Wettable Powders for Aerial application (4)	0.0098	0.24		0.75 lb ai per acre	1200 Acres per day	0.053	3	0.0031	100	2.8
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.25 lb ai per acre	200 Acres per day	0.0026	59	0.000059	5400	58.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.25 lb ai per acre	200 Acres per day	0.0029	51	0.00017	1900	50.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.75 lb ai per acre	200 Acres per day	0.0077	20	0.00018	1800	19.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.75 lb ai per acre	200 Acres per day	0.0088	17	0.00051	620	17.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083	Non-Grass Animal Feed (Alfalfa,clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0045	33	0.00010	3100	33.0
Mixing/Loading Liquids for Chemigation application (10)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Chemigation application (11)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.0051	29	0.0003	1100	29.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Aerial application (13)	0.0086	0.083	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0045	33	0.00010	3100	33.0
Wettable Powders for Aerial application (14)	0.0098	0.24		0.25 lb ai per acre	350 Acres per day	0.0051	29	0.0003	1100	29.0
Mixing/Loading Liquids for Aerial application (15)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Aerial application (16)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Groundboom application (17)	0.0086	0.083		0.25 lb ai per acre	80 Acres per day	0.0010	150	0.000024	13000	140.0
Wettable Powders for Groundboom application (18)	0.0098	0.24		0.25 lb ai per acre	80 Acres per day	0.0012	130	0.000069	4700	130.0
Mixing/Loading Liquids for Groundboom application (19)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0031	49	0.000071	4500	48.0
Wettable Powders for Groundboom application (20)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0035	43	0.00021	1600	42.0
Applicator										
Sprays for Aerial application (21)	0.005	0.068	Non-Grass Animal Feed (Alfalfa)	0.25 lb ai per acre	1200 Acres per day	0.0089	17	0.00029	1100	17.0
Sprays for Aerial application (22)	0.005	0.068		0.75 lb ai per acre	1200 Acres per day	0.027	6	0.00087	370	5.5
Sprays for Groundboom application (23)	0.005	0.043		0.25 lb ai per acre	200 Acres per day	0.0015	100	0.000031	10000	100.0
Sprays for Groundboom application (24)	0.005	0.043		0.75 lb ai per acre	200 Acres per day	0.0045	34	0.000092	3500	33.0
Sprays for Aerial application (25)	0.005	0.068	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.0026	58	0.000085	3800	57.0
Sprays for Aerial application (26)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.0078	19	0.00026	1300	19.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (27)	0.005	0.043		0.25 lb ai per acre	80 Acres per day	0.00060	250	0.000012	26000	250.0
Sprays for Groundboom application (28)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0018	84	0.000037	8700	83.0
Flagger										
Flagging for Sprays application (29)	0.00022	0.007	Non-Grass Animal Feed (Clover, Birdsfoot trefoil)	0.25 lb ai per acre	350 Acres per day	0.00011	1300	0.0000088	37000	1300.0
Flagging for Sprays application (30)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00034	440	0.000026	12000	420.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table J1:Occupational Handler Short Term Risk From Azinphos-Methyl on Oil Seed at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	6.2	< 1	0.0026	120	0.090
Wettable Powders for Aerial application (2)	3.7	43		0.13 lb ai per acre	1200 Acres per day	7.9	< 1	0.092	3	0.069
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.50 lb ai per acre	1200 Acres per day	25.0	< 1	0.010	31	0.023
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	1200 Acres per day	32.0	< 1	0.37	1	0.017
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.13 lb ai per acre	200 Acres per day	1.0	1	0.00043	750	0.54
Wettable Powders for Groundboom application (6)	3.7	43		0.13 lb ai per acre	200 Acres per day	1.3	< 1	0.015	21	0.42
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.50 lb ai per acre	200 Acres per day	4.1	< 1	0.0017	190	0.14
Wettable Powders for Groundboom application (8)	3.7	43		0.50 lb ai per acre	200 Acres per day	5.3	< 1	0.061	5	0.10
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.014	0.74		0.13 lb ai per acre	200 Acres per day	0.005	110	0.00026	1200	100.0
Sprays for Groundboom application (12)	0.014	0.74		0.50 lb ai per acre	200 Acres per day	0.02	28	0.0011	300	26.0
Flagger										
Flagging for Sprays application (13)	0.011	0.35	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	0.0069	81	0.00022	1500	77.0
Flagging for Sprays application (14)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table J2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Oil Seed at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	2.6	< 1	0.0026	120	0.058
Wettable Powders for Aerial application (2)	3.7	43		0.13 lb ai per acre	1200 Acres per day	3.3	< 1	0.092	3	0.045
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.50 lb ai per acre	1200 Acres per day	10.0	< 1	0.010	31	0.014
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	1200 Acres per day	13.0	< 1	0.37	1	0.011
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.13 lb ai per acre	200 Acres per day	0.43	< 1	0.00043	750	0.35
Wettable Powders for Groundboom application (6)	3.7	43		0.13 lb ai per acre	200 Acres per day	0.55	< 1	0.015	21	0.27
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.50 lb ai per acre	200 Acres per day	1.7	< 1	0.0017	190	0.087
Wettable Powders for Groundboom application (8)	3.7	43		0.50 lb ai per acre	200 Acres per day	2.2	< 1	0.061	5	0.067
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.014	0.74		0.13 lb ai per acre	200 Acres per day	0.0021	72	0.00026	1200	68.0
Sprays for Groundboom application (12)	0.014	0.74		0.50 lb ai per acre	200 Acres per day	0.0083	18	0.0011	300	17.0
Flagger										
Flagging for Sprays application (13)	0.011	0.35	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	0.0029	52	0.00022	1500	51.0
Flagging for Sprays application (14)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table J3:Occupational Handler Short Term Risk From Azinphos-Methyl on Oil Seed at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[b]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	0.049	11	0.00051	620	11.0
Wettable Powders for Aerial application (2)	0.17	8.6		0.13 lb ai per acre	1200 Acres per day	0.36	2	0.018	17	1.4
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.50 lb ai per acre	1200 Acres per day	0.20	3	0.0021	160	2.8
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	1200 Acres per day	1.5	< 1	0.074	4	0.35
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.13 lb ai per acre	200 Acres per day	0.0082	68	0.000086	3700	67.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.13 lb ai per acre	200 Acres per day	0.061	9	0.0031	100	8.5
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.50 lb ai per acre	200 Acres per day	0.033	17	0.00034	930	17.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.50 lb ai per acre	200 Acres per day	0.24	2	0.012	26	2.1
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.014	0.15		0.13 lb ai per acre	200 Acres per day	0.005	110	0.000054	6000	110.0
Sprays for Groundboom application (12)	0.014	0.15		0.50 lb ai per acre	200 Acres per day	0.02	28	0.00021	1500	27.0
Flagger										
Flagging for Sprays application (13)	0.01	0.07	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	0.0063	90	0.000044	7300	89.0
Flagging for Sprays application (14)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table J4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[b]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	0.021	7	0.00051	620	7.2
Wettable Powders for Aerial application (2)	0.17	8.6		0.13 lb ai per acre	1200 Acres per day	0.15	1	0.018	17	0.93
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.50 lb ai per acre	1200 Acres per day	0.082	2	0.0021	160	1.8
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	1200 Acres per day	0.61	< 1	0.074	4	0.23
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.13 lb ai per acre	200 Acres per day	0.0034	44	0.000086	3700	43.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.13 lb ai per acre	200 Acres per day	0.025	6	0.0031	100	5.6
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.50 lb ai per acre	200 Acres per day	0.014	11	0.00034	930	11.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.50 lb ai per acre	200 Acres per day	0.10	1	0.012	26	1.4
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.014	0.15		0.13 lb ai per acre	200 Acres per day	0.0021	72	0.000054	6000	71.0
Sprays for Groundboom application (12)	0.014	0.15		0.50 lb ai per acre	200 Acres per day	0.0083	18	0.00021	1500	18.0
Flagger										
Flagging for Sprays application (13)	0.01	0.07	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	0.0026	58	0.000044	7300	57.0
Flagging for Sprays application (14)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table J5:Occupational Handler Short Term Risk From Azinphos-Methyl on Oil Seed at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	0.036	15	0.00026	1200	15.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.13 lb ai per acre	1200 Acres per day	0.28	2	0.0092	35	1.9
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.50 lb ai per acre	1200 Acres per day	0.15	4	0.0010	310	3.8
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	1200 Acres per day	1.1	1	0.037	9	0.48
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.13 lb ai per acre	200 Acres per day	0.0061	92	0.000043	7500	91.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.13 lb ai per acre	200 Acres per day	0.046	12	0.0015	210	11.0
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.50 lb ai per acre	200 Acres per day	0.024	23	0.00017	1900	23.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.50 lb ai per acre	200 Acres per day	0.19	3	0.0061	52	2.9
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.011	0.074		0.13 lb ai per acre	200 Acres per day	0.0039	140	0.000026	12000	140.0
Sprays for Groundboom application (12)	0.011	0.074		0.50 lb ai per acre	200 Acres per day	0.016	36	0.00011	3000	35.0
Flagger										
Flagging for Sprays application (13)	0.01	0.035	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	0.0063	90	0.000022	15000	89.0
Flagging for Sprays application (14)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table J6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Oil Seed at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	0.015	10	0.00026	1200	9.8
Wettable Powders for Aerial application (2)	0.13	4.3		0.13 lb ai per acre	1200 Acres per day	0.12	1	0.0092	35	1.2
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.50 lb ai per acre	1200 Acres per day	0.061	2	0.0010	310	2.4
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	1200 Acres per day	0.46	< 1	0.037	9	0.31
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.13 lb ai per acre	200 Acres per day	0.0025	59	0.000043	7500	59.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.13 lb ai per acre	200 Acres per day	0.019	8	0.0015	210	7.5
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.50 lb ai per acre	200 Acres per day	0.010	15	0.00017	1900	15.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.50 lb ai per acre	200 Acres per day	0.077	2	0.0061	52	1.9
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		0.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (11)	0.011	0.074		0.13 lb ai per acre	200 Acres per day	0.0016	92	0.000026	12000	91.0
Sprays for Groundboom application (12)	0.011	0.074		0.50 lb ai per acre	200 Acres per day	0.0066	23	0.00011	3000	23.0
Flagger										
Flagging for Sprays application (13)	0.01	0.035	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	0.0026	58	0.000022	15000	57.0
Flagging for Sprays application (14)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table J7:Occupational Handler Short Term Risk From Azinphos-Methyl on Oil Seed at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	0.018	30	0.00018	1800	30.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.13 lb ai per acre	1200 Acres per day	0.021	27	0.00051	620	26.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.50 lb ai per acre	1200 Acres per day	0.074	8	0.00071	450	7.5
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	1200 Acres per day	0.084	7	0.0021	160	6.4
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.13 lb ai per acre	200 Acres per day	0.0031	180	0.000030	11000	180.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.13 lb ai per acre	200 Acres per day	0.0035	160	0.000086	3700	150.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.50 lb ai per acre	200 Acres per day	0.012	46	0.00012	2700	45.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.50 lb ai per acre	200 Acres per day	0.014	40	0.00034	930	38.0
Applicator										
Sprays for Aerial application (9)	0.005	0.068	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	0.011	52	0.00015	2200	51.0
Sprays for Aerial application (10)	0.005	0.068		0.50 lb ai per acre	1200 Acres per day	0.043	13	0.00058	550	13.0
Sprays for Groundboom application (11)	0.005	0.043		0.13 lb ai per acre	200 Acres per day	0.0018	310	0.000015	21000	310.0
Sprays for Groundboom application (12)	0.005	0.043		0.50 lb ai per acre	200 Acres per day	0.0071	78	0.000061	5200	77.0
Flagger										
Flagging for Sprays application (13)	0.00022	0.007	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	0.00014	4100	0.0000044	73000	3900.0
Flagging for Sprays application (14)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table J8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Oil Seed at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	0.0077	20	0.00018	1800	19.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.13 lb ai per acre	1200 Acres per day	0.0088	17	0.00051	620	17.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.50 lb ai per acre	1200 Acres per day	0.031	5	0.00071	450	4.8
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	1200 Acres per day	0.035	4	0.0021	160	4.2
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.13 lb ai per acre	200 Acres per day	0.0013	120	0.000030	11000	120.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.13 lb ai per acre	200 Acres per day	0.0015	100	0.000086	3700	100
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.50 lb ai per acre	200 Acres per day	0.0051	29	0.00012	2700	29.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.50 lb ai per acre	200 Acres per day	0.0058	26	0.00034	930	25.0
Applicator										
Sprays for Aerial application (9)	0.005	0.068	Oil Seed (Cotton)	0.13 lb ai per acre	1200 Acres per day	0.0045	34	0.00015	2200	33.0
Sprays for Aerial application (10)	0.005	0.068		0.50 lb ai per acre	1200 Acres per day	0.018	8	0.00058	550	8.3
Sprays for Groundboom application (11)	0.005	0.043		0.13 lb ai per acre	200 Acres per day	0.00074	200	0.000015	21000	200.0
Sprays for Groundboom application (12)	0.005	0.043		0.50 lb ai per acre	200 Acres per day	0.0030	50	0.000061	5200	50.0
Flagger										
Flagging for Sprays application (13)	0.00022	0.007	Oil Seed (Cotton)	0.13 lb ai per acre	350 Acres per day	0.000057	2600	0.0000044	73000	2500.0
Flagging for Sprays application (14)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table K1:Occupational Handler Short Term Risk From Azinphos-Methyl on Brassica Leafy Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	1.8	< 1	0.00075	430	0.31
Wettable Powders for Aerial application (2)	3.7	43		0.13 lb ai per acre	350 Acres per day	2.3	< 1	0.027	12	0.24
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Aerial application (4)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.13 lb ai per acre	80 Acres per day	0.41	1	0.00017	1900	1.4
Wettable Powders for Groundboom application (6)	3.7	43		0.13 lb ai per acre	80 Acres per day	0.53	1	0.0061	52	1.0
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	2.5	< 1	0.0010	310	0.23
Wettable Powders for Groundboom application (8)	3.7	43		0.75 lb ai per acre	80 Acres per day	3.2	< 1	0.037	9	0.17
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2		0.13 lb ai per acre	350 Acres per day	1.8	< 1	0.00075	430	0.31
Wettable Powders for Chemigation application (10)	3.7	43		0.13 lb ai per acre	350 Acres per day	2.3	< 1	0.027	12	0.24
Mixing/Loading Liquids for Chemigation application (11)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Chemigation application (12)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.74		0.13 lb ai per acre	80 Acres per day	0.002	280	0.00011	3000	260.0
Sprays for Groundboom application (16)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00063	510	43.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0069	81	0.00022	1500	77.0
Flagging for Sprays application (18)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.041	14	0.0013	240	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table K2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Brassica Leafy Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.76	< 1	0.00075	430	0.20
Wettable Powders for Aerial application (2)	3.7	43		0.13 lb ai per acre	350 Acres per day	0.96	< 1	0.027	12	0.15
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Aerial application (4)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.13 lb ai per acre	80 Acres per day	0.17	1	0.00017	1900	0.87
Wettable Powders for Groundboom application (6)	3.7	43		0.13 lb ai per acre	80 Acres per day	0.22	1	0.0061	52	0.67
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	1.0	< 1	0.0010	310	0.14
Wettable Powders for Groundboom application (8)	3.7	43		0.75 lb ai per acre	80 Acres per day	1.3	< 1	0.037	9	0.11
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2		0.13 lb ai per acre	350 Acres per day	0.76	< 1	0.00075	430	0.20
Wettable Powders for Chemigation application (10)	3.7	43		0.13 lb ai per acre	350 Acres per day	0.96	< 1	0.027	12	0.15
Mixing/Loading Liquids for Chemigation application (11)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Chemigation application (12)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.74		0.13 lb ai per acre	80 Acres per day	0.00083	180	0.00011	3000	170.0
Sprays for Groundboom application (16)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00063	510	28.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0029	52	0.00022	1500	51.0
Flagging for Sprays application (18)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.017	9	0.0013	240	8.4

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table K3:Occupational Handler Short Term Risk From Azinphos-Methyl on Brassica Leafy Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.014	39	0.00015	2100	38.0
Wettable Powders for Aerial application (2)	0.17	8.6		0.13 lb ai per acre	350 Acres per day	0.11	5	0.0054	60	4.8
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Aerial application (4)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.13 lb ai per acre	80 Acres per day	0.0033	170	0.000034	9300	170.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.13 lb ai per acre	80 Acres per day	0.024	23	0.0012	260	21.0
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.020	28	0.00021	1600	28.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.15	4	0.0074	43	3.5
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24		0.13 lb ai per acre	350 Acres per day	0.014	39	0.00015	2100	38.0
Wettable Powders for Chemigation application (10)	0.17	8.6		0.13 lb ai per acre	350 Acres per day	0.11	5	0.0054	60	4.8
Mixing/Loading Liquids for Chemigation application (11)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Chemigation application (12)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.15		0.13 lb ai per acre	80 Acres per day	0.002	280	0.000021	15000	270.0
Sprays for Groundboom application (16)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00013	2500	46.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0063	90	0.000044	7300	89.0
Flagging for Sprays application (18)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00026	1200	15.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table K4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Brassica Leafy Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0060	25	0.00015	2100	25.0
Wettable Powders for Aerial application (2)	0.17	8.6		0.13 lb ai per acre	350 Acres per day	0.044	3	0.0054	60	3.2
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Aerial application (4)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.13 lb ai per acre	80 Acres per day	0.0014	110	0.000034	9300	110.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.13 lb ai per acre	80 Acres per day	0.010	15	0.0012	260	14.0
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.0082	18	0.00021	1600	18.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.061	2	0.0074	43	2.3
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24		0.13 lb ai per acre	350 Acres per day	0.0060	25	0.00015	2100	25.0
Wettable Powders for Chemigation application (10)	0.17	8.6		0.13 lb ai per acre	350 Acres per day	0.044	3	0.0054	60	3.2
Mixing/Loading Liquids for Chemigation application (11)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Chemigation application (12)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.15		0.13 lb ai per acre	80 Acres per day	0.00083	180	0.000021	15000	180.0
Sprays for Groundboom application (16)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00013	2500	30.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0026	58	0.000044	7300	57.0
Flagging for Sprays application (18)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00026	1200	9.5

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table K5:Occupational Handler Short Term Risk From Azinphos-Methyl on Brassica Leafy Vegetable at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.011	53	0.000075	4300	52.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.13 lb ai per acre	350 Acres per day	0.081	7	0.0027	120	6.5
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Aerial application (4)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.13 lb ai per acre	80 Acres per day	0.0024	230	0.000017	19000	230.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.13 lb ai per acre	80 Acres per day	0.019	30	0.00061	520	29.0
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.015	38	0.00010	3100	38.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.11	5	0.0037	87	4.8
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12		0.13 lb ai per acre	350 Acres per day	0.011	53	0.000075	4300	52.0
Wettable Powders for Chemigation application (10)	0.13	4.3		0.13 lb ai per acre	350 Acres per day	0.081	7	0.0027	120	6.5
Mixing/Loading Liquids for Chemigation application (11)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Chemigation application (12)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.011	0.074		0.13 lb ai per acre	80 Acres per day	0.0016	360	0.000011	30000	350.0
Sprays for Groundboom application (16)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0094	59	0.000063	5000	59.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0063	90	0.000022	15000	89.0
Flagging for Sprays application (18)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00013	2400	15.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table K6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Brassica Leafy Vegetable at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0044	34	0.000075	4300	34.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.13 lb ai per acre	350 Acres per day	0.034	4	0.0027	120	4.3
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Aerial application (4)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.13 lb ai per acre	80 Acres per day	0.0010	150	0.000017	19000	150.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.13 lb ai per acre	80 Acres per day	0.0077	19	0.00061	520	19.0
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.0061	25	0.00010	3100	24.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.046	3	0.0037	87	3.1
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12		0.13 lb ai per acre	350 Acres per day	0.0044	34	0.000075	4300	34.0
Wettable Powders for Chemigation application (10)	0.13	4.3		0.13 lb ai per acre	350 Acres per day	0.034	4	0.0027	120	4.3
Mixing/Loading Liquids for Chemigation application (11)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Chemigation application (12)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.011	0.074		0.13 lb ai per acre	80 Acres per day	0.00066	230	0.000011	30000	230.0
Sprays for Groundboom application (16)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0039	38	0.000063	5000	38.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035		0.13 lb ai per acre	350 Acres per day	0.0026	58	0.000022	15000	57.0
Flagging for Sprays application (18)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00013	2400	9.6

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table K7:Occupational Handler Short Term Risk From Azinphos-Methyl on Brassica Leafy Vegetable at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0054	100	0.000052	6200	100.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.13 lb ai per acre	350 Acres per day	0.0061	91	0.00015	2100	88.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.13 lb ai per acre	80 Acres per day	0.0012	460	0.000012	27000	450.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.13 lb ai per acre	80 Acres per day	0.0014	400	0.000034	9300	380.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0074	76	0.000071	4500	75.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0084	67	0.00021	1600	64.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083		0.13 lb ai per acre	350 Acres per day	0.0054	100	0.000052	6200	100.0
Wettable Powders for Chemigation application (10)	0.0098	0.24		0.13 lb ai per acre	350 Acres per day	0.0061	91	0.00015	2100	88.0
Mixing/Loading Liquids for Chemigation application (11)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0031	180	0.000043	7500	180.0
Sprays for Aerial application (14)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.019	30	0.00026	1300	29.0
Sprays for Groundboom application (15)	0.005	0.043		0.13 lb ai per acre	80 Acres per day	0.00071	780	0.0000061	52000	770.0
Sprays for Groundboom application (16)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0043	130	0.000037	8700	13.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.00014	4100	0.0000044	73000	3900.0
Flagging for Sprays application (18)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00083	680	0.000026	12000	640.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table K8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Brassica Leafy Vegetable at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0022	67	0.000052	6200	66.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.13 lb ai per acre	350 Acres per day	0.0026	59	0.00015	2100	57.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.13 lb ai per acre	80 Acres per day	0.00051	290	0.000012	27000	290.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.13 lb ai per acre	80 Acres per day	0.00058	260	0.000034	9300	250.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0031	49	0.000071	4500	48.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0035	43	0.00021	1600	42.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083		0.13 lb ai per acre	350 Acres per day	0.0022	67	0.000052	6200	66.0
Wettable Powders for Chemigation application (10)	0.0098	0.24		0.13 lb ai per acre	350 Acres per day	0.0026	59	0.00015	2100	57.0
Mixing/Loading Liquids for Chemigation application (11)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.0013	120	0.000043	7500	110.0
Sprays for Aerial application (14)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.0078	19	0.00026	1300	19.0
Sprays for Groundboom application (15)	0.005	0.043		0.13 lb ai per acre	80 Acres per day	0.00030	500	0.0000061	52000	500.0
Sprays for Groundboom application (16)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0018	84	0.000037	8700	83.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Brassica Leafy Vegetables (Broccoli, Brussels Sprouts, Cabbage, Cauliflower)	0.13 lb ai per acre	350 Acres per day	0.000057	2600	0.0000044	73000	2500.0
Flagging for Sprays application (18)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00034	440	0.000026	12000	420.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table L1:Occupational Handler Short Term Risk From Azinphos-Methyl on Fruiting Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	5.4	< 1	0.0023	140	0.10
Wettable Powders for Aerial application (2)	3.7	43		0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Aerial application (5)	2.9	1.2	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	22.0	< 1	0.009	36	0.026
Wettable Powders for Aerial application (6)	3.7	43		1.50 lb ai per acre	350 Acres per day	28.0	< 1	0.32	1	0.020
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	1.2	< 1	0.00051	620	0.45
Wettable Powders for Groundboom application (8)	3.7	43		0.38 lb ai per acre	80 Acres per day	1.6	< 1	0.018	17	0.35
Mixing/Loading Liquids for Groundboom application (9)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Groundboom application (10)	3.7	43		0.50 lb ai per acre	80 Acres per day	2.1	< 1	0.025	13	0.26
Mixing/Loading Liquids for Groundboom application (11)	2.9	1.2	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	5.0	< 1	0.0021	160	0.11
Wettable Powders for Groundboom application (12)	3.7	43		1.50 lb ai per acre	80 Acres per day	6.3	< 1	0.074	4	0.087
Mixing/Loading Liquids for Chemigation application (13)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	5.4	< 1	0.0023	140	0.10
Wettable Powders for Chemigation application (14)	3.7	43		0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Mixing/Loading Liquids for Chemigation application (15)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Chemigation application (16)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Chemigation application (17)	2.9	1.2	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	22.0	< 1	0.009	36	0.026
Wettable Powders for Chemigation application (18)	3.7	43		1.50 lb ai per acre	350 Acres per day	28.0	< 1	0.32	1	0.020
Applicator										
Sprays for Aerial application (19)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (20)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (21)	No Data	No Data	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (22)	0.014	0.74	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.006	93	0.00032	1000	85.0
Sprays for Groundboom application (23)	0.014	0.74	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.008	70	0.00042	760	64.0
Sprays for Groundboom application (24)	0.014	0.74	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.024	23	0.0013	250	21.0
Flagger										

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Flagging for Sprays application (25)	0.011	0.35	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.021	27	0.00066	490	26.0
Flagging for Sprays application (26)	0.011	0.35	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0
Flagging for Sprays application (27)	0.011	0.35	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.083	7	0.0026	120	6.4

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table L2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Fruiting Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	2.3	< 1	0.0023	140	0.066
Wettable Powders for Aerial application (2)	3.7	43		0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Aerial application (5)	2.9	1.2	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	9.1	< 1	0.009	36	0.017
Wettable Powders for Aerial application (6)	3.7	43		1.50 lb ai per acre	350 Acres per day	12.0	< 1	0.32	1	0.013
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.52	< 1	0.00051	620	0.29
Wettable Powders for Groundboom application (8)	3.7	43		0.38 lb ai per acre	80 Acres per day	0.66	< 1	0.018	17	0.22
Mixing/Loading Liquids for Groundboom application (9)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Groundboom application (10)	3.7	43		0.50 lb ai per acre	80 Acres per day	0.88	< 1	0.025	13	0.17
Mixing/Loading Liquids for Groundboom application (11)	2.9	1.2	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	2.1	< 1	0.0021	160	0.072
Wettable Powders for Groundboom application (12)	3.7	43		1.50 lb ai per acre	80 Acres per day	2.6	< 1	0.074	4	0.056
Mixing/Loading Liquids for Chemigation application (13)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	2.3	< 1	0.0023	140	0.066
Wettable Powders for Chemigation application (14)	3.7	43		0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Mixing/Loading Liquids for Chemigation application (15)	2.9	1.2	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Chemigation application (16)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Chemigation application (17)	2.9	1.2	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	9.1	< 1	0.009	36	0.017
Wettable Powders for Chemigation application (18)	3.7	43		1.50 lb ai per acre	350 Acres per day	12.0	< 1	0.32	1	0.013
Applicator										
Sprays for Aerial application (19)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (20)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (21)	No Data	No Data	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (22)	0.014	0.74	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0025	60	0.00032	1000	57.0
Sprays for Groundboom application (23)	0.014	0.74	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0033	45	0.00042	760	42.0
Sprays for Groundboom application (24)	0.014	0.74	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.010	15	0.0013	250	14.0
Flagger										

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Flagging for Sprays application (25)	0.011	0.35	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.0086	17	0.00066	490	17.0
Flagging for Sprays application (26)	0.011	0.35	Fruiting Vegetable (Pepper, Eggplant	0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0
Flagging for Sprays application (27)	0.011	0.35	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.034	4	0.0026	120	4.2

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table L3:Occupational Handler Short Term Risk From Azinphos-Methyl on Fruiting Vegetable at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.043	13	0.00045	710	13.0
Wettable Powders for Aerial application (2)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Aerial application (5)	0.023	0.24	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.17	3	0.0018	180	3.2
Wettable Powders for Aerial application (6)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	1.3	< 1	0.065	5	0.40
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0099	57	0.00010	3100	56.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.073	8	0.0037	87	7.1
Mixing/Loading Liquids for Groundboom application (9)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Groundboom application (10)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.097	6	0.0049	65	5.3
Mixing/Loading Liquids for Groundboom application (11)	0.023	0.24	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.039	14	0.00041	780	14.0
Wettable Powders for Groundboom application (12)	0.17	8.6		1.50 lb ai per acre	80 Acres per day	0.29	2	0.015	22	1.8
Mixing/Loading Liquids for Chemigation application (13)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	0.043	13	0.00045	710	13.0
Wettable Powders for Chemigation application (14)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Mixing/Loading Liquids for Chemigation application (15)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Chemigation application (16)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Chemigation application (17)	0.023	0.24	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.17	3	0.0018	180	3.2
Wettable Powders for Chemigation application (18)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	1.3	< 1	0.065	5	0.40
Applicator										
Sprays for Aerial application (19)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (20)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (21)	No Data	No Data	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (22)	0.014	0.15	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.006	93	0.000064	5000	92.0
Sprays for Groundboom application (23)	0.014	0.15	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.008	70	0.000086	3700	69.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (24)	0.014	0.15	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.024	23	0.00026	1200	23.0
Flagger										
Flagging for Sprays application (25)	0.01	0.07	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.00013	2400	30.0
Flagging for Sprays application (26)	0.01	0.07	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0
Flagging for Sprays application (27)	0.01	0.07	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.075	7	0.00053	610	7.4

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table L4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Fruiting Vegetable at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.018	8	0.00045	710	8.2
Wettable Powders for Aerial application (2)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Aerial application (5)	0.023	0.24	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.072	2	0.0018	180	2.1
Wettable Powders for Aerial application (6)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	0.53	< 1	0.065	5	0.27
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0041	36	0.00010	3100	36.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.030	5	0.0037	87	4.7
Mixing/Loading Liquids for Groundboom application (9)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Groundboom application (10)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.041	4	0.0049	65	3.5
Mixing/Loading Liquids for Groundboom application (11)	0.023	0.24	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.016	9	0.00041	780	9.0
Wettable Powders for Groundboom application (12)	0.17	8.6		1.50 lb ai per acre	80 Acres per day	0.12	1	0.015	22	1.2
Mixing/Loading Liquids for Chemigation application (13)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	0.018	8	0.00045	710	8.2
Wettable Powders for Chemigation application (14)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Mixing/Loading Liquids for Chemigation application (15)	0.023	0.24	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Chemigation application (16)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Chemigation application (17)	0.023	0.24	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.072	2	0.0018	180	2.1
Wettable Powders for Chemigation application (18)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	0.53	< 1	0.065	5	0.27
Applicator										
Sprays for Aerial application (19)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (20)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (21)	No Data	No Data	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (22)	0.014	0.15	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0025	60	0.000064	5000	59.0
Sprays for Groundboom application (23)	0.014	0.15	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0033	45	0.000086	3700	44.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (24)	0.014	0.15	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.010	15	0.00026	1200	15.0
Flagger										
Flagging for Sprays application (25)	0.01	0.07	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.00013	2400	19.0
Flagging for Sprays application (26)	0.01	0.07	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0
Flagging for Sprays application (27)	0.01	0.07	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.031	5	0.00053	610	4.8

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table L5:Occupational Handler Short Term Risk From Azinphos-Methyl on Fruiting Vegetable at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.032	18	0.00023	1400	17.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Aerial application (5)	0.017	0.12	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.13	4	0.0009	360	4.3
Wettable Powders for Aerial application (6)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.98	1	0.032	10	0.54
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0073	77	0.000051	6200	76.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.056	10	0.0018	170	9.5
Mixing/Loading Liquids for Groundboom application (9)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Groundboom application (10)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.074	8	0.0025	130	7.1
Mixing/Loading Liquids for Groundboom application (11)	0.017	0.12	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.029	19	0.00021	1600	19.0
Wettable Powders for Groundboom application (12)	0.13	4.3		1.50 lb ai per acre	80 Acres per day	0.22	3	0.0074	43	2.4
Mixing/Loading Liquids for Chemigation application (13)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	0.032	18	0.00023	1400	17.0
Wettable Powders for Chemigation application (14)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Mixing/Loading Liquids for Chemigation application (15)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Chemigation application (16)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Chemigation application (17)	0.017	0.12	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.13	4	0.0009	360	4.3
Wettable Powders for Chemigation application (18)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.98	1	0.032	10	0.54
Applicator										
Sprays for Aerial application (19)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (20)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (21)	No Data	No Data	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (22)	0.011	0.074	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0047	120	0.000032	10000	120.0
Sprays for Groundboom application (23)	0.011	0.074	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0063	89	0.000042	7600	88.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (24)	0.011	0.074	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.019	30	0.00013	2500	29.0
Flagger										
Flagging for Sprays application (25)	0.01	0.035	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.000066	4900	30.0
Flagging for Sprays application (26)	0.01	0.035	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0
Flagging for Sprays application (27)	0.01	0.035	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.075	7	0.00026	1200	7.4

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table L6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Fruiting Vegetable at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.013	11	0.00023	1400	11.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Aerial application (5)	0.017	0.12	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.053	3	0.0009	360	2.8
Wettable Powders for Aerial application (6)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.41	< 1	0.032	10	0.36
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0030	49	0.000051	6200	49.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.023	6	0.0018	170	6.2
Mixing/Loading Liquids for Groundboom application (9)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Groundboom application (10)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.031	5	0.0025	130	4.7
Mixing/Loading Liquids for Groundboom application (11)	0.017	0.12	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.012	12	0.00021	1600	12.0
Wettable Powders for Groundboom application (12)	0.13	4.3		1.50 lb ai per acre	80 Acres per day	0.093	2	0.0074	43	1.6
Mixing/Loading Liquids for Chemigation application (13)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	0.013	11	0.00023	1400	11.0
Wettable Powders for Chemigation application (14)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Mixing/Loading Liquids for Chemigation application (15)	0.017	0.12	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Chemigation application (16)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Chemigation application (17)	0.017	0.12	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.053	3	0.0009	360	2.8
Wettable Powders for Chemigation application (18)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.41	< 1	0.032	10	0.36
Applicator										
Sprays for Aerial application (19)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (20)	No Data	No Data	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (21)	No Data	No Data	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (22)	0.011	0.074	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0020	76	0.000032	10000	76.0
Sprays for Groundboom application (23)	0.011	0.074	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0026	57	0.000042	7600	57.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (24)	0.011	0.074	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.0079	19	0.00013	2500	19.0
Flagger										
Flagging for Sprays application (25)	0.01	0.035	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.000066	4900	19.0
Flagging for Sprays application (26)	0.01	0.035	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0
Flagging for Sprays application (27)	0.01	0.035	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.031	5	0.00026	1200	4.8

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table L7:Occupational Handler Short Term Risk From Azinphos-Methyl on Fruiting Vegetable at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.016	35	0.00016	2100	34.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	2311	0.0006	530	22.0
Mixing/Loading Liquids for Aerial application (5)	0.0086	0.083	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.065	9	0.00062	510	8.5
Wettable Powders for Aerial application (6)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.074	8	0.0018	180	7.3
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0037	150	0.000036	9000	150.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0042	130	0.00010	3100	130.0
Mixing/Loading Liquids for Groundboom application (9)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0049	110	0.000047	6700	110.0
Wettable Powders for Groundboom application (10)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0056	100	0.00014	2300	96.0
Mixing/Loading Liquids for Groundboom application (11)	0.0086	0.083	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.015	38	0.00014	2200	37.0
Wettable Powders for Groundboom application (12)	0.0098	0.24		1.50 lb ai per acre	80 Acres per day	0.017	33	0.00041	780	32.0
Mixing/Loading Liquids for Chemigation application (13)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	0.016	35	0.00016	2100	34.0
Wettable Powders for Chemigation application (14)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Mixing/Loading Liquids for Chemigation application (15)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Chemigation application (16)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Mixing/Loading Liquids for Chemigation application (17)	0.0086	0.083	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.065	9	0.00062	510	8.5
Wettable Powders for Chemigation application (18)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.074	8	0.0018	180	7.3
Applicator										
Sprays for Aerial application (19)	0.005	0.068	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.0094	60	0.00013	2500	58.0
Sprays for Aerial application (20)	0.005	0.068	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.013	45	0.00017	1900	44.0
Sprays for Aerial application (21)	0.005	0.068	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.038	15	0.00051	630	15.0
Sprays for Groundboom application (22)	0.005	0.043	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0021	260	0.000018	17000	260.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (23)	0.005	0.043	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0029	200	0.000025	13000	190.0
Sprays for Groundboom application (24)	0.005	0.043	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.0086	65	0.000074	4300	64.0
Flagger										
Flagging for Sprays application (25)	0.00022	0.007	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.00041	1400	0.000013	24000	1300.0
Flagging for Sprays application (26)	0.00022	0.007	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0
Flagging for Sprays application (27)	0.00022	0.007	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.0017	340	0.000053	6100	320.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table L8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Fruiting Vegetable at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.0067	22	0.00016	2100	22.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Aerial application (5)	0.0086	0.083	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.027	6	0.00062	510	5.5
Wettable Powders for Aerial application (6)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.031	5	0.0018	180	4.8
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.0015	98	0.000036	9000	97.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0018	86	0.00010	3100	83.0
Mixing/Loading Liquids for Groundboom application (9)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	80 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Groundboom application (10)	0.0086	0.24		0.50 lb ai per acre	80 Acres per day	0.0023	64	0.00014	2300	63.0
Mixing/Loading Liquids for Groundboom application (11)	0.0086	0.083	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.0061	24	0.00014	2200	24.0
Wettable Powders for Groundboom application (12)	0.0098	0.24		1.50 lb ai per acre	80 Acres per day	0.0070	21	0.00041	780	21.0
Mixing/Loading Liquids for Chemigation application (13)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	350 Acres per day	0.0067	22	0.00016	2100	22.0
Wettable Powders for Chemigation application (14)	0.0086	0.24		0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Mixing/Loading Liquids for Chemigation application (15)	0.0086	0.083	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Chemigation application (16)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Chemigation application (17)	0.0086	0.083	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.027	6	0.00062	510	5.5
Wettable Powders for Chemigation application (18)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.031	5	0.0018	180	4.8
Applicator										
Sprays for Aerial application (19)	0.005	0.068	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.0039	38	0.00013	2500	38.0
Sprays for Aerial application (20)	0.005	0.068	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.0052	29	0.00017	1900	28.0
Sprays for Aerial application (21)	0.005	0.068	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.016	10	0.00051	630	9.4
Sprays for Groundboom application (22)	0.005	0.043	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.38 lb ai per acre	80 Acres per day	0.00089	170	0.000018	17000	170.0
Sprays for Groundboom application (23)	0.005	0.043	Fruiting Vegetable (Pepper, Eggplant,Tomato)	0.50 lb ai per acre	80 Acres per day	0.0012	130	0.000025	13000	120.0

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Sprays for Groundboom application (24)	0.005	0.043	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	80 Acres per day	0.0036	42	0.000074	4300	42.0
Flagger										
Flagging for Sprays application (25)	0.00022	0.007	Fruiting Vegetable (Pepper, Eggplant, Tomato)	0.38 lb ai per acre	350 Acres per day	0.00017	870	0.000013	24000	840.0
Flagging for Sprays application (26)	0.00022	0.007	Fruiting Vegetable (Pepper, Eggplant)	0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0
Flagging for Sprays application (27)	0.00022	0.007	Fruiting Vegetable (Tomato)	1.50 lb ai per acre	350 Acres per day	0.00069	220	0.000053	6100	210.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table M1:Occupational Handler Short Term Risk From Azinphos-Methyl on Cucurbit Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	5.4	< 1	0.0023	140	0.10
Wettable Powders for Aerial application (2)	3.7	43		0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.38 lb ai per acre	80 Acres per day	1.2	< 1	0.00051	620	0.45
Wettable Powders for Groundboom application (6)	3.7	43		0.38 lb ai per acre	80 Acres per day	1.6	< 1	0.018	17	0.35
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Groundboom application (8)	3.7	43		0.50 lb ai per acre	80 Acres per day	2.1	< 1	0.025	13	0.26
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2		0.38 lb ai per acre	350 Acres per day	5.4	< 1	0.0023	140	0.10
Wettable Powders for Chemigation application (10)	3.7	43		0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Mixing/Loading Liquids for Chemigation application (11)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Chemigation application (12)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.74		0.38 lb ai per acre	80 Acres per day	0.006	93	0.00032	1000	85.0
Sprays for Groundboom application (16)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.008	70	0.00042	760	64.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.021	27	0.00066	490	26.0
Flagging for Sprays application (18)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table M2:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Cucurbit Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	2.3	< 1	0.0023	140	0.066
Wettable Powders for Aerial application (2)	3.7	43		0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.38 lb ai per acre	80 Acres per day	0.52	< 1	0.00051	620	0.29
Wettable Powders for Groundboom application (6)	3.7	43		0.38 lb ai per acre	80 Acres per day	0.66	< 1	0.018	17	0.22
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Groundboom application (8)	3.7	43		0.50 lb ai per acre	80 Acres per day	0.88	< 1	0.025	13	0.17
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2		0.38 lb ai per acre	350 Acres per day	2.3	< 1	0.0023	140	0.066
Wettable Powders for Chemigation application (10)	3.7	43		0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Mixing/Loading Liquids for Chemigation application (11)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Chemigation application (12)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.74		0.38 lb ai per acre	80 Acres per day	0.0025	60	0.00032	1000	57.0
Sprays for Groundboom application (16)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.00042	760	42.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.0086	17	0.00066	490	17.0
Flagging for Sprays application (18)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table M3:Occupational Handler Short Term Risk From Azinphos-Methyl onCucurbit Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.043	13	0.00045	710	13.0
Wettable Powders for Aerial application (2)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.38 lb ai per acre	80 Acres per day	0.0099	57	0.00010	3100	56.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.073	8	0.0037	87	7.1
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.097	6	0.0049	65	5.3
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24		0.38 lb ai per acre	350 Acres per day	0.043	13	0.00045	710	13.0
Wettable Powders for Chemigation application (10)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Mixing/Loading Liquids for Chemigation application (11)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Chemigation application (12)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.15		0.38 lb ai per acre	80 Acres per day	0.006	93	0.000064	5000	92.0
Sprays for Groundboom application (16)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.008	70	0.000086	3700	69.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.00013	2400	30.0
Flagging for Sprays application (18)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table M4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Cucurbit Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.018	8	0.00045	710	8.2
Wettable Powders for Aerial application (2)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.38 lb ai per acre	80 Acres per day	0.0041	36	0.00010	3100	36.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.030	5	0.0037	87	4.7
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.041	4	0.0049	65	3.5
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24		0.38 lb ai per acre	350 Acres per day	0.018	8	0.00045	710	8.2
Wettable Powders for Chemigation application (10)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Mixing/Loading Liquids for Chemigation application (11)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Chemigation application (12)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.15		0.38 lb ai per acre	80 Acres per day	0.0025	60	0.000064	5000	59.0
Sprays for Groundboom application (16)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.000086	3700	44.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.00013	2400	19.0
Flagging for Sprays application (18)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table M5:Occupational Handler Short Term Risk From Azinphos-Methyl on Cucurbit Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[A]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.032	18	0.00023	1400	17.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.38 lb ai per acre	80 Acres per day	0.0073	77	0.000051	6200	76.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.056	10	0.0018	170	9.5
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.074	8	0.0025	130	7.1
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12		0.38 lb ai per acre	350 Acres per day	0.032	18	0.00023	1400	17.0
Wettable Powders for Chemigation application (10)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Mixing/Loading Liquids for Chemigation application (11)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Chemigation application (12)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.011	0.074		0.38 lb ai per acre	80 Acres per day	0.0047	120	0.000032	10000	120.0
Sprays for Groundboom application (16)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0063	89	0.000042	7600	88.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.000066	4900	30.0
Flagging for Sprays application (18)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table M6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Cucurbit Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[A]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.013	11	0.00023	1400	11.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.38 lb ai per acre	80 Acres per day	0.0030	49	0.000051	6200	49.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.023	6	0.0018	170	6.2
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.031	5	0.0025	130	4.7
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12		0.38 lb ai per acre	350 Acres per day	0.013	11	0.00023	1400	11.0
Wettable Powders for Chemigation application (10)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Mixing/Loading Liquids for Chemigation application (11)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Chemigation application (12)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.011	0.074		0.38 lb ai per acre	80 Acres per day	0.0020	76	0.000032	10000	76.0
Sprays for Groundboom application (16)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0026	57	0.000042	7600	57.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.000066	4900	19.0
Flagging for Sprays application (18)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table M7:Occupational Handler Short Term Risk From Azinphos-Methyl on Cucurbit Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.016	35	0.00016	2100	34.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.38 lb ai per acre	80 Acres per day	0.0037	150	0.000036	9000	150.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0042	130	0.00010	3100	130.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0049	110	0.000047	6700	110.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0056	100	0.00014	2300	96.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083		0.38 lb ai per acre	350 Acres per day	0.016	35	0.00016	2100	34.0
Wettable Powders for Chemigation application (10)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Mixing/Loading Liquids for Chemigation application (11)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.0094	60	0.00013	2500	58.0
Sprays for Aerial application (14)	0.005	0.068		0.50 lb ai per acre	350 Acres per day	0.013	45	0.00017	1900	44.0
Sprays for Groundboom application (15)	0.005	0.043		0.38 lb ai per acre	80 Acres per day	0.0021	260	0.000018	17000	260.0
Sprays for Groundboom application (16)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0029	200	0.000025	13000	190.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.00041	1400	0.000013	24000	1300.0
Flagging for Sprays application (18)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table M8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Cucurbit Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.0067	22	0.00016	2100	22.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.38 lb ai per acre	80 Acres per day	0.0015	98	0.000036	9000	97.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0018	86	0.00010	3100	83.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0023	64	0.00014	2300	63.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083		0.38 lb ai per acre	350 Acres per day	0.0067	22	0.00016	2100	22.0
Wettable Powders for Chemigation application (10)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Mixing/Loading Liquids for Chemigation application (11)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.0039	38	0.00013	2500	38.0
Sprays for Aerial application (14)	0.005	0.068		0.50 lb ai per acre	350 Acres per day	0.0052	29	0.00017	1900	28.0
Sprays for Groundboom application (15)	0.005	0.043		0.38 lb ai per acre	80 Acres per day	0.00089	170	0.000018	17000	170.0
Sprays for Groundboom application (16)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0012	130	0.000025	13000	120.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Cucurbit Vegetable (Cucumber, Cantaloupe, Honeydew melon, Watermelon)	0.38 lb ai per acre	350 Acres per day	0.00017	870	0.000013	24000	840.0
Flagging for Sprays application (18)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table N1:Occupational Handler Short Term Risk From Azinphos-Methyl on Bulb Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[b]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Aerial application (2)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Aerial application (4)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Groundboom application (6)	3.7	43		0.50 lb ai per acre	80 Acres per day	2.1	< 1	0.025	13	0.26
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	2.5	< 1	0.0010	310	0.23
Wettable Powders for Groundboom application (8)	3.7	43		0.75 lb ai per acre	80 Acres per day	3.2	< 1	0.037	9	0.17
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Chemigation application (10)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Chemigation application (11)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	11.0	< 1	0.0045	71	0.051
Wettable Powders for Chemigation application (12)	3.7	43		0.75 lb ai per acre	350 Acres per day	14.0	< 1	0.16	2	0.040
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.008	70	0.00042	760	64.0
Sprays for Groundboom application (16)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00063	510	43.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0
Flagging for Sprays application (18)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.041	14	0.0013	240	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table N2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Bulb Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[b]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Aerial application (2)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Aerial application (4)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Groundboom application (6)	3.7	43		0.50 lb ai per acre	80 Acres per day	0.88	< 1	0.025	13	0.17
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.75 lb ai per acre	80 Acres per day	1.0	< 1	0.0010	310	0.14
Wettable Powders for Groundboom application (8)	3.7	43		0.75 lb ai per acre	80 Acres per day	1.3	< 1	0.037	9	0.11
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Chemigation application (10)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Chemigation application (11)	2.9	1.2		0.75 lb ai per acre	350 Acres per day	4.5	< 1	0.0045	71	0.033
Wettable Powders for Chemigation application (12)	3.7	43		0.75 lb ai per acre	350 Acres per day	5.8	< 1	0.16	2	0.026
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.00042	760	42.0
Sprays for Groundboom application (16)	0.014	0.74		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00063	510	28.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0
Flagging for Sprays application (18)	0.011	0.35		0.75 lb ai per acre	350 Acres per day	0.017	9	0.0013	240	8.4

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table N3:Occupational Handler Short Term Risk From Azinphos-Methyl on Bulb Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Aerial application (2)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Aerial application (4)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.097	6	0.0049	65	5.3
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.020	28	0.00021	1600	28.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.15	4	0.0074	43	3.5
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Chemigation application (10)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Chemigation application (11)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.086	6	0.0009	360	6.4
Wettable Powders for Chemigation application (12)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.64	1	0.032	10	0.81
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.008	70	0.000086	3700	69.0
Sprays for Groundboom application (16)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.012	47	0.00013	2500	46.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0
Flagging for Sprays application (18)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00026	1200	15.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)).
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table N4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Bulb Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Aerial application (2)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Aerial application (4)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.041	4	0.0049	65	3.5
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.75 lb ai per acre	80 Acres per day	0.0082	18	0.00021	1600	18.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.75 lb ai per acre	80 Acres per day	0.061	2	0.0074	43	2.3
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Chemigation application (10)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Chemigation application (11)	0.023	0.24		0.75 lb ai per acre	350 Acres per day	0.036	4	0.0009	360	4.1
Wettable Powders for Chemigation application (12)	0.17	8.6		0.75 lb ai per acre	350 Acres per day	0.27	1	0.032	10	0.53
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.000086	3700	44.0
Sprays for Groundboom application (16)	0.014	0.15		0.75 lb ai per acre	80 Acres per day	0.0050	30	0.00013	2500	30.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0
Flagging for Sprays application (18)	0.01	0.07		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00026	1200	9.5

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table N5:Occupational Handler Short Term Risk From Azinphos-Methyl on Bulb Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Aerial application (4)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.074	8	0.0025	130	7.1
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.015	38	0.00010	3100	38.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.11	5	0.0037	87	4.8
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Chemigation application (10)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Chemigation application (11)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.064	9	0.00045	710	8.7
Wettable Powders for Chemigation application (12)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.49	1	0.016	20	1.1
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0063	89	0.000042	7600	88.0
Sprays for Groundboom application (16)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0094	59	0.000063	5000	59.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0
Flagging for Sprays application (18)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.038	15	0.00013	2400	15.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table N6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Bulb Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Aerial application (2)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Aerial application (4)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.031	5	0.0025	130	4.7
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.75 lb ai per acre	80 Acres per day	0.0061	25	0.00010	3100	24.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.75 lb ai per acre	80 Acres per day	0.046	3	0.0037	87	3.1
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Chemigation application (10)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Chemigation application (11)	0.017	0.12		0.75 lb ai per acre	350 Acres per day	0.027	6	0.00045	710	5.6
Wettable Powders for Chemigation application (12)	0.13	4.3		0.75 lb ai per acre	350 Acres per day	0.20	1	0.016	20	0.71
Applicator										
Sprays for Aerial application (13)	No Data	No Data	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (14)	No Data	No Data		0.75 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (15)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0026	57	0.000042	7600	57.0
Sprays for Groundboom application (16)	0.011	0.074		0.75 lb ai per acre	80 Acres per day	0.0039	38	0.000063	5000	38.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0
Flagging for Sprays application (18)	0.01	0.035		0.75 lb ai per acre	350 Acres per day	0.016	10	0.00013	2400	9.6

Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table N7:Occupational Handler Short Term Risk From Azinphos-Methyl on Bulb Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0049	110	0.000047	6700	110.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0056	100	0.00014	2300	96.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0074	76	0.000071	4500	75.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0084	67	0.00021	1600	64.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Chemigation application (10)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Mixing/Loading Liquids for Chemigation application (11)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.032	17	0.00031	1000	17.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.037	15	0.0009	360	15.0
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.013	45	0.00017	1900	44.0
Sprays for Aerial application (14)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.019	30	0.00026	1300	29.0
Sprays for Groundboom application (15)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0029	200	0.000025	13000	190.0
Sprays for Groundboom application (16)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0043	130	0.000037	8700	130.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0
Flagging for Sprays application (18)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00083	680	0.000026	12000	640.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table N8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Bulb Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0023	64	0.00014	2300	63.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.75 lb ai per acre	80 Acres per day	0.0031	49	0.000071	4500	48.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.75 lb ai per acre	80 Acres per day	0.0035	43	0.00021	1600	42.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Chemigation application (10)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Chemigation application (11)	0.0086	0.083		0.75 lb ai per acre	350 Acres per day	0.013	11	0.00031	1000	11.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.75 lb ai per acre	350 Acres per day	0.015	10	0.0009	360	9.5
Applicator										
Sprays for Aerial application (13)	0.005	0.068	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.0052	29	0.00017	1900	28.0
Sprays for Aerial application (14)	0.005	0.068		0.75 lb ai per acre	350 Acres per day	0.0078	19	0.00026	1300	19.0
Sprays for Groundboom application (15)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0012	130	0.000025	13000	120.0
Sprays for Groundboom application (16)	0.005	0.043		0.75 lb ai per acre	80 Acres per day	0.0018	84	0.000037	8700	83.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Bulb Vegetables (Dry bulb Onion, Green Onion)	0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0
Flagging for Sprays application (18)	0.00022	0.007		0.75 lb ai per acre	350 Acres per day	0.00034	440	0.000026	12000	420.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) = Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table O1:Occupational Handler Short Term Risk From Azinphos-Methyl on Leafy Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[b]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	5.4	< 1	0.0023	140	0.10
Wettable Powders for Aerial application (2)	3.7	43		0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.38 lb ai per acre	80 Acres per day	1.2	< 1	0.00051	620	0.45
Wettable Powders for Groundboom application (6)	3.7	43		0.38 lb ai per acre	80 Acres per day	1.6	< 1	0.018	17	0.35
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	1.7	< 1	0.00069	470	0.34
Wettable Powders for Groundboom application (8)	3.7	43		0.50 lb ai per acre	80 Acres per day	2.1	< 1	0.025	13	0.26
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2		0.38 lb ai per acre	350 Acres per day	5.4	< 1	0.0023	140	0.10
Wettable Powders for Chemigation application (10)	3.7	43		0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Mixing/Loading Liquids for Chemigation application (11)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	7.3	< 1	0.003	110	0.077
Wettable Powders for Chemigation application (12)	3.7	43		0.50 lb ai per acre	350 Acres per day	9.3	< 1	0.11	3	0.059
Wettable Powders for Groundboom application (13)	3.7	43	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	1.6	< 1	0.018	17	0.35
Wettable Powders for Groundboom application (14)	3.7	43		0.50 lb ai per acre	80 Acres per day	2.1	< 1	0.025	13	0.26
Applicator										
Sprays for Aerial application (15)	No Data	No Data	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (16)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (17)	0.014	0.74		0.38 lb ai per acre	80 Acres per day	0.006	93	0.00032	1000	85.0
Sprays for Groundboom application (18)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.008	70	0.00042	760	64.0
Sprays for Groundboom application (19)	0.014	0.74	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.006	93	0.00032	1000	85.0
Sprays for Groundboom application (20)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.008	70	0.00042	760	64.0
Flagger										
Flagging for Sprays application (21)	0.011	0.35	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.021	27	0.00066	490	26.0
Flagging for Sprays application (22)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.028	20	0.00088	370	19.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table O2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Leafy Vegetables at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[b]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	2.3	< 1	0.0023	140	0.066
Wettable Powders for Aerial application (2)	3.7	43		0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Mixing/Loading Liquids for Aerial application (3)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Aerial application (4)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Mixing/Loading Liquids for Groundboom application (5)	2.9	1.2		0.38 lb ai per acre	80 Acres per day	0.52	< 1	0.00051	620	0.29
Wettable Powders for Groundboom application (6)	3.7	43		0.38 lb ai per acre	80 Acres per day	0.66	< 1	0.018	17	0.22
Mixing/Loading Liquids for Groundboom application (7)	2.9	1.2		0.50 lb ai per acre	80 Acres per day	0.69	< 1	0.00069	470	0.22
Wettable Powders for Groundboom application (8)	3.7	43		0.50 lb ai per acre	80 Acres per day	0.88	< 1	0.025	13	0.17
Mixing/Loading Liquids for Chemigation application (9)	2.9	1.2		0.38 lb ai per acre	350 Acres per day	2.3	< 1	0.0023	140	0.066
Wettable Powders for Chemigation application (10)	3.7	43		0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Mixing/Loading Liquids for Chemigation application (11)	2.9	1.2		0.50 lb ai per acre	350 Acres per day	3.0	< 1	0.003	110	0.050
Wettable Powders for Chemigation application (12)	3.7	43		0.50 lb ai per acre	350 Acres per day	3.9	< 1	0.11	3	0.038
Wettable Powders for Groundboom application (13)	3.7	43	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.66	< 1	0.018	17	0.22
Wettable Powders for Groundboom application (14)	3.7	43		0.50 lb ai per acre	80 Acres per day	0.88	< 1	0.025	13	0.17
Applicator										
Sprays for Aerial application (15)	No Data	No Data	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (16)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (17)	0.014	0.74		0.38 lb ai per acre	80 Acres per day	0.0025	60	0.00032	1000	57.0
Sprays for Groundboom application (18)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.00042	760	42.0
Sprays for Groundboom application (19)	0.014	0.74	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.0025	60	0.00032	1000	57.0
Sprays for Groundboom application (20)	0.014	0.74		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.00042	760	42.0
Flagger										
Flagging for Sprays application (21)	0.011	0.35	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.0086	17	0.00066	490	17.0
Flagging for Sprays application (22)	0.011	0.35		0.50 lb ai per acre	350 Acres per day	0.011	13	0.00088	370	13.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table O3:Occupational Handler Short Term Risk From Azinphos-Methyl on Leafy Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.043	13	0.00045	710	13.0
Wettable Powders for Aerial application (2)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.38 lb ai per acre	80 Acres per day	0.0099	57	0.00010	3100	56.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.073	8	0.0037	87	7.1
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.013	43	0.00014	2300	42.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.097	6	0.0049	65	5.3
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24		0.38 lb ai per acre	350 Acres per day	0.043	13	0.00045	710	13.0
Wettable Powders for Chemigation application (10)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Mixing/Loading Liquids for Chemigation application (11)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.058	10	0.0006	530	9.6
Wettable Powders for Chemigation application (12)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.43	1	0.022	15	1.2
Wettable Powders for Groundboom application (13)	0.17	8.6	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.073	8	0.0037	87	7.1
Wettable Powders for Groundboom application (14)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.097	6	0.0049	65	5.3
Applicator										
Sprays for Aerial application (15)	No Data	No Data	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (16)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (17)	0.014	0.15		0.38 lb ai per acre	80 Acres per day	0.006	93	0.000064	5000	92.0
Sprays for Groundboom application (18)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.008	70	0.000086	3700	69.0
Sprays for Groundboom application (19)	0.014	0.15	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.006	93	0.000064	5000	92.0
Sprays for Groundboom application (20)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.008	70	0.000086	3700	69.0
Flagger										
Flagging for Sprays application (21)	0.01	0.07	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.00013	2400	30.0
Flagging for Sprays application (22)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.025	22	0.00018	1800	22.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table O4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Leafy Vegetables at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.018	8	0.00045	710	8.2
Wettable Powders for Aerial application (2)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Mixing/Loading Liquids for Aerial application (3)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Aerial application (4)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Mixing/Loading Liquids for Groundboom application (5)	0.023	0.24		0.38 lb ai per acre	80 Acres per day	0.0041	36	0.00010	3100	36.0
Wettable Powders for Groundboom application (6)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.030	5	0.0037	87	4.7
Mixing/Loading Liquids for Groundboom application (7)	0.023	0.24		0.50 lb ai per acre	80 Acres per day	0.0055	27	0.00014	2300	27.0
Wettable Powders for Groundboom application (8)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.041	4	0.0049	65	3.5
Mixing/Loading Liquids for Chemigation application (9)	0.023	0.24		0.38 lb ai per acre	350 Acres per day	0.018	8	0.00045	710	8.2
Wettable Powders for Chemigation application (10)	0.17	8.6		0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Mixing/Loading Liquids for Chemigation application (11)	0.023	0.24		0.50 lb ai per acre	350 Acres per day	0.024	6	0.0006	530	6.2
Wettable Powders for Chemigation application (12)	0.17	8.6		0.50 lb ai per acre	350 Acres per day	0.18	1	0.022	15	0.80
Wettable Powders for Groundboom application (13)	0.17	8.6	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.030	5	0.0037	87	4.7
Wettable Powders for Groundboom application (14)	0.17	8.6		0.50 lb ai per acre	80 Acres per day	0.041	4	0.0049	65	3.5
Applicator										
Sprays for Aerial application (15)	No Data	No Data	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (16)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (17)	0.014	0.15		0.38 lb ai per acre	80 Acres per day	0.0025	60	0.000064	5000	59.0
Sprays for Groundboom application (18)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.000086	3700	44.0
Sprays for Groundboom application (19)	0.014	0.15	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.0025	60	0.000064	5000	59.0
Sprays for Groundboom application (20)	0.014	0.15		0.50 lb ai per acre	80 Acres per day	0.0033	45	0.000086	3700	44.0
Flagger										
Flagging for Sprays application (21)	0.01	0.07	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.00013	2400	19.0
Flagging for Sprays application (22)	0.01	0.07		0.50 lb ai per acre	350 Acres per day	0.010	14	0.00018	1800	14.0

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table O5:Occupational Handler Short Term Risk From Azinphos-Methyl on Leafy Vegetablesat Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.032	18	0.00023	1400	17.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.38 lb ai per acre	80 Acres per day	0.0073	77	0.000051	6200	76.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.056	10	0.0018	170	9.5
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0097	58	0.000069	4700	57.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.074	8	0.0025	130	7.1
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12		0.38 lb ai per acre	350 Acres per day	0.032	18	0.00023	1400	17.0
Wettable Powders for Chemigation application (10)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Mixing/Loading Liquids for Chemigation application (11)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.043	13	0.0003	1100	13.0
Wettable Powders for Chemigation application (12)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.33	2	0.011	30	1.6
Wettable Powders for Groundboom application (13)	0.13	4.3	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.056	10	0.0018	170	9.5
Wettable Powders for Groundboom application (14)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.074	8	0.0025	130	7.1
Applicator										
Sprays for Aerial application (15)	No Data	No Data	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (16)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (17)	0.011	0.074		0.38 lb ai per acre	80 Acres per day	0.0047	120	0.000032	10000	120.0
Sprays for Groundboom application (18)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0063	89	0.000042	7600	88.0
Sprays for Groundboom application (19)	0.011	0.074	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.0047	120	0.000032	10000	120.0
Sprays for Groundboom application (20)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0063	89	0.000042	7600	88.0
Flagger										
Flagging for Sprays application (21)	0.01	0.035	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.000066	4900	30.0
Flagging for Sprays application (22)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.025	22	0.000088	3700	22.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table O6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Leafy Vegetables at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.013	11	0.00023	1400	11.0
Wettable Powders for Aerial application (2)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Mixing/Loading Liquids for Aerial application (3)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Aerial application (4)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Mixing/Loading Liquids for Groundboom application (5)	0.017	0.12		0.38 lb ai per acre	80 Acres per day	0.0030	49	0.000051	6200	49.0
Wettable Powders for Groundboom application (6)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.023	6	0.0018	170	6.2
Mixing/Loading Liquids for Groundboom application (7)	0.017	0.12		0.50 lb ai per acre	80 Acres per day	0.0041	37	0.000069	4700	37.0
Wettable Powders for Groundboom application (8)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.031	5	0.0025	130	4.7
Mixing/Loading Liquids for Chemigation application (9)	0.017	0.12		0.38 lb ai per acre	350 Acres per day	0.013	11	0.00023	1400	11.0
Wettable Powders for Chemigation application (10)	0.13	4.3		0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Mixing/Loading Liquids for Chemigation application (11)	0.017	0.12		0.50 lb ai per acre	350 Acres per day	0.018	8	0.0003	1100	8.4
Wettable Powders for Chemigation application (12)	0.13	4.3		0.50 lb ai per acre	350 Acres per day	0.14	1	0.011	30	1.1
Wettable Powders for Groundboom application (13)	0.13	4.3	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.023	6	0.0018	170	6.2
Wettable Powders for Groundboom application (14)	0.13	4.3		0.50 lb ai per acre	80 Acres per day	0.031	5	0.0025	130	4.7
Applicator										
Sprays for Aerial application (15)	No Data	No Data	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (16)	No Data	No Data		0.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Groundboom application (17)	0.011	0.074		0.38 lb ai per acre	80 Acres per day	0.0020	76	0.000032	10000	76.0
Sprays for Groundboom application (18)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0026	57	0.000042	7600	57.0
Sprays for Groundboom application (19)	0.011	0.074	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.0020	76	0.000032	10000	76.0
Sprays for Groundboom application (20)	0.011	0.074		0.50 lb ai per acre	80 Acres per day	0.0026	57	0.000042	7600	57.0
Flagger										
Flagging for Sprays application (21)	0.01	0.035	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.000066	4900	19.0
Flagging for Sprays application (22)	0.01	0.035		0.50 lb ai per acre	350 Acres per day	0.010	14	0.000088	3700	14.0

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table O7:Occupational Handler Short Term Risk From Azinphos-Methyl on Leafy Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.016	35	0.00016	2100	34.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.38 lb ai per acre	80 Acres per day	0.0037	150	0.000036	9000	150.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0042	130	0.00010	3100	130.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0049	110	0.000047	6700	110.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.00560.012	100	0.00014	2300	96.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083		0.38 lb ai per acre	350 Acres per day	0.016	35	0.00016	2100	34.0
Wettable Powders for Chemigation application (10)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Mixing/Loading Liquids for Chemigation application (11)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.022	26	0.00021	1500	26.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.025	23	0.0006	530	22.0
Wettable Powders for Groundboom application (13)	0.0098	0.24	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.0042	130	0.00010	3100	130.0
Wettable Powders for Groundboom application (14)		0.24		0.50 lb ai per acre	80 Acres per day	0.0056	100	0.00014	2300	96.0
Applicator										
Sprays for Aerial application (15)	0.005	0.068	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.0094	60	0.00013	2500	58.0
Sprays for Aerial application (16)	0.005	0.068		0.50 lb ai per acre	350 Acres per day	0.013	45	0.00017	1900	44.0
Sprays for Groundboom application (17)	0.005	0.043		0.38 lb ai per acre	80 Acres per day	0.0021	260	0.000018	17000	260.0
Sprays for Groundboom application (18)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0029	200	0.000025	13000	190.0
Sprays for Groundboom application (19)	0.005	0.043	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.0021	260	0.000018	17000	260.0
Sprays for Groundboom application (20)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0029	200	0.000025	13000	190.0
Flagger										
Flagging for Sprays application (21)	0.00022	0.007	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.00041	1400	0.000013	24000	1300.0
Flagging for Sprays application (22)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00055	1000	0.000018	18000	960.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table O8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Leafy Vegetables at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.0067	22	0.00016	2100	22.0
Wettable Powders for Aerial application (2)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Mixing/Loading Liquids for Aerial application (3)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Aerial application (4)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Mixing/Loading Liquids for Groundboom application (5)	0.0086	0.083		0.38 lb ai per acre	80 Acres per day	0.0015	98	0.000036	9000	97.0
Wettable Powders for Groundboom application (6)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0018	86	0.00010	3100	83.0
Mixing/Loading Liquids for Groundboom application (7)	0.0086	0.083		0.50 lb ai per acre	80 Acres per day	0.0020	73	0.000047	6700	72.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0023	64	0.00014	2300	63.0
Mixing/Loading Liquids for Chemigation application (9)	0.0086	0.083		0.38 lb ai per acre	350 Acres per day	0.0067	22	0.00016	2100	22.0
Wettable Powders for Chemigation application (10)	0.0098	0.24		0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Mixing/Loading Liquids for Chemigation application (11)	0.0086	0.083		0.50 lb ai per acre	350 Acres per day	0.0090	17	0.00021	1500	17.0
Wettable Powders for Chemigation application (12)	0.0098	0.24		0.50 lb ai per acre	350 Acres per day	0.010	15	0.0006	530	14.0
Wettable Powders for Groundboom application (13)	0.0098	0.24	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.0018	86	0.00010	3100	83.0
Wettable Powders for Groundboom application (14)	0.0098	0.24		0.50 lb ai per acre	80 Acres per day	0.0023	64	0.00014	2300	63.0
Applicator										
Sprays for Aerial application (15)	0.005	0.068	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.0039	38	0.00013	2500	38.0
Sprays for Aerial application (16)	0.005	0.068		0.50 lb ai per acre	350 Acres per day	0.0052	29	0.00017	1900	28.0
Sprays for Groundboom application (17)	0.005	0.043		0.38 lb ai per acre	80 Acres per day	0.00089	170	0.000018	17000	170.0
Sprays for Groundboom application (18)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0012	130	0.000025	13000	120.0
Sprays for Groundboom application (19)	0.005	0.043	Leafy Vegetables (Parsley)	0.38 lb ai per acre	80 Acres per day	0.00089	170	0.000018	17000	170.0
Sprays for Groundboom application (20)	0.005	0.043		0.50 lb ai per acre	80 Acres per day	0.0012	130	0.000025	13000	120.0
Flagger										
Flagging for Sprays application (21)	0.00022	0.007	Leafy Vegetables (Celery, Spinach)	0.38 lb ai per acre	350 Acres per day	0.00017	870	0.000013	24000	840.0
Flagging for Sprays application (22)	0.00022	0.007		0.50 lb ai per acre	350 Acres per day	0.00023	650	0.000018	18000	630.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table P1:Occupational Handler Short Term Risk From Azinphos-Methyl on Ornamental Plants at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	3.7	43	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	6.9	< 1	0.081	4	0.079
Wettable Powders for Aerial application (2)	3.7	43		2.00 lb ai per acre	350 Acres per day	37	< 1	0.43	1	0.015
Wettable Powders for Airblast application (3)	3.7	43		0.38 lb ai per acre	20 Acres per day	0.40	1	0.0046	69	1.4
Wettable Powders for Airblast application (4)	3.7	43		0.38 lb ai per acre	40 Acres per day	0.79	1	0.0092	35	0.69
Wettable Powders for Airblast application (5)	3.7	43		2.00 lb ai per acre	20 Acres per day	2.1	< 1	0.025	13	0.26
Wettable Powders for Airblast application (6)	3.7	43		2.00 lb ai per acre	40 Acres per day	4.2	< 1	0.049	7	0.13
Wettable Powders for Groundboom application (7)	3.7	43		0.38 lb ai per acre	80 Acres per day	1.6	< 1	0.018	17	0.35
Wettable Powders for Groundboom application (8)	3.7	43		2.00 lb ai per acre	80 Acres per day	8.5	< 1	0.098	3	0.065
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (11)	0.36	4.5		0.38 lb ai per acre	20 Acres per day	0.039	15	0.00048	660	14.0
Sprays for Airblast application (12)	0.36	4.5		0.38 lb ai per acre	40 Acres per day	0.077	7	0.00096	330	7.1
Sprays for Airblast application (13)	0.36	4.5		2.00 lb ai per acre	20 Acres per day	0.21	3	0.0026	120	2.7
Sprays for Airblast application (14)	0.36	4.5		2.00 lb ai per acre	40 Acres per day	0.41	1	0.0051	62	1.3
Sprays for Groundboom application (15)	0.014	0.74		0.38 lb ai per acre	80 Acres per day	0.006	93	0.00032	1000	85.0
Sprays for Groundboom application (16)	0.014	0.74		2.00 lb ai per acre	80 Acres per day	0.032	18	0.0017	190	16.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.021	27	0.00066	490	26.0
Flagging for Sprays application (18)	0.011	0.35		2.00 lb ai per acre	350 Acres per day	0.11	5	0.0035	91	4.8

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg).
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table P2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Ornamental Plants at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	3.7	43	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	2.9	< 1	0.081	4	0.051
Wettable Powders for Aerial application (2)	3.7	43		2.00 lb ai per acre	350 Acres per day	15.0	< 1	0.43	1	0.0096
Wettable Powders for Airblast application (3)	3.7	43		0.38 lb ai per acre	20 Acres per day	0.17	1	0.0046	69	0.90
Wettable Powders for Airblast application (4)	3.7	43		0.38 lb ai per acre	40 Acres per day	0.33	< 1	0.0092	35	0.45
Wettable Powders for Airblast application (5)	3.7	43		2.00 lb ai per acre	20 Acres per day	0.88	< 1	0.025	13	0.17
Wettable Powders for Airblast application (6)	3.7	43		2.00 lb ai per acre	40 Acres per day	1.8	< 1	0.049	7	0.084
Wettable Powders for Groundboom application (7)	3.7	43		0.38 lb ai per acre	80 Acres per day	0.66	< 1	0.018	17	0.22
Wettable Powders for Groundboom application (8)	3.7	43		2.00 lb ai per acre	80 Acres per day	3.5	< 1	0.098	3	0.042
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (11)	0.36	4.5		0.38 lb ai per acre	20 Acres per day	0.016	9	0.00048	660	9.2
Sprays for Airblast application (12)	0.36	4.5		0.38 lb ai per acre	40 Acres per day	0.032	5	0.00096	330	4.6
Sprays for Airblast application (13)	0.36	4.5		2.00 lb ai per acre	20 Acres per day	0.086	2	0.0026	120	1.7
Sprays for Airblast application (14)	0.36	4.5		2.00 lb ai per acre	40 Acres per day	0.17	1	0.0051	62	0.86
Sprays for Groundboom application (15)	0.014	0.74		0.38 lb ai per acre	80 Acres per day	0.0025	60	0.00032	1000	57.0
Sprays for Groundboom application (16)	0.014	0.74		2.00 lb ai per acre	80 Acres per day	0.013	11	0.0017	190	11.0
Flagger										
Flagging for Sprays application (17)	0.011	0.35	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.0086	17	0.00066	490	17.0
Flagging for Sprays application (18)	0.011	0.35		2.00 lb ai per acre	350 Acres per day	0.046	3	0.0035	91	3.2

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table P3:Occupational Handler Short Term Risk From Azinphos-Methyl on Ornamental Plants at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.17	8.6	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.32	2	0.016	20	1.6
Wettable Powders for Aerial application (2)	0.17	8.6		2.00 lb ai per acre	350 Acres per day	1.7	< 1	0.086	4	0.30
Wettable Powders for Airblast application (3)	0.17	8.6		0.38 lb ai per acre	20 Acres per day	0.018	31	0.00092	350	28.0
Wettable Powders for Airblast application (4)	0.17	8.6		0.38 lb ai per acre	40 Acres per day	0.036	15	0.0018	170	14.0
Wettable Powders for Airblast application (5)	0.17	8.6		2.00 lb ai per acre	20 Acres per day	0.097	6	0.0049	65	5.3
Wettable Powders for Airblast application (6)	0.17	8.6		2.00 lb ai per acre	40 Acres per day	0.19	3	0.0098	33	2.6
Wettable Powders for Groundboom application (7)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.073	8	0.0037	87	7.1
Wettable Powders for Groundboom application (8)	0.17	8.6		2.00 lb ai per acre	80 Acres per day	0.39	1	0.020	16	1.3
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (11)	0.24	0.9		0.38 lb ai per acre	20 Acres per day	0.026	22	0.000096	3300	22.0
Sprays for Airblast application (12)	0.24	0.9		0.38 lb ai per acre	40 Acres per day	0.051	11	0.00019	1700	11.0
Sprays for Airblast application (13)	0.24	0.9		2.00 lb ai per acre	20 Acres per day	0.14	4	0.00051	620	4.1
Sprays for Airblast application (14)	0.24	0.9		2.00 lb ai per acre	40 Acres per day	0.27	2	0.0010	310	2.0
Sprays for Groundboom application (15)	0.014	0.15		0.38 lb ai per acre	80 Acres per day	0.006	93	0.000064	5000	92.0
Sprays for Groundboom application (16)	0.014	0.15		2.00 lb ai per acre	80 Acres per day	0.032	18	0.00034	930	17.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.00013	2400	30.0
Flagging for Sprays application (18)	0.01	0.07		2.00 lb ai per acre	350 Acres per day	0.1	6	0.0007	460	5.5

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table P4:Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Ornamental Plants at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.17	8.6	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.13	1	0.016	20	1.1
Wettable Powders for Aerial application (2)	0.17	8.6		2.00 lb ai per acre	350 Acres per day	0.71	< 1	0.086	4	0.20
Wettable Powders for Airblast application (3)	0.17	8.6		0.38 lb ai per acre	20 Acres per day	0.0076	20	0.00092	350	19.0
Wettable Powders for Airblast application (4)	0.17	8.6		0.38 lb ai per acre	40 Acres per day	0.015	10	0.0018	170	9.3
Wettable Powders for Airblast application (5)	0.17	8.6		2.00 lb ai per acre	20 Acres per day	0.041	4	0.0049	65	3.5
Wettable Powders for Airblast application (6)	0.17	8.6		2.00 lb ai per acre	40 Acres per day	0.081	2	0.0098	33	1.8
Wettable Powders for Groundboom application (7)	0.17	8.6		0.38 lb ai per acre	80 Acres per day	0.030	5	0.0037	87	4.7
Wettable Powders for Groundboom application (8)	0.17	8.6		2.00 lb ai per acre	80 Acres per day	0.16	1	0.020	16	0.88
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (11)	0.24	0.9		0.38 lb ai per acre	20 Acres per day	0.011	14	0.000096	3300	14.0
Sprays for Airblast application (12)	0.24	0.9		0.38 lb ai per acre	40 Acres per day	0.021	7	0.00019	1700	7.0
Sprays for Airblast application (13)	0.24	0.9		2.00 lb ai per acre	20 Acres per day	0.057	3	0.00051	620	2.6
Sprays for Airblast application (14)	0.24	0.9		2.00 lb ai per acre	40 Acres per day	0.11	1	0.0010	310	1.3
Sprays for Groundboom application (15)	0.014	0.15		0.38 lb ai per acre	80 Acres per day	0.0025	60	0.000064	5000	59.0
Sprays for Groundboom application (16)	0.014	0.15		2.00 lb ai per acre	80 Acres per day	0.013	11	0.00034	930	11.0
Flagger										
Flagging for Sprays application (17)	0.01	0.07	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.00013	2400	19.0
Flagging for Sprays application (18)	0.01	0.07		2.00 lb ai per acre	350 Acres per day	0.042	4	0.0007	460	3.6

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and gloves.
Baseline inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table P5:Occupational Handler Short Term Risk From Azinphos-Methyl on Ornamental Plants at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.13	4.3	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.24	2	0.0081	40	2.2
Wettable Powders for Aerial application (2)	0.13	4.3		2.00 lb ai per acre	350 Acres per day	1.3	< 1	0.043	7	0.41
Wettable Powders for Airblast application (3)	0.13	4.3		0.38 lb ai per acre	20 Acres per day	0.014	40	0.00046	700	38.0
Wettable Powders for Airblast application (4)	0.13	4.3		0.38 lb ai per acre	40 Acres per day	0.028	20	0.00092	350	19.0
Wettable Powders for Airblast application (5)	0.13	4.3		2.00 lb ai per acre	20 Acres per day	0.074	8	0.0025	130	7.1
Wettable Powders for Airblast application (6)	0.13	4.3		2.00 lb ai per acre	40 Acres per day	0.15	4	0.0049	65	3.6
Wettable Powders for Groundboom application (7)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.056	10	0.0018	170	9.5
Wettable Powders for Groundboom application (8)	0.13	4.3		2.00 lb ai per acre	80 Acres per day	0.30	2	0.0098	33	1.8
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (11)	0.22	0.45		0.38 lb ai per acre	20 Acres per day	0.024	24	0.000048	6600	24.0
Sprays for Airblast application (12)	0.22	0.45		0.38 lb ai per acre	40 Acres per day	0.047	12	0.000096	3300	12.0
Sprays for Airblast application (13)	0.22	0.45		2.00 lb ai per acre	20 Acres per day	0.13	4	0.00026	1200	4.4
Sprays for Airblast application (14)	0.22	0.45		2.00 lb ai per acre	40 Acres per day	0.25	2	0.00051	620	2.2
Sprays for Groundboom application (15)	0.011	0.074		0.38 lb ai per acre	80 Acres per day	0.0047	120	0.000032	10000	120.0
Sprays for Groundboom application (16)	0.011	0.074		2.00 lb ai per acre	80 Acres per day	0.025	22	0.00017	1900	22.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.019	30	0.000066	4900	30.0
Flagging for Sprays application (18)	0.01	0.035		2.00 lb ai per acre	350 Acres per day	0.1	6	0.00035	910	5.6

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table P6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Ornamental Plants at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[e]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.13	4.3	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.10	1	0.0081	40	1.4
Wettable Powders for Aerial application (2)	0.13	4.3		2.00 lb ai per acre	350 Acres per day	0.54	< 1	0.043	7	0.27
Wettable Powders for Airblast application (3)	0.13	4.3		0.38 lb ai per acre	20 Acres per day	0.0058	26	0.00046	700	25.0
Wettable Powders for Airblast application (4)	0.13	4.3		0.38 lb ai per acre	40 Acres per day	0.012	13	0.00092	350	12.0
Wettable Powders for Airblast application (5)	0.13	4.3		2.00 lb ai per acre	20 Acres per day	0.031	5	0.0025	130	4.7
Wettable Powders for Airblast application (6)	0.13	4.3		2.00 lb ai per acre	40 Acres per day	0.062	2	0.0049	65	2.3
Wettable Powders for Groundboom application (7)	0.13	4.3		0.38 lb ai per acre	80 Acres per day	0.023	6	0.0018	170	6.2
Wettable Powders for Groundboom application (8)	0.13	4.3		2.00 lb ai per acre	80 Acres per day	0.12	1	0.0098	33	1.2
Applicator										
Sprays for Aerial application (9)	No Data	No Data	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (10)	No Data	No Data		2.00 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Airblast application (11)	0.22	0.45		0.38 lb ai per acre	20 Acres per day	0.0098	15	0.000048	6600	15.0
Sprays for Airblast application (12)	0.22	0.45		0.38 lb ai per acre	40 Acres per day	0.020	8	0.000096	3300	7.6
Sprays for Airblast application (13)	0.22	0.45		2.00 lb ai per acre	20 Acres per day	0.052	3	0.00026	1200	2.9
Sprays for Airblast application (14)	0.22	0.45		2.00 lb ai per acre	40 Acres per day	0.10	1	0.00051	620	1.4
Sprays for Groundboom application (15)	0.011	0.074		0.38 lb ai per acre	80 Acres per day	0.0020	76	0.000032	10000	76.0
Sprays for Groundboom application (16)	0.011	0.074		2.00 lb ai per acre	80 Acres per day	0.010	14	0.00017	1900	14.0
Flagger										
Flagging for Sprays application (17)	0.01	0.035	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.0078	19	0.000066	4900	19.0
Flagging for Sprays application (18)	0.01	0.035		2.00 lb ai per acre	350 Acres per day	0.042	4	0.00035	910	3.6

[a] Max PPE Baseline dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table P7:Occupational Handler Short Term Risk From Azinphos-Methyl on Ornamental Plants at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.0098	0.24	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.018	30	0.00045	710	29.0
Wettable Powders for Aerial application (2)	0.0098	0.24		2.00 lb ai per acre	350 Acres per day	0.098	6	0.0024	130	5.5
Wettable Powders for Airblast application (3)	0.0098	0.24		0.38 lb ai per acre	20 Acres per day	0.0011	530	0.000026	12000	510.0
Wettable Powders for Airblast application (4)	0.0098	0.24		0.38 lb ai per acre	40 Acres per day	0.0021	270	0.000051	6200	260.0
Wettable Powders for Airblast application (5)	0.0098	0.24		2.00 lb ai per acre	20 Acres per day	0.0056	100	0.00014	2300	96.0
Wettable Powders for Airblast application (6)	0.0098	0.24		2.00 lb ai per acre	40 Acres per day	0.011	50	0.00027	1200	48.0
Wettable Powders for Groundboom application (7)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0042	130	0.00010	3100	130.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		2.00 lb ai per acre	80 Acres per day	0.022	25	0.00055	580	24.0
Applicator										
Sprays for Aerial application (9)	0.005	0.068	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.0094	60	0.00013	2500	58.0
Sprays for Aerial application (10)	0.005	0.068		2.00 lb ai per acre	350 Acres per day	0.05	11	0.00068	470	11.0
Sprays for Airblast application (11)	0.019	0.45		0.38 lb ai per acre	20 Acres per day	0.0020	280	0.000048	6600	260.0
Sprays for Airblast application (12)	0.019	0.45		0.38 lb ai per acre	40 Acres per day	0.0041	140	0.000096	3300	130.0
Sprays for Airblast application (13)	0.019	0.45		2.00 lb ai per acre	20 Acres per day	0.011	52	0.00026	1200	50.0
Sprays for Airblast application (14)	0.019	0.45		2.00 lb ai per acre	40 Acres per day	0.022	26	0.00051	620	25.0
Sprays for Groundboom application (15)	0.005	0.043		0.38 lb ai per acre	80 Acres per day	0.0021	260	0.000018	17000	260.0
Sprays for Groundboom application (16)	0.005	0.043		2.00 lb ai per acre	80 Acres per day	0.011	49	0.000098	3300	48.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.00041	1400	0.000013	24000	1300.0
Flagging for Sprays application (18)	0.00022	0.007		2.00 lb ai per acre	350 Acres per day	0.0022	260	0.00007	4600	240.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg)..

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table P8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Ornamental Plants at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Wettable Powders for Aerial application (1)	0.0098	0.24	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.0077	20	0.00045	710	19.0
Wettable Powders for Aerial application (2)	0.0098	0.24		2.00 lb ai per acre	350 Acres per day	0.041	4	0.0024	130	3.6
Wettable Powders for Airblast application (3)	0.0098	0.24		0.38 lb ai per acre	20 Acres per day	0.00044	340	0.000026	12000	330.0
Wettable Powders for Airblast application (4)	0.0098	0.24		0.38 lb ai per acre	40 Acres per day	0.00088	170	0.000051	6200	170.0
Wettable Powders for Airblast application (5)	0.0098	0.24		2.00 lb ai per acre	20 Acres per day	0.0023	64	0.00014	2300	63.0
Wettable Powders for Airblast application (6)	0.0098	0.24		2.00 lb ai per acre	40 Acres per day	0.0047	32	0.00027	1200	31.0
Wettable Powders for Groundboom application (7)	0.0098	0.24		0.38 lb ai per acre	80 Acres per day	0.0018	86	0.00010	3100	83.0
Wettable Powders for Groundboom application (8)	0.0098	0.24		2.00 lb ai per acre	80 Acres per day	0.0093	16	0.00055	580	16.0
Applicator										
Sprays for Aerial application (9)	0.005	0.068	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.0039	38	0.00013	2500	38.0
Sprays for Aerial application (10)	0.005	0.068		2.00 lb ai per acre	350 Acres per day	0.021	7	0.00068	470	7.1
Sprays for Airblast application (11)	0.019	0.45		0.38 lb ai per acre	20 Acres per day	0.00085	180	0.000048	6600	170.0
Sprays for Airblast application (12)	0.019	0.45		0.38 lb ai per acre	40 Acres per day	0.0017	88	0.000096	3300	86.0
Sprays for Airblast application (13)	0.019	0.45		2.00 lb ai per acre	20 Acres per day	0.0045	33	0.00026	1200	32.0
Sprays for Airblast application (14)	0.019	0.45		2.00 lb ai per acre	40 Acres per day	0.0091	17	0.00051	620	16.0
Sprays for Groundboom application (15)	0.005	0.043		0.38 lb ai per acre	80 Acres per day	0.00089	170	0.000018	17000	170.0
Sprays for Groundboom application (16)	0.005	0.043		2.00 lb ai per acre	80 Acres per day	0.0048	31	0.000098	3300	31.0
Flagger										
Flagging for Sprays application (17)	0.00022	0.007	Ornamental Plants (Nursery Stock)	0.38 lb ai per acre	350 Acres per day	0.00017	870	0.000013	24000	840.0
Flagging for Sprays application (18)	0.00022	0.007		2.00 lb ai per acre	350 Acres per day	0.00092	160	0.00007	4600	160.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table Q1:Occupational Handler Short Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards)at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	22.0	< 1	0.009	36	0.026
Mixing/Loading Liquids for Aerial application (2)	2.9	1.2		1.50 lb ai per acre	1200 Acres per day	75.0	< 1	0.031	10	0.0075
Wettable Powders for Aerial application (3)	3.7	43		1.50 lb ai per acre	350 Acres per day	28.0	< 1	0.32	1	0.020
Wettable Powders for Aerial application (4)	3.7	43		1.50 lb ai per acre	1200 Acres per day	95.0	< 1	1.1	< 1	0.0058
Applicator										
Sprays for Aerial application (5)	No Data	No Data	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (6)	No Data	No Data		1.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Flagger										
Flagging for Sprays application (7)	0.011	0.35	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.083	7	0.0026	120	6.4

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table Q2:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards) at Baseline

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	2.9	1.2	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	9.1	< 1	0.009	36	0.017
Mixing/Loading Liquids for Aerial application (2)	2.9	1.2		1.50 lb ai per acre	1200 Acres per day	31.0	< 1	0.031	10	0.0048
Wettable Powders for Aerial application (3)	3.7	43		1.50 lb ai per acre	350 Acres per day	12.0	< 1	0.32	1	0.013
Wettable Powders for Aerial application (4)	3.7	43		1.50 lb ai per acre	1200 Acres per day	40.0	< 1	1.1	< 1	0.0037
Applicator										
Sprays for Aerial application (5)	No Data	No Data	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (6)	No Data	No Data		1.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Flagger										
Flagging for Sprays application (7)	0.011	0.35	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.034	4	0.0026	120	4.2

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts and no gloves.
Baseline inhalation unit exposure represents no respirator.
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table Q3:Occupational Handler Short Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards) at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.17	3	0.0018	180	3.2
Mixing/Loading Liquids for Aerial application (2)	0.023	0.24		1.50 lb ai per acre	1200 Acres per day	0.59	1	0.0062	52	0.93
Wettable Powders for Aerial application (3)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	1.3	< 1	0.065	5	0.40
Wettable Powders for Aerial application (4)	0.17	8.6		1.50 lb ai per acre	1200 Acres per day	4.4	< 1	0.22	1	0.12
Applicator										
Sprays for Aerial application (5)	No Data	No Data	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (6)	No Data	No Data		1.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Flagger										
Flagging for Sprays application (7)	0.01	0.07	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.075	7	0.00053	610	7.4

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table Q4:Occupational Handler Intermediate- Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards) at Min PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.023	0.24	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.072	2	0.0018	180	2.1
Mixing/Loading Liquids for Aerial application (2)	0.023	0.24		1.50 lb ai per acre	1200 Acres per day	0.25	1	0.0062	52	0.60
Wettable Powders for Aerial application (3)	0.17	8.6		1.50 lb ai per acre	350 Acres per day	0.53	< 1	0.065	5	0.27
Wettable Powders for Aerial application (4)	0.17	8.6		1.50 lb ai per acre	1200 Acres per day	1.8	< 1	0.22	1	0.078
Applicator										
Sprays for Aerial application (5)	No Data	No Data	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (6)	No Data	No Data		1.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Flagger										
Flagging for Sprays application (7)	0.01	0.07	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.031	5	0.00053	610	4.8

[a] Min PPE dermal unit exposure scenarios includes long pants, long shirts and gloves.
Min PPE inhalation unit exposure represents Dust mist respirator (80 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table Q5:Occupational Handler Short Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards) at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup(Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.13	4	0.0009	360	4.3
Mixing/Loading Liquids for Aerial application (2)	0.017	0.12		1.50 lb ai per acre	1200 Acres per day	0.44	1	0.0031	100	1.3
Wettable Powders for Aerial application (3)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.98	1	0.032	10	0.54
Wettable Powders for Aerial application (4)	0.13	4.3		1.50 lb ai per acre	1200 Acres per day	3.3	< 1	0.11	3	0.16
Applicator										
Sprays for Aerial application (5)	No Data	No Data	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (6)	No Data	No Data		1.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Flagger										
Flagging for Sprays application (7)	0.01	0.035	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.075	7	0.00026	1200	7.4

[a] Max PPE dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Max PPE inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg).
[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table Q6:Occupational Handler Intermediate Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards) at Max PPE

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	CropGroup(Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE [c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.017	0.12	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.053	3	0.0009	360	2.8
Mixing/Loading Liquids for Aerial application (2)	0.017	0.12		1.50 lb ai per acre	1200 Acres per day	0.18	1	0.0031	100	0.82
Wettable Powders for Aerial application (3)	0.13	4.3		1.50 lb ai per acre	350 Acres per day	0.41	< 1	0.032	10	0.36
Wettable Powders for Aerial application (4)	0.13	4.3		1.50 lb ai per acre	1200 Acres per day	1.4	< 1	0.11	3	0.10
Applicator										
Sprays for Aerial application (5)	No Data	No Data	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	No Data	No Data	No Data	No Data	No Data
Sprays for Aerial application (6)	No Data	No Data		1.50 lb ai per acre	1200 Acres per day	No Data	No Data	No Data	No Data	No Data
Flagger										
Flagging for Sprays application (7)	0.01	0.035	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.031	5	0.00026	1200	4.8

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts, gloves and coveralls.
Baseline inhalation unit exposure represents organic vapour respirator (90 % PF).
[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%
[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).
[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).
[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).
[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

Table Q7:Occupational Handler Short Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards) at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.065	9	0.00062	510	8.5
Mixing/Loading Liquids for Aerial application (2)	0.0086	0.083		1.50 lb ai per acre	1200 Acres per day	0.22	3	0.0021	150	2.5
Wettable Powders for Aerial application (3)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.074	8	0.0018	180	7.3
Wettable Powders for Aerial application (4)	0.0098	0.24		1.50 lb ai per acre	1200 Acres per day	0.25	2	0.0062	52	2.1
Applicator										
Sprays for Aerial application (5)	0.005	0.068	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.038	15	0.00051	630	15.0
Sprays for Aerial application (6)	0.005	0.068		1.50 lb ai per acre	1200 Acres per day	0.13	4	0.0017	180	4.3
Flagger										
Flagging for Sprays application (7)	0.00022	0.007	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.0017	340	0.000053	6100	320.0

[a] Engineering control dermal unit exposure scenarios includes long pants, long shirts, enclosed mixing and loading, Enclosed cockpits, and water soluble packages.
Engineering control inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)

[c] Short-term Dermal MOE = NOAEL (0.56 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Short-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Short-term MOE = 1/ ((1/ Short-term Dermal MOE) + (1/ Short-term Inhalation MOE)).

Table Q8: Occupational Handler Intermediate-Term Risk From Azinphos-Methyl on Miscellaneous (Southern Pine Seed Orchards) at Engineering Control

Exposure Scenario (Scenario #)	Dermal Unit Exposure (mg/lb ai)[a]	Inhalation Unit Exposure (Ug/lb ai)[a]	Crop Group (Crop)	Application Rate	Amount Treated	Dermal Dose (mg/kg/day)[b]	Dermal MOE[c]	Inhalation Dose (mg/kg/day)[d]	Inhalation MOE[e]	Total MOE[f]
Mixer/Loader										
Mixing/Loading Liquids for Aerial application (1)	0.0086	0.083	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.027	6	0.00062	510	5.5
Mixing/Loading Liquids for Aerial application (2)	0.0086	0.083		1.50 lb ai per acre	1200 Acres per day	0.092	2	0.0021	150	1.6
Wettable Powders for Aerial application (3)	0.0098	0.24		1.50 lb ai per acre	350 Acres per day	0.031	5	0.0018	180	4.8
Wettable Powders for Aerial application (4)	0.0098	0.24		1.50 lb ai per acre	1200 Acres per day	0.11	1	0.0062	52	1.4
Applicator										
Sprays for Aerial application (5)	0.005	0.068	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.016	10	0.00051	630	9.4
Sprays for Aerial application (6)	0.005	0.068		1.50 lb ai per acre	1200 Acres per day	0.054	3	0.0017	180	2.8
Flagger										
Flagging for Sprays application (7)	0.00022	0.007	Miscellaneous (Southern Pine Seed Orchards)	1.50 lb ai per acre	350 Acres per day	0.00069	220	0.000053	6100	210.0

[a] Baseline dermal unit exposure scenarios includes long pants, long shirts, gloves, enclosed mixing and loading, Enclosed cockpits, and water soluble packages .
Baseline inhalation unit exposure represents no respirator.

[b] Daily Dermal Dose (mg/kg/day) =Daily dermal exposure (mg/day) = Unit Exposure (mg/lb ai) * Appl. rate (lb ai/acre) * Acres treated (acres/day)./ Body weight (70 kg)*41.7%

[c] Intermediate-term Dermal MOE = NOAEL (0.15 mg/kg/day)/ Daily Dermal Dose (mg/kg/day).

[d] Daily Inhalation Dose (mg/kg/day) =Daily inhalation exposure (mg/day) = Unit Exposure (µg/lb ai) * (1mg/1000 µg) Conversion * Application Rate (lb ai/A) * Acres treated (acres/day)/Body weight (70 kg).

[e] Intermediate-term Inhalation MOE = NOAEL (0.32 mg/kg/day)/ Daily Inhalation Dose (mg/kg/day).

[f] Total Intermediate-term MOE = 1/ ((1/ Intermediate-term Dermal MOE) + (1/ Intermediate-term Inhalation MOE)).

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4) Pesticide Handler Exposure Database Version 1.1 Surrogate Exposure Table (newly organized) and printed August 1998.

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