REREGISTRATION ELIGIBILITY DECISION

Inorganic Halides

LIST D

CASE 4051

ENVIRONMENTAL·PROTECTION·AGENCY
OFFICE·OF·PESTICIDE·PROGRAMS
SPECIAL·REVIEW·AND·REREGISTRATION·DIVISION

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GLOSSARY OF TERMS AND ABBREVIATIONS

a.i.	Active Ingredient
CAS	Chemical Abstracts Service
CSF	Confidential Statement of Formula
EEC	Estimated Environmental Concentration. The estimated pesticide concentration in an environment, such as a terrestrial ecosystem.
EP	End-Use Product
EPA	U.S. Environmental Protection Agency
FDA	Food and Drug Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FFDCA	Federal Food, Drug, and Cosmetic Act
GRAS	Generally Recognized As Safe as designated by FDA
HDT	Highest Dose Tested
LC_{50}	Median Lethal Concentration. A statistically derived concentration of a substance that can be expected to cause death in 50% of test animals. It is usually expressed as the weight of substance per weight or volume of water, air or feed, e.g., mg/l, mg/kg or ppm.
LD_{50}	Median Lethal Dose. A statistically derived single dose that can be expected to cause death in 50% of the test animals when administered by the route indicated (oral, dermal, inhalation). It is expressed as a weight of substance per unit weight of animal, e.g., mg/kg.
LD_{lo}	Lethal Dose-low. Lowest Dose at which lethality occurs
LEL	Lowest Effect Level
LOEL	Lowest Observed Effect Level
MP	Manufacturing-Use Product

GLOSSARY OF TERMS AND ABBREVIATIONS

MPI	Maximum Permissible Intake
MOE	Margin Of Exposure (PAD)
MRID	Master Record Identification (number). EPA's system of recording and tracking studies submitted.
N/A	Not Applicable
NPDES	National Pollutant Discharge Elimination System
NOEL	No Observed Effect Level
OPP	Office of Pesticide Programs
PADI	Provisional Acceptable Daily Intake
ppm	Parts Per Million
Q^*_1	The Carcinogenic Potential of a Compound, Quantified by the EPA's Cancer Risk Model
RED	Reregistration Eligibility Decision
RfD	Reference Dose
RS	Registration Standard
TD	Toxic Dose. The dose at which a substance produces a toxic effect.
TC	Toxic Concentration. The dose at which a substance produces a toxic effect.
TMRC	Theoretical Maximum Residue Contribution.

EXECUTIVE SUMMARY

The Environmental Protection Agency, hereafter referred to as the "Agency" has completed its reregistration assessment of the available information on the pesticide active ingredients sodium bromide and sodium chloride, which make up the case named Inorganic Halides. It has been determined that the currently registered uses will not cause unreasonable risk to humans or the environment and are therefore eligible for reregistration.

Sodium bromide is registered for use as a microbiocide in water recirculation systems associated with pasteurizer/cannery cooling systems, pulp/paper mill water systems, ornamental ponds and aquaria. It is also used in pesticide products to repel moths from clothing and fleas from pets, and their sleeping quarters.

Sodium chloride is one of two active ingredients in a disenfectant used to treat feeding and watering appliances, equipment and premises in poultry operations. Sodium chloride is the sole active ingredient impregnated into polyethylene which is placed around gardens as a barrier to slugs and snails.

The Agency has determined that the uses of these active ingredients as currently registered pose no unreasonable risk to humans or the environment. Although there is some concern about effects to aquatic organisms exposed to the effluent resulting from the industrial use of sodium bromide, such discharge is limited under the Agency's National Pollutant Discharge Elimination System (NPDES) permitting program.

Before reregistering products containing sodium bromide or sodium chloride, the Agency is requiring that product specific data on acute toxicology, chemistry, and efficacy, revised Confidential Statements of Formula, and revised labeling be submitted within eight months of the issuance of this document. After reviewing these data and revised labels and finding them acceptable in accordance with Section 3(c)(5) of FIFRA, the Agency will reregister products. Those products which contain other active ingredients will be eligible for reregistration only when the other active ingredients are determined to be eligible for reregistration.

I. INTRODUCTION

In 1988, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) was amended to accelerate the reregistration of products with active ingredients registered prior to November 1, 1984. The amended Act provides a schedule for the reregistration process to be completed in nine years. There are five phases to the reregistration process. The first four phases of the process focus on identification of data requirements to support the reregistration of an active ingredient and the generation and submission of data to fulfill the requirements. The fifth phase is a review by the U.S. Environmental Protection Agency (referred to as "the Agency") of all data submitted to support reregistration.

FIFRA Section 4(g)(2)(A) states that in Phase 5 "the Administrator shall determine whether pesticides containing such active ingredient are eligible for registration" before calling in data on products and either reregistering products or taking other appropriate regulatory action. Thus, reregistration involves a thorough review of the scientific data base underlying a pesticide's registration. The purpose of the Agency's review is to reassess the potential hazards arising from the currently registered uses of the pesticide; to determine the need for additional data on health and environmental effects; and to determine whether the pesticide meets the "no unreasonable adverse effects" criterion of FIFRA.

This document presents the Agency's decision regarding the reregistration eligibility of the registered uses of sodium chloride and sodium bromide. The document consists of six sections. Section I is the introduction. Section II describes the inorganic halides, their uses, data requirements and regulatory history. Section III discusses the human health and environmental assessment based on the data available to the Agency. Section IV presents the reregistration decision for sodium chloride and sodium bromide. Section V discusses the reregistration requirements for sodium chloride and sodium bromide . Finally, Section VI is the Appendices which support this Reregistration Eligibility Decision. Additional details concerning the Agency's review of applicable data are available on request.[1]

[1]EPA's reviews of data on the set of registered uses considered for EPA's analysis may be obtained from the OPP Public Docket, Field Operations Division (H7506C), Office of Pesticide Programs, EPA, Washington, DC 20460.

II. CASE OVERVIEW

A. Chemical Overview

The following active ingredients are covered by this Reregistration Eligibility Decision:

- **Chemical Name:** Sodium bromide
- **CAS Registry Number:** 7647-15-6
- **Chemical Code:** 013907
- **Empirical Formula:** NaBr
- **Basic Manufacturer:** Great Lakes Chemical Corporation and Ethyl Corporation.

- **Chemical Name:** Sodium Chloride
- **Common Name:** Common salt or Salt
- **CAS Registry Number:** 7647-14-5
- **Chemical Code:** 013905
- **Empirical Formula:** NaCl

B. Use Profile

CHEMICAL: Sodium Bromide

TYPE OF PESTICIDE:
Water disinfectant, Sanitizer, Slimicide (slime-forming algae, bacteria and fungi), Bactericide, Algicide, Fungicide, Mollusc control agent

USE SITES:
AQUATIC NON-FOOD INDUSTRIAL:
Pulp/paper mill water systems (fresh and sea water effluent water systems)

Industrial waste disposal systems (waste water treatment systems)
Air washer water systems
Recirculating and once-through industrial and commercial water cooling systems, Influent systems (flow-through filters, lagoons)
Evaporative condenser water systems
Sewage systems (secondary and tertiary waste water systems)
Heat exchanger water systems
Industrial processing water
Industrial scrubbing system

AQUATIC NON-FOOD RESIDENTIAL:
Swimming pool water systems (spas, hot tubs)
Ornamental ponds/aquaria (fountains)
Domestic/commercial non-potable water (waterbed water and therapeutic pools)

INDOOR FOOD:
Food processing water systems

INDOOR NON-FOOD:
Pasteurizer/warmer/cannery cooling water systems (brewery pasteurizers)

PESTS:
Aquatic environmental bacteria; Slime forming algae, bacteria and fungi; Asiatic clam (*Corbicula*), Barnacle, Zebra mussel (*Dreissena*)

FORMULATION TYPES REGISTERED:

TYPE: End use, Manufacturing use

FORM: Liquid soluble concentrate; Solid soluble concentrate -Tablets, Granules

METHODS AND RATES OF APPLICATION:

TYPES OF TREATMENT:
Water recirculating system treatment, Water once-through system treatment, Water treatment, Sewage wastewater effluent treatment

EQUIPMENT:
Tablet feeder or Not specified

TIMING:
Continuous feed (initial and subsequent), Intermittent (slug, initial and subsequent), Initial, Subsequent/maintenance, Shock/slug or Not specified

RATE OF APPLICATION:
Aquatic non-food industrial:
From less than 1 ppm up to 27 ppm of active ingredient by weight
Aquatic non-food residential:
From less than 1 ppm up to 44 ppm of active ingredient by weight.
(Pulp and paper mills: 0.5 to 5.0 ppm residual bromine)
Indoor non-food:
From 1 ppm up to 13 ppm of active ingredient by weight
Indoor food:
22 ppm of active ingredient by weight

USE PRACTICES LIMITATIONS:
pH: Maintain a minimum of 7.2 up to a maximum of 8.0 (Swimming pools, Spas and Hot tubs)

CHEMICAL: Sodium Chloride

TYPE OF PESTICIDE: Molluscicide, Disinfectant in combination with 20.4% potassium peroxymonosulfate (general/broad spectrum control of animal pathogens), Virucide, Fungicide (mold/mildew), Fungicide/Fungistat (fungi pathogenic to animals)

USE SITES:

INDOOR RESIDENTIAL:
Air treatments (commercial/household)

TERRESTRIAL NON-FOOD & OUTDOOR RESIDENTIAL:
Perimeters of Gardens

INDOOR FOOD:
Poultry (egg/meat) - poultry house premises
Poultry Processing Plant Premises (nonfood contact)

INDOOR NON-FOOD:
Egg Handling Equipment (hatching)
Egg Handling Rooms (hatching)

PESTS:
Snails and slugs; Bacteria- Streptococcus pyogenes, Campylobacter pyforidas, Klebsiella pneumoniae, Salmonella typhimurium, Salmonella choleraesuis, Staphylococcus aureus, Pseudomonas aeruginosa, Staphylococcus epidermidis, Mycoplasma gallisepticum;

Viruses- Newcastle Disease, Infectious Bronchitis, Infectious Bursal Disease, Avian Laryngotracheitis, Avian Influenza, Marek's Disease; **Fungi**- Aspergillus flavus, Aspergillus fumigatus, Candida albicans.

FORMULATION TYPES REGISTERED:

Impregnated Material
(10% sodium chloride)

Soluble Concentrate/Solid
(1.5% sodium chloride with 20.4% potassium peroxymonosulfate)

METHODS AND RATES OF APPLICATION:

Impregnated Material
Place slug and snail barrier around perimeter of garden. Recess into soil 1/2 inch. No application rate specified.

Soluble Concentrate/Solid

Apply a 1% or 2% solution (= 150 ppm NaCl or 300 ppm NaCl) to surfaces to be disinfected. For cleaning and disinfecting, use at a rate of 15 gallons of solution per 1000 sq. ft.; for disinfecting, use at a rate of 7.5 gallons of solution per 1000 sq. ft. Allow 10 minute contact time, then rinse with potable water. For air sanitizing, fog with a 1-2% solution until surfaces are moist. Allow at least 2 hours before entering area that has been fogged.

USE PRACTICES LIMITATIONS

Impregnated Material
Do not use for three consecutive seasons.

Soluble Concentrate/Solid
See Methods and Rates of Application above.

C. Regulatory History

Products containing sodium chloride as an active ingredient were first registered in 1954 for use as wood preservatives, a use which is no longer registered. There are

currently only two products registered containing sodium chloride as an active ingredient.

Products containing sodium bromide as an active ingredient have been registered since 1975. There are currently 32 such products registered.

III. SCIENCE ASSESSMENT

A. Physical Chemistry Assessment

Chemical Name:	Sodium bromide
Empirical Formula:	NaBr
Molecular weight:	102.90
Melting Point:	755°C
Density:	3.210 at 0°C
Solubility:	Sodium bromide is soluble in water.
Dissociation constant:	As a water solution of a strong electrolyte, sodium bromide is 100% dissociated.
pH:	Sodium bromide is a neutral salt. Aqueous solution (46%) has a pH of 7.

Chemical Name:	Sodium Chloride
Empirical Formula:	NaCl
Molecular weight:	58.44
Melting Point:	800°C
Density:	2.165 at 0°C
Solubility:	100 parts by weight of water dissolves 36.0 parts of salt at 20°C; 39.1 parts at 100°C; and 39.2 parts at 107°C(the b. p. of saturated solution); the salt is soluble in glycerine, slightly soluble in alcohol or liquid ammonia and insoluble in concentrated HCl.

B. Human Health Assessment

1. Toxicology Assessment

a. Acute Toxicity

The table below summarizes the toxicity results and categories for technical grade sodium chloride and sodium bromide. Because of its abundance in the environment and low toxicity to humans, no toxicity data were required for sodium chloride. For sodium bromide, acute inhalation data were not required because of the lack of potential inhalation exposure to humans and because of its low toxicity.

Acute Toxicity - Sodium Chloride

Test	Result*	Category
Acute Oral (rat)	3000 mg/kg	III
Acute Dermal (rabbit)	WAIVED	-
Acute Inhalation	WAIVED	-
Eye Irritation	moderate	III
Dermal Irritation	mild	IV
Skin Sensitization	WAIVED	-

*Sax and Lewis, 1989

Acute Toxicity - Sodium Bromide

Test	Result	Category
Acute Oral (rat)[2]	4200 mg/kg (males and females) 4500 mg/kg (females) 3900 mg/kg (males)	III
Acute Dermal (rabbit)[3]	>2000mg/kg	III
Acute Inhalation	WAIVED	-

[2]MRID 14889, 40670804

[3]MRID 148890

Eye Irritation[4]	mild	IV
Dermal Irritation[5]	mild	IV
Skin Sensitization[6]	nonsensitizing	-

b. Other Toxicological Considerations

Sodium chloride, commonly known as salt, sea salt, and table salt, is abundant in nature and primarily used to season or preserve food or in industrial processes. It is consumed daily by humans especially in commercially prepared and preserved foods. It is hypothesized that consumption of salt in excess of the minimum daily requirement may contribute to high blood pressure in some individuals.

Sodium and potassium salts of bromide have been used for many years in prescription and proprietary sedatives. Consequently, the health effects of bromides following oral exposure are well known. The central nervous system depressant effects of the bromide salts in humans occur when administration is repeated daily at dose levels on the order of 1 to 2 grams per day. The effect is slowly reversed when dosing is stopped. Bromide ion acts in the organism by replacing chloride ion and inhibiting depolarization and transmission in nerve cells.

A Salmonella typhimurium reverse mutation assay (Ames assay) was conducted using a 99% technical sodium bromide. Strains TA 1535, TA 1537, TA 1538, TA 98, and TA 100 were tested with and without S9 metabolic activation. No increase in reverse mutations were observed at concentrations up to 5000 ug/plate (MRID 40670808).

An *in vitro* cytogenic assay was performed using human lymphocytes and 99% technical sodium bromide. The tests were negative for chromosomal aberrations at concentrations up to 5000 ug/ml with and without metabolic activation (MRID 40670809).

An unscheduled DNA synthesis assay was conducted using hela cells and 99% sodium bromide. The tests were negative with and without metabolic

[4]MRID 148891

[5]MRID 148892, 40670807

[6]MRID 41019601

activation even at concentrations causing toxicity (25,600 ug/ml) (MRID 40670810).

2. Exposure Assessment

a. Dietary

Dietary exposure to sodium chloride and sodium bromide is not expected to occur as a result of pesticidal uses on food since no currently registered products involve food or animal feed uses.

b. Occupational and Residential

The potential for mixer/loader/applicator exposure exists primarily from the fogging/misting type applications associated with the disenfectant containing sodium chloride and from handling the liquid formulation of sodium bromide. The exposure, however, is considered minimal or low. Since the exposure is minimal and no human toxicity concerns exist, no additional exposure data are required.

3. Risk Assessment

The risks from occupational exposure are considered to be minimal based on the low toxicities of sodium bromide and sodium chloride. The toxicity (or lack of toxicity) of these compounds is well documented in humans. The inherent function of sodium chloride and the metabolic pathways of sodium bromide in humans and domestic animals are known. No additional hazard or exposure data are required for reregistration eligibility. Based on these factors and the limited pesticidal uses, the human risks are considered to be negligible .

C. Environmental Assessment

The Agency did not perform an environmental assessment of sodium chloride. The registered uses, as an ingredient in a poultry cage and equipment disinfectant and as a barrier to slugs around gardens, are insignificant with regard to exposure of sodium chloride to the environment. Sodium chloride occurs abundantly in the natural environment. It is a component of seawater, and in the diets of most terrestrial animals. Although it can be toxic in large amounts, especially to freshwater aquatic organisms, the use of sodium chloride as registered will not result in any significant exposure to non-target organisms in the environment. For the currently registered uses, sodium chloride is present in low amounts, or is used in indoor situations only. Since sodium chloride readily dissolves, no environmental fate assessment was necessary. Therefore, the Agency does not require any environmental fate or ecological effects data for sodium

chloride. The following environmental assessment addresses sodium bromide only.

1. Environmental Fate of Sodium Bromide

Sodium bromide *per se* is a stable salt with no pesticidal activity. The salt dissociates in water to sodium and bromide ions which do not undergo any further degradation. Activators such as chlorine and sodium hypochlorite react with the dissociated bromine ion to form hypobromous acid (HOBr), which is the actual pesticide. The chemistry of hypobromous acid has been well documented in the literature.

Sodium bromide is used in conjunction with chlorine and sodium hypochlorite during waste-water treatment process. Hypobromous acid can oxidize organic and inorganic material present in effluent water and has a reported half life of about 125 hours. Depending on the amount of material present with which hypobromous acid can react, a shorter half life than 125 hours is expected. Another mode of dissipation of hypobromous acid in waste water is via reaction with ammonia to form bromamines. These chemical reactions can result in as much as 50% reduction in the amount of hypobromous within seconds. However, "fresh" hypobromous acid is continuously introduced into the system.

Hypobromous acid is reported in the literature to be a weaker oxidizing agent than hypochlorous acid (HOCl), which is currently registered for use in once-through cooling towers. In equivalent amounts hypobromous acid should pose a lesser environmental risk than hypochlorous acid since the amount of total residual oxidant is lower.

When used in commercial and industrial cooling towers, recirculating cooling-water systems, once-through water systems, effluent water systems such as flow-through filters, heat-exchange water systems, and industrial water scrubbing systems, sodium bromide effectively controls algae, bacteria, and fungal slime. The sodium bromide solution usually is mixed with activators such as chlorine gas, calcium hypochlorite (60% available chlorine), sodium hypochlorite (5% available chlorine), potassium monopersulfate (4.5% active oxygen), and ozone.

The chemistry of the fouling control agent, sodium bromide, is straightforward. The sodium bromide is injected into the service water either before, after, or at the same point as the activator (either 99.9% chlorine gas or 12.5% sodium hypochlorite). No matter what the sodium bromide/activator mole ratio is (usually one-to-one), the active disinfectant is hypobromous acid Because of its superior performance in high pH and ammonia-containing water, hypobromous acid is an effective microbiological control treatment. As hypobromous acid passes through the heat-exchange unit, it is converted back to bromide ion (Br^-) and water. The major portion of the hypobromous acid is converted to bromide ion as it reacts with the fouling organism present in the water. All but a small portion is fed to the service water and subsequently discharged to the source as the bromide ion. A small portion of the hypobromous acid reacts with organic

substances (ultimately producing carbon dioxide and water).

In water, hypobromous acid ionizes to form hydrogen and hypobromite ions, which are powerful oxidants and will oxidize organic substances present in water to form bromide ion and water. At a pH of 8, 88% of the bromine is in the form of hypobromous acid, while only 26% of the chlorine is in the form of hypochlorous acid. In solution, the bromide ion does not hydrolyze and is not altered by ultraviolet radiation (sunlight).

A Tier Ic EEC[7] (estimated environmental concentration) model was conducted by the Agency. A Tier Ic EEC demonstrates the maximum concentration likely to occur immediately downstream from an industrial (point source) discharge site. The EEC's are high exposure case, 1 in 10 year EEC's. For the high exposure case site, it would be expected that the EEC would be equaled or exceeded once every 10 years, i.e., there is a 10% chance in any given year that the EEC will be equaled or exceeded. This is similar to the site and frequency assumptions that are generally being used for agricultural pesticides. EECs for a 50% (typical site) at mean flow were also calculated. Results are as follows:

Tier 1c EECs for Hypobromous Acid

Use Site, Type	High Exposure Case	Typical
Food Processing	270 ppb	0.38 ppb
Pulp and Paper Mills	270 ppb	0.75 ppb
General Industrial Waste Disposal, Air Washer Systems, Sewage Systems	270 ppb	0.38 ppb
Water Cooling Towers, Evaporative Condensers, Heat Exchangers	270 ppb	0.43 ppb

[7] A Tier Ic EEC is a preliminary or lower tier exposure assessment for industrial biocides.

Tier 1c EECs for Hypobromous Acid on a Bromine Basis

Use Site, Type	High Exposure Case	Typical
Food Processing	450 ppb	0.63 ppb
Pulp and Paper Mills	450 ppb	1.2 ppb
General Industrial Waste Disposal, Air Washer Systems, Sewage Systems	450 ppb	0.63 ppb
Water Cooling Towers, Evaporative Condensers, Heat Exchangers	450 ppb	0.72 ppb

A discussion of these results as they pertain to risk assessment follows in the Ecological Risk Assessment section below.

2. Ecological Effects

a. Ecological Hazard

(1) Avian Testing

In order to establish the toxicity of microbiocides to birds, one avian single-dose oral (LD_{50}) study on one species (preferably mallard or bobwhite quail) and one subacute dietary study (LC_{50}) were required. The results follow.

Avian Acute Toxicity

Species	% Test Material (TGAI) (Sodium bromide)	LD_{50}	Conclusion
Bobwhite quail	99.23	> 2250 mg/kg	practically non toxic

Avian Subacute Toxicity

Species	% Test Material	LC_{50}	Conclusion
Bobwhite quail	99.23	> 5633 ppm	practically non toxic
Mallard duck	99.23	> 5633 ppm	practically non toxic

(2) Aquatic Organism Testing

Since hypobromous acid is formed from both bromine chloride and sodium bromide when added to water, studies using technical bromine chloride (100% a.i.) have been used to support the data requirements for aquatic organism testing for sodium bromide. Results from these studies are presented below.

(a) Freshwater Fish Toxicity

The minimum data required to establish toxicity of sodium bromide to fish is a 96-hour acute toxicity study with either a cold water (rainbow trout) or warm water (bluegill sunfish) species.

Species	% Test Material (TGAI) bromine chloride	LC_{50} (as bromine)	Conclusion
Rainbow trout	100	0.31 ppm	highly toxic
Bluegill sunfish	100	0.52 ppm	highly toxic

(b) Freshwater Invertebrate Toxicity

The minimum data required to establish toxicity of sodium bromide to freshwater invertebrates is a 48-hour acute toxicity test.

Species	% Test Material (TGAI) bromine chloride	LC_{50} (as bromine)	Conclusion
Daphnia magna	100	1.07 ppm	highly toxic

(c) Estuarine/Marine Toxicity

Estuarine/marine testing is required to support use in once-through cooling towers, oil recovery drilling muds/packer fluids, secondary oil recovery injection waters, and pulp and paper mills.

Species	% a.i. (TGAI) sodium bromide measured as bromide	96-hour LC_{50} (as bromine)	Conclusion
Sheepshead minnow	46	0.19 ppm	highly toxic
Mysid shrimp	46	0.18 ppm	highly toxic
Eastern oyster	46	0.47 ppm	highly toxic

(d) Aquatic Residue Monitoring

Aquatic residue monitoring studies of once-through cooling systems in freshwater and estuarine environments have been submitted to support registration of sodium bromide.

One study was conducted at a powerplant on the Potomac River in Charles County, MD. At this point, the river is estuarine. A once-through cooling system is employed at the plant. This study was designed to examine bromine chloride as a potential substitute for chlorine when used in condenser cooling systems. Two 15 day trials were made using continuous dose rates of bromine chloride and chlorine. Application rates were 510 and 135 ppb bromine chloride.

The study indicates that the highest discharge residue (104 ppb, measured at the point of discharge) of bromine as hypobromous acid, from an initial continuous application of 510 ppb, exceeds the LOC (Level of Concern - 1/2 LC_{50}) for mysid shrimp, 90 ppb, and sheepshead minnow, 95 ppb.

Another study was conducted at a powerplant in Carroll County, MD. This Publicly Owned Treatment Works (POTW) uses aeration followed by disinfection, and in this study chlorine in the absence of bromide and chlorine with bromide (bromide in both cases from sodium bromide) were used as disinfection.

This study indicates that the highest bromine or hypobromous acid concentration (1081.6 ppb) in the effluent exceeds the LOCs (level of concern) for all aquatic species at the point of discharge. Residue concentrations as high as 135.2 ppb were detected 80 meters downstream. Residues were no longer detectable between 80 and 130 meters downstream.

(e) Disciplinary Review Summation

Sodium bromide has been found to be practically non-toxic to both upland game birds and waterfowl on both an acute oral and a dietary basis. Sodium bromide (as hypobromous acid) is considered highly toxic to both warm water and cold water fish, as well as to aquatic invertebrates and to estuarine/marine organisms.

3. Ecological Risk Assessment

As noted above the Agency conducted a Tier Ic EEC (estimated environmental concentration) for hypobromous acid. The results for the "high exposure case" are comparable with the values obtained from the previously mentioned residue monitoring studies. These studies showed high concentrations of hypobromous acid as far downstream as 80 meters.

The calculated "high exposure case" EEC, i.e. cases of extreme exposure, for hypobromous acid as bromine for all use sites tested is 450 ppb. This EEC exceeds the Levels of Concern (LOCs) for fish (1/2 LC_{50}s = 155 ppb rainbow trout and 260 ppb for the bluegill sunfish), and for estuarine/marine fish and invertebrates (1/2 LC_{50}s = 90 ppb mysid shrimp, 95 ppb sheepshead minnow and 235 ppb eastern oyster), but not for Daphnia magna (1/2 LC_{50} = 535 ppb). Also, the residue monitoring studies, which were conducted with application rates exceeding the permitted levels, indicate that the highest bromine or hypobromous acid concentration (1081.6 ppb) in the effluent exceeds the LOCs for all aquatic species at the point of discharge. Residue concentrations as high as 135.2 ppb were detected 80 meters downstream. Therefore, the Agency presumes risk to freshwater and estuarine fish and invertebrates at the point of discharge and downstream to 80 meters.

However, results for "typical" sites, i.e. industrial sites with median concentrations, resulted in a range from 0.38 ppb to 0.75 ppb for all sites tested. These

values are well below the LOCs for fish and invertebrates as given above. This would indicate that this chemical can be used at typical sites without impact most of the time. Since the discharge of hypobromous acid is regulated by the National Pollutant Discharge Elimination System (NPDES) permit program of the Office of Water, the Agency would be able to control the discharge of hypobromous acid so that toxic levels are avoided on a site-by-site basis . Results from the modeling indicate that hypobromous acid can be used at typical sites most of the time, without producing effluents above levels of concern.

4. Endangered Species

The calculated EEC (450 ppb) exceeds 1/20 the LC_{50} (risk criteria for endangered aquatic species) for rainbow trout (15.5 ppb), for bluegill sunfish (26 ppb), for sheepshead minnow (9.5 ppb), for mysid shrimp (9.0 ppb), for eastern oyster (23.5 ppb) and for Daphnia magna (53.5 ppb). Therefore, the Agency presumes a risk to endangered freshwater and estuarine/marine organism for "high exposure case" discharge of hypobromous acid. Results from the modeling indicate that hypobromous acid can be used at typical use sites, most of the time, without producing effluents above the levels of concern for endangered species.

IV. RISK MANAGEMENT AND REREGISTRATION DECISION

A. Eligibility Decision

Section 4(g)(2)(A) of FIFRA calls for the Agency to determine, after submission of relevant data concerning an active ingredient, whether products containing the active ingredient are eligible for reregistration. As discussed in the previous sections of this document, no generic data were required for sodium chloride due to its nature and the amount of information already available in the public literature. Generic data were required for sodium bromide. Appendix B identifies these generic data, which the Agency reviewed as part of its determination of reregistration eligibility for sodium bromide, and lists the submitted studies that the Agency found acceptable. The Agency has completed its review of these generic data and information, and has determined that the data are sufficient to support reregistration of all products containing either of these active ingredients. This information and data enabled the Agency to determine that sodium bromide and sodium chloride can be used without resulting in unreasonable adverse effects to humans and the environment. The Agency therefore finds that all products containing sodium bromide or sodium chloride as an active ingredient are eligible for reregistration. The reregistration of particular products is addressed in Section V of this document.

The Agency has determined that sodium bromide products and sodium chloride products, labeled and used as specified in this Reregistration Eligibility Decision

document, will not pose unreasonable risks or adverse effects to humans or the environment. Although the Agency has found that all uses of sodium bromide and sodium chloride are eligible for reregistration, it should be understood that the Agency may take appropriate regulatory action, and/or require the submission of additional data to support the registration of products containing sodium bromide and sodium chloride, if new information comes to the Agency's attention or if the data requirements for registration (or the guidelines for generating such data) change.

1. Eligible and Ineligible Uses

The Agency has determined that all uses of all currently registered sodium bromide and sodium chloride products are eligible for reregistration.

V. ACTIONS REQUIRED BY REGISTRANTS

This section specifies the data requirements and responses necessary for the reregistration of both manufacturing-use and end-use products.

A. Manufacturing-Use Products

1. Additional Generic Data Requirements

The generic data base supporting the reregistration of [NAME OF CHEMICAL] for the above eligible uses has been reviewed and determined to be substantially complete.

2. Labeling Requirements for Manufacturing-Use Products

Effluent Discharge Labeling Statements

All manufacturing-use or end-use products that may be contained in an effluent discharged to the waters of the United States or municipal sewer systems must bear the following revised effluent discharge labeling statement.

"Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not

discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA."

All affected products distributed or sold by registrants and distributors (supplemental registrants) must bear the above labeling by October 1, 1995. All products distributed or sold by persons other than registrants or supplemental registrants after October 1, 1997 must bear the correct labeling. Refer to PR Notice 93-10 or 40 CFR 152.46(a)(1) for additional information.

B. End-Use Products

1. Additional Product-Specific Data Requirements

Section 4(g)(2)(B) of FIFRA calls for the Agency to obtain any needed product-specific data regarding the pesticide after a determination of eligibility has been made. The product specific data requirements are listed in Appendix G, the Product Specific Data Call-In Notice.

Registrants must review previous data submissions to ensure that they meet current EPA acceptance criteria (Appendix F; Attachment E) and if not, commit to conduct new studies. If a registrant believes that previously submitted data meet current testing standards, then study MRID numbers should be cited according to the instructions in the Requirement Status and Registrants Response Form provided for each product.

2. Labeling Requirements for End-Use Products

Worker Protection Standard

Any product whose labeling reasonably permits use in the production of an agricultural plant on any farm, forest, nursery, or greenhouse must comply with the labeling requirements of PR Notice 93-7, "Labeling Revisions Required by the Worker Protection Standard (WPS), and PR Notice 9311, "Supplemental Guidance for PR Notice 93-7, which reflect the requirements of EPA' s labeling regulations for worker protection statements (4 0 CFR part 156, subpart K). These labeling revisions are necessary to implement the Worker Protection Standard for Agricultural Pesticides (40 CFR part 170) and must be completed in accordance with, and within the deadlines specified in, PR Notices 93-7 and 93-11. Unless otherwise specifically directed in this RED, all statements required by PR Notices 93-7 and 93-11 are to be on the product label exactly as instructed in those notices.

After April 21, 1994, except as otherwise provided in PR Notices 93-7 and 93-11, all products within the scope of those notices must bear WPS PR Notice complying labeling when they are distributed or sold by the primary registrant or any supplementally registered distributor.

After October 23, 1995, except as otherwise provided in PR Notices 93-7 and 93-11, all products within the scope of those notices must bear WPS PR Notice complying labeling when they are distributed or sold by any person.

The labels and labeling of all products must comply with EPA's current regulations and requirements as specified in 40 CFR §156.10.

Effluent Discharge Labeling Statements

Refer to subsection A. above for labeling requirements for effluent discharge.

C. Existing Stocks

Registrants may generally distribute and sell products bearing old labels/labeling for 26 months from the date of the issuance of this Reregistration Eligibility Decision (RED). Persons other than the registrant may generally distribute or sell such products for 50 months from the date of the issuance of this RED. However, existing stocks time frames will be established case-by-case, depending on the number of products involved, the number of label changes, and other factors. Refer to "Existing Stocks of Pesticide Products; Statement of Policy"; Federal Register, Volume 56, No. 123, June 26, 1991.

The Agency has determined that registrants may distribute and sell [add chemical names here] products bearing old labels/labeling for 26 months from the date of issuance of this RED. Persons other than the registrant may distribute or sell such products for 50 months from the date of the issuance of this RED.

VI. APPENDICES

APPENDIX A. Table of Use Patterns Subject to Reregistration

Appendix A · Case 4051, Chemical 013905 Sodium Chloride

Application Type / Application Timing / Application Equipment / Surface type	Form	Minimum Application Rate (ppm)	Maximum Application Rate (ppm)	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval (Days)	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Limitations
USES ELIGIBLE FOR REREGISTRATION										
FOOD/FEED USES										
Site: Poultry (Egg/Meat) (Use Group: INDOOR FOOD)										
Feeding and watering appliance treatment, NOL, NOL, hard. Efficacy influencing factor: organic soil.	SC/S	150 W	300 W	NS	NS	NA	NA	NA	NA	10 minutes contact time; potable water rinse (non-residual claim); remove animals prior to treatment; remove feed and water prior to treatment.
Surface treatment, NOL, fogger, hard. Efficacy influencing factor: organic soil.	SC/S	150 W	300 W	NS	NS	NA	NA	NA	NA	10 minutes contact time; potable water rinse (non-residual claim); remove animals prior to treatment; remove feed and water prior to treatment.
Site: Poultry Processing Plant Premises (Nonfood Contact) (Use Group: INDOOR FOOD)										
Spray, NOL, sprayer, hard. Efficacy influencing factor: organic soil.	SC/S	150 W	300 W	NS	NS	NA	NA	NA	NA	NA
NON-FOOD/NON-FEED										
Site: Air Treatments (Commercial/Household) (Use Group: INDOOR RESIDENTIAL)										
Spray, NOL, sprayer, hard. Efficacy influencing factor: organic soil.	SC/S	150 W	300 W	NS	NS	NA	NA	NA	NA	NA
Site: Egg Handling Equipment (Hatching) (Use Group: INDOOR NON-FOOD)										
Surface treatment, NOL, NOL, hard. Efficacy influencing factor: organic soil.	SC/S	150 W	300 W	NS	NS	NA	NA	NA	NA	NA
Site: Egg Handling Rooms (Hatching) (Use Group: INDOOR NON-FOOD)										
Surface treatment, NOL, NOL, hard. Efficacy influencing factor: organic soil.	SC/S	150 W	300 W	NS	NS	NA	NA	NA	NA	NA
Site: Gardens* (unspecified) (Use Group: TERRESTRIAL NON-FOOD + OUTDOOR RESIDENTIAL)										
Barrier treatment, when needed, by hand.	IMPR	No calc	No calc	NS	NS	NS	NA	NA	NA	Do not use for three consecutive seasons.

*This use-site term is too general. The product label for this use must be changed to specify garden type(s) for which the product is intended.

Abbreviations used

Header: max - maximum; min - minimum; apps - applications
Form: I - Impregnated material; SC/S Soluble Concentrate/Solid;
Rate: AI - active ingredient; ppm - parts per million; V- volume; W - by weight

NOL - not on label NA - not applicable
No calc - no calculation can be made NS - not specified

APPENDIX A - Case 4051, (Inorganic Halides) Chemical 013907 (Sodium Bromide)

Application Timing / Application Equipment / Application Type / Surface / Type	Form	Minimum Application Rate	Maximum Application Rate	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Pattern Limitations
USES ELIGIBLE FOR REREGISTRATION										
FOOD/FEED USES										
Site: Food Processing Water Systems (Use Group: INDOOR FOOD)										
water treatment, NOL, NOL, NA	SC/L	22 W	22 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Potable water rinse.
NON-FOOD/NON-FEED USES										
Site: Air Washer Water Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
water recirculating system treatment, continuous feed (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, continuous feed (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, intermittent (slug) (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, intermittent (slug) (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, initial, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, subsequent/maintenance, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Commercial/Industrial Water Cooling Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
water recirculating system treatment, continuous feed (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (subsequent), tablet feeder, NA	SC/S[1]	1 W	6 W	NS	NS	NS	NS	NA	NA	Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
Site: Commercial/Industrial Water Cooling Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL) *(Continued from previous page)*										
water recirculating system treatment, continuous feed (initial), NOL, NA	SC/S SC/L	6 W	13 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.

APPENDIX A - Case 4051, [Inorganic Halides] Chemical 013907 [Sodium Bromide]

Application Timing / Application Equipment / Application Type / Surface / Type	Form	Minimum Application Rate	Maximum Application Rate	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Pattern Limitations
USES ELIGIBLE FOR REREGISTRATION										
water recirculating system treatment, continuous feed (subsequent), NOL, NA	SC/S SC/L	2 W	6 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (initial), NOL, NA	SC/S SC/L	6 W	13 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (subsequent), NOL, NA	SC/S SC/L	2 W	6 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, initial, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, subsequent/maintenance, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water once-through system treatment, continuous feed (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water once-through system treatment, continuous feed (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water once-through system treatment, intermittent (slug) (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water once-through system treatment, intermittent (slug) (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water once-through system treatment, initial, NOL, NA	SC/L	< 1 V	24 V	NS	NS	NS	NS	NA	NA	NPDES license restriction. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water once-through system treatment, subsequent/maintenance, NOL, NA	SC/L	< 1 V	24 V	NS	NS	NS	NS	NA	NA	NPDES license restriction. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
Site: Domestic/Commercial Nonpotable Water (Waterbed Water) (Use Group: AQUATIC NON-FOOD RESIDENTIAL)										
water treatment, initial, NOL, NA	SC/L	40 V	40 V	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, subsequent/maintenance, NOL, NA	SC/L	10 V	10 V	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Evaporative Condenser Water Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
water recirculating system treatment, continuous feed (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). NPDES license restriction.
water recirculating system treatment, continuous feed (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). NPDES license restriction.

APPENDIX A · Case 4051, [Inorganic Halides] Chemical 013907 [Sodium Bromide]

Application Timing / Application Equipment / Application Type / Surface / Type	Form	Minimum Application Rate	Maximum Application Rate	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Pattern Limitations
USES ELIGIBLE FOR REREGISTRATION										
water recirculating system treatment, intermittent (slug) (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). NPDES license restriction.
water recirculating system treatment, intermittent (slug) (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). NPDES license restriction.
water recirculating system treatment, continuous feed (initial), NOL, NA	SC/S	6 W	13 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (subsequent), NOL, NA	SC/S	2 W	6 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (initial), NOL, NA	SC/S	6 W	13 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (subsequent), NOL, NA	SC/S	2 W	6 W	NS	NS	NS	NS	NA	NA	NPDES license restriction. Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
Site: Heat Exchanger Water Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
water recirculating system treatment, continuous feed (initial), NOL, NA	SC/L SC/S	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, continuous feed (subsequent), NOL, NA	SC/L SC/S	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, intermittent (slug) (initial), NOL, NA	SC/L SC/S	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, intermittent (slug) (subsequent), NOL, NA	SC/L SC/S	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Heat Exchanger Water Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL) *(Continued from previous page)*										
water recirculating system treatment, initial, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction).
water recirculating system treatment, subsequent/maintenance, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (initial), tablet feeder, NA	SC/S	4 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction).

APPENDIX A - **Case 4051, [Inorganic Halides] Chemical 013907 [Sodium Bromide]**

Application Timing / Application Equipment / Application Type / Surface / Type	Form	Minimum Application Rate	Maximum Application Rate	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Pattern Limitations
USES ELIGIBLE FOR REREGISTRATION										
water recirculating system treatment, continuous feed (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction).
water recirculating system treatment, intermittent (slug) (initial), tablet feeder, NA	SC/S	4 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction).
water recirculating system treatment, intermittent (slug) (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction).
Site: Industrial Processing Water (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
water recirculating system treatment, continuous feed (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, continuous feed (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, intermittent (slug) (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, intermittent (slug) (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, initial, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Industrial Processing Water (Use Group: AQUATIC NON-FOOD INDUSTRIAL) *(Continued from previous page)*										
water treatment, subsequent/maintenance, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, NOL, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Industrial Scrubbing System (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
water recirculating system treatment, continuous feed (initial), NOL, NA	SC/L SC/S	6 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (subsequent), NOL, NA	SC/L SC/S	2 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (initial), NOL, NA	SC/L SC/S	6 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (subsequent), NOL, NA	SC/L SC/S	2 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.

APPENDIX A - Case 4051, [Inorganic Halides] Chemical 013907 [Sodium Bromide]

Application Timing / Application Equipment / Application Type / Surface / Type	Form	Minimum Application Rate	Maximum Application Rate	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Pattern Limitations
USES ELIGIBLE FOR REREGISTRATION										
water recirculating system treatment, initial, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, subsequent/maintenance, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
Site: Industrial Scrubbing System (Use Group: AQUATIC NON-FOOD INDUSTRIAL) *(Continued from previous page)*										
water recirculating system treatment, intermittent (slug) (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
Site: Industrial Waste Disposal Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
water treatment, continuous feed (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, continuous feed (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, intermittent (slug) (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, intermittent (slug) (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, NOL, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, initial, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, subsequent/maintenance, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Ornamental Ponds/Aquaria (Use Group: AQUATIC NON-FOOD RESIDENTIAL)										
water recirculating system treatment, continuous feed (initial), NOL, NA	SC/S	6 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.

APPENDIX A - Case 4051, [Inorganic Halides] Chemical 013907 [Sodium Bromide]

Application Timing / Application Equipment / Application Type / Surface / Type	Form	Minimum Application Rate	Maximum Application Rate	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Pattern Limitations
USES ELIGIBLE FOR REREGISTRATION										
water recirculating system treatment, continuous feed (subsequent), NOL, NA	SC/S	2 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (initial), NOL, NA	SC/S	6 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (subsequent), NOL, NA	SC/S	2 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. NPDES license restriction. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
Site: Ornamental Ponds/Aquaria (Use Group: AQUATIC NON-FOOD RESIDENTIAL) *(Continued from previous page)*										
water recirculating system treatment, continuous feed (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
Site: Pasteurizer/Warmer/Cannery Cooling Water Systems (Use Group: INDOOR NON-FOOD)										
water recirculating system treatment, continuous feed (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (initial), tablet feeder, NA	SC/S	4 W	11 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, intermittent (slug) (subsequent), tablet feeder, NA	SC/S	1 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
water recirculating system treatment, continuous feed (initial), NOL, NA	SC/S SC/L	6 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. NPDES license restriction.
water recirculating system treatment, continuous feed (subsequent), NOL, NA	SC/S SC/L	2 W	6 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. NPDES license restriction.

APPENDIX A - Case 4051, [Inorganic Halides] Chemical 013907 [Sodium Bromide]

Application Timing / Application Equipment / Application Type / Surface / Type	Form	Minimum Application Rate	Maximum Application Rate	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Pattern Limitations
USES ELIGIBLE FOR REREGISTRATION										
water recirculating system treatment, intermittent (slug) (initial), NOL, NA	SC/S SC/L	6 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. NPDES license restriction.
Site: Pasteurizer/Warmer/Cannery Cooling Water Systems (Use Group: INDOOR NON-FOOD) *(Continued from previous page)*										
water recirculating system treatment, intermittent (slug) (subsequent), NOL, NA	SC/S SC/L	2 W	13 W	NS	NS	NS	NS	NA	NA	Preclean claim. Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority. NPDES license restriction.
water recirculating system treatment, initial, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water recirculating system treatment, subsequent/maintenance, NOL, NA	SC/L	< 1 V	12 V	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Pulp/Paper Mill Water Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
water treatment, continuous feed (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, continuous feed (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, intermittent (slug) (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, intermittent (slug) (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, NOL, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, initial, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
water treatment, subsequent/maintenance, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Sewage Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL)										
sewage wastewater effluent treatment, continuous feed (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
sewage wastewater effluent treatment, continuous feed (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
sewage wastewater effluent treatment, intermittent (slug) (initial), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
sewage wastewater effluent treatment, intermittent (slug) (subsequent), NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Sewage Systems (Use Group: AQUATIC NON-FOOD INDUSTRIAL) *(Continued from previous page)*										

APPENDIX A - **Case 4051, [Inorganic Halides] Chemical 013907 [Sodium Bromide]**

Application Timing / Application Equipment / Application Type / Surface / Type	Form	Minimum Application Rate	Maximum Application Rate	Max. # Apps.	Max. # Apps. @ Max. Rate	Min. Interval Between Apps. @ Max. Rate (Days)	Restricted Entry Interval	Geographic Limitations: Allowed	Geographic Limitations: Disallowed	Use Pattern Limitations
USES ELIGIBLE FOR REREGISTRATION										
sewage wastewater effluent treatment, initial, NOL, NA	SC/L	< 1 V	24 V	NS	NS	NS	NS	NA	NA	NPDES license restriction. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
sewage wastewater effluent treatment, subsequent/maintenance, NOL, NA	SC/L	< 1 V	24 V	NS	NS	NS	NS	NA	NA	NPDES license restriction. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public water (NPDES license restriction). Do not discharge effluent containing this pesticide into sewage systems without notifying the sewage treatment plant authority.
sewage wastewater effluent treatment, NOL, NOL, NA	SC/L	NC	NC	NS	NS	NS	NS	NA	NA	NPDES license restriction.
Site: Swimming Pool Water Systems (AQUATIC NON-FOOD RESIDENTIAL)										
water treatment, initial, NOL, NA	SC/S SC/L	< 1 W	44 W	NS	NS	NS	NS	NA	NA	Minimum pH of 7.2 - 7.4. Maximum pH of 7.6 - 7.8. NPDES license restriction.
water treatment, shock/slug, NOL, NA	SC/S	< 1 W	1 W	NS	NS	NS	NS	NA	NA	Minimum pH of 7.2. Maximum pH of 7.6. NPDES license restriction. Precleen claim.
water treatment, subsequent/maintenance, NOL, NA	SC/S SC/L	< 1 W	11 W	NS	NS	NS	NS	NA	NA	Minimum pH of 7.2 - 7.4. Maximum pH of 7.6 - 7.8. NPDES license restriction. Precleen claim.
water treatment, initial, tablet feeder, NA	SC/S	NC	NC	NS	NS	NS	NS	NA	NA	Minimum pH of 7.5. Maximum pH of 8.0. NPDES license restriction. Precleen claim.
water treatment, subsequent/maintenance, tablet feeder, NA	SC/S	NC	NC	NS	NS	NS	NS	NA	NA	Minimum pH of 7.5. Maximum pH of 8.0. NPDES license restriction. Precleen claim.

Abbreviations used:

Header: Max - Maximum; Min - Minimum; Apps - Applications
Form: SC/L - Soluble Concentrate/Liquid; SC/S - Soluble Concentrate/Solid
Rate: AI - Active Ingredient; ppm - Parts Per Million; V - ppm Calculated by Volume; W - ppm Calculated by Weight; NC - ppm Not Calculated

In General: NA - Not Applicable; NOL - Not on the Label; NS - Not Specified

APPENDIX B. Table of the Generic Data Requirements and Studies Used to Make the Reregistration Decision

GUIDE TO APPENDIX B

Appendix B contains listings of data requirements which support the reregistration for active ingredients within the case Inorganic Halides covered by this Reregistration Eligibility Decision Document. It contains generic data requirements that apply to Inorganic Halides in all products, including data requirements for which a "typical formulation" is the test substance.

The data table is organized in the following format:

1. Data Requirement (Column 1). The data requirements are listed in the order in which they appear in 40 CFR Part 158. the reference numbers accompanying each test refer to the test protocols set in the Pesticide Assessment Guidelines, which are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (703) 487-4650.

2. Use Pattern (Column 2). This column indicates the use patterns for which the data requirements apply. The following letter designations are used for the given use patterns:

A	Terrestrial food
B	Terrestrial feed
C	Terrestrial non-food
D	Aquatic food
E	Aquatic non-food outdoor
F	Aquatic non-food industrial
G	Aquatic non-food residential
H	Greenhouse food
I	Greenhouse non-food
J	Forestry
K	Residential
L	Indoor food
M	Indoor non-food
N	Indoor medical
O	Indoor residential

3. Bibliographic citation (Column 3). If the Agency has acceptable data in its files, this column lists the identifying number of each study. This normally is the Master Record Identification (MRID) number, but may be a "GS" number if no MRID number has been assigned. Refer to the Bibliography appendix for a complete citation of the study.

APPENDIX B

Data Supporting Guideline Requirements for the Reregistration of Sodium Bromide

REQUIREMENT		USE PATTERN	CITATION
PRODUCT CHEMISTRY			
61-1	Chemical Identity	All	00160134, 40086301, 40670801
61-2A	Start. Mat. & Mnfg. Process	All	00160134, 40086301, 40670801
61-2B	Formation of Impurities	All	00160134, 40086301, 40670801
62-1	Preliminary Analysis	All	00160134, 40086302, 40670802
62-2	Certification of limits	All	00160134, 40086302, 40670802
62-3	Analytical Method	All	00160134, 40086302, 40670802
63-2	Color	All	00160134, 40086303, 40670803
63-3	Physical State	All	00160134, 40086303, 40670803
63-4	Odor	All	00160134, 40086303, 40670803
63-5	Melting Point	All	00160134, 40086303, 40670803
63-6	Boiling Point	All	00160134, 40086303, 40670803
63-7	Density	All	00160134, 40086303, 40670803
63-8	Solubility	All	00160134, 40086303, 40670803
63-9	Vapor Pressure	All	00160134, 40086303, 40670803
63-10	Dissociation Constant	ALL	00160134, 40086303, 40670803
63-11	Octanol/Water Partition	ALL	00160134, 40086303, 40670803
63-12	pH	ALL	00160134, 40086303, 40670803

APPENDIX B

Data Supporting Guideline Requirements for the Reregistration of Sodium Bromide

REQUIREMENT		USE PATTERN	CITATION
PRODUCT CHEMISTRY			
63-13	Stability	ALL	00160134, 40086303, 40670803
ECOLOGICAL EFFECTS			
71-1A	Acute Avian Oral - Quail/Duck	ALL	40670811
71-2A	Avian Dietary - Quail	ALL	40670812, 40670813
72-1A	Fish Toxicity Bluegill	ALL	40669903
72-1C	Fish Toxicity Rainbow Trout	ALL	40669902
72-2A	Invertebrate Toxicity	ALL	40669904
72-3A	Estuarine Toxicity-Fish	F	40701003
72-3B	Estuarine Toxicity-Mollusk	F	40701002
72-3C	Estuarine Toxicity-Shrimp	F	40701001
72-2A	Invertebrate Toxicity	ALL	40669904
TOXICOLOGY			
81-1	Acute Oral Toxicity - Rat	ALL	00148889, 40670804
81-2	Acute Dermal Toxicity - Rabbit/Rat	ALL	~~00148890,~~ 40670805
81-3	Acute Inhalation Toxicity - Rat	ALL	~~00148891, 40670806~~ Waived

81-4	Primary Eye Irritation - Rabbit	ALL	00148891 40670806 ~~00148892, 40670807~~

APPENDIX B

Data Supporting Guideline Requirements for the Reregistration of Sodium Bromide

REQUIREMENT		USE PATTERN	CITATION
TOXICOLOGY			
81-5	Primary dermal irritation	ALL	~~WAIVED~~ 00148892 - 40670807
81-6	Dermal Sensitization	ALL	WAIVED
84-2A	Gene Muatation-(Ames Test)	ALL	40670808
84-2B	Structural Chromosomal Aberration	ALL	40670809
84-4	Other Genotoxic Effects	ALL	40670810
ENVIRONMENTAL FATE			
161-1	Hydrolysis	ALL	WAIVED
164-2	Aquatic Field Dissipation	F,G	40757001, 41064101

No generic data were required to support sodium chloride.

APPENDIX C. Citations Considered to be Part of the Data Base Supporting the Reregistration of Inorganic Halides

GUIDE TO APPENDIX C

1. CONTENTS OF BIBLIOGRAPHY. This bibliography contains citations of all studies considered relevant by EPA in arriving at the positions and conclusions stated elsewhere in the Reregistration Eligibility Document. Primary sources for studies in this bibliography have been the body of data submitted to EPA and its predecessor agencies in support of past regulatory decisions. Selections from other sources including the published literature, in those instances where they have been considered, are included.

2. UNITS OF ENTRY. The unit of entry in this bibliography is called a "study". In the case of published materials, this corresponds closely to an article. In the case of unpublished materials submitted to the Agency, the Agency has sought to identify documents at a level parallel to the published article from within the typically larger volumes in which they were submitted. The resulting "studies" generally have a distinct title (or at least a single subject), can stand alone for purposes of review and can be described with a conventional bibliographic citation. The Agency has also attempted to unite basic documents and commentaries upon them, treating them as a single study.

3. IDENTIFICATION OF ENTRIES. The entries in this bibliography are sorted numerically by Master Record Identifier, or "MRID number". This number is unique to the citation, and should be used whenever a specific reference is required. It is not related to the six-digit "Accession Number" which has been used to identify volumes of submitted studies (see paragraph 4(d)(4) below for further explanation). In a few cases, entries added to the bibliography late in the review may be preceded by a nine character temporary identifier. These entries are listed after all MRID entries. This temporary identifying number is also to be used whenever specific reference is needed.

4. FORM OF ENTRY. In addition to the Master Record Identifier (MRID), each entry consists of a citation containing standard elements followed, in the case of material submitted to EPA, by a description of the earliest known submission. Bibliographic conventions used reflect the standard of the American National Standards Institute (ANSI), expanded to provide for certain special needs.

   a Author. Whenever the author could confidently be identified, the Agency has chosen to show a personal author. When no individual was identified, the Agency has shown an identifiable laboratory or testing facility as the author. When no author or laboratory could be identified, the Agency has shown the first submitter as the author.

   b. Document date. The date of the study is taken directly from the document. When the date is followed by a question mark, the bibliographer has deduced

the date from the evidence contained in the document. When the date appears as (19??), the Agency was unable to determine or estimate the date of the document.

c. Title. In some cases, it has been necessary for the Agency bibliographers to create or enhance a document title. Any such editorial insertions are contained between square brackets.

d. Trailing parentheses. For studies submitted to the Agency in the past, the trailing parentheses include (in addition to any self-explanatory text) the following elements describing the earliest known submission:

(1) Submission date. The date of the earliest known submission appears immediately following the word "received."

(2) Administrative number. The next element immediately following the word "under" is the registration number, experimental use permit number, petition number, or other administrative number associated with the earliest known submission.

(3) Submitter. The third element is the submitter. When authorship is defaulted to the submitter, this element is omitted.

(4) Volume Identification (Accession Numbers). The final element in the trailing parentheses identifies the EPA accession number of the volume in which the original submission of the study appears. The six-digit accession number follows the symbol "CDL," which stands for "Company Data Library." This accession number is in turn followed by an alphabetic suffix which shows the relative position of the study within the volume.

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MRID	CITATION
00148889	Stroderd, A. (1990) Acute Oral Toxicity (LD50) Study in Albino Rats with Sodium Bromide Solution, 46%: Project Number: WIL-12036. Prepared by WIL Research Laboratories, Inc. 26 p.
00148890	Stroderd, A. (1990) Acute Dermal Toxicity (LD50) Study in Albino Rabbits with Sodium Bromide Solution, 46%. Prepared by WIL Research Laboratories, Inc. 25 p.
00148891	Stroderd, A. (1990) Primary Eye Irritation Study in Albino Rabbits with Sodium Bromide Solution, 46%: Project Number: WIL-12039. Prepared by WIL Research Laboratories, Inc. 20 p.
00148892	Stroderd, A. (1990) Primary Dermal Irritation Study in Albino Rabbits with Sodium Bromide Solution, 46%: Project Number: WIL-12038. Prepared by WIL Research Laboratories, Inc. 17 p.
00160134	Great Lakes Chemical Corp. (1986) Product Chemistry/Manufacturing and Analytical Methods for Sodium Bromide. 8 p.
40086301	Ethyl Corp. (1987) Sodium Bromide Product Chemistry. Unpublished compilation. 27 p.
40086302	Ethyl Corp. (1987) Sodium Bromide Product Chemistry. Unpublished compilation. 18 p.
40086303	Ethyl Corp. (1987) Sodium Bromide Product Chemistry. Unpublished study. 3p.
40669900	Sodium Bromide/Bromine Chloride Industry Task Force (1988) Submission of Toxicology Data to Support the Conditional Registration for Sodium Bromide and Bromine Chloride. Transmittal of 4 studies.
40669901	Fletcher, D. (1988) 21-Day Acute Oral LD50 Study with Sodium Bromide Technical in Mallard Ducks: BLAL Study No. 87DD53. Unpublished study prepared by Bio-Life Associates, Ltd. 27 p.
40669902	Surprenant, D. (1990) Acute Toxicity of Bromine Chloride to Rainbow Trout (Salmo gairdneri): Study Number: 1199.0387.6100.103. Prepared b Springborn Bionomics, Inc. 61 p.

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MRID	CITATION
40669903	Surprenant, D. (1990) Acute Toxicity of Bromine Chloride to Bluegill (Lepomis macrochirus): Study Number: 1199.0387.6100.100. Prepared by Springborn Bionomics, Inc. 36 p.
40669904	Hughes, J. (1990) Acute Toxicity of Bromine Chloride to the Water flea (Daphnia magna): Project Number: 0950-02-1100-1. Prepared by Malcolm Pirnie, Inc. 21p.
40670801	Frances, J., comp. (1988) Product Identity: Sodium Bromide. Unpublished compilation prepared by Dead Sea Bromine Co. 13 p.
40670802	Frances, J., comp. (1988) Analysis and Certification of Product Ingredients: 2270/8806/62. Unpublished compilation prepared by Dead Sea Bromine Co. 14p.
40670803	Frances, J., comp. (1988) Physical and Chemical Characteristics: Sodium Bromide: 2270/8806/63. Unpublished study prepared by Dead Sea Bromine Co. 7 p.
40670804	Gardner, J. (1988) Acute Oral Toxicity to Rats of Sodium Bromide, Technical Grade: Rept. No. 88278D/DSB 8/AC. Unpublished study prepared by Huntingdon Research Centre Ltd. 18 p.
40670805	Kynoch, S.; Parcell, B. (1988) Acute Dermal Toxicity to Rabbits of Sodium Bromide, Technical Grade: Rept. No. 88584D/DSB 9/AC. Unpublished study prepared by Huntingdon Research Centre Ltd. 17 p.
40670806	Liggett, M. (1988) Irritant Effects on the Rabbit Eye of Sodium Bromide Technical Grade: Rept. No. 88201D/DSB 11/SE. Unpublished study prepared by Huntingdon Research Centre Ltd. 9 p.
40670807	Liggett, M. (1988) Irritant Effects on Rabbit Skin of Sodium Bromide Technical Grade: Rept. No. 88111D/DSB 10/SE. Unpublished study prepared by Huntingdon Research Center Ltd. 9 p.

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40670808	Jones, E.; Wilson, L. (1988) Ames Metabolic Activation Test to Assess the Potential Mutagenic Effect of Sodium Bromide: Rept. No. DSB 4/88137. Unpublished study prepared by Huntingdon Research Centre Ltd. 21 p.
40670809	Brooker, P.; Akhurst, L.; Gray, V.; et al. (1988) Sodium Bromide Technical Grade Metaphase Chromosome Analysis of Human Lymphocytes Cultured in vitro: Rept. No. DSB 5/88447. Unpublished study prepared by Huntingdon Research Centre Ltd. 22 p.
40670810	Henderson, L.; Proudlock, R. (1988) Assessment of Unscheduled DNA Repair Synthesis in Mammalian Cells After Exposure to Sodium Bromide (Technical Grade): Rept. No. DSB 6/88454. Unpublished study prepared by Huntingdon Research Centre Ltd. 23 p.
40670811	Grimes, J.; Jaber, M. (1988) Sodium Bromide: An Acute Oral Toxicity Study with Bobwhite: Final Report: Proj. No. 238-103. Unpublished study prepared by Wildlife International Ltd. 19 p.
40670812	Grimes, J.; Jaber, M. (1988) Sodium Bromide: A Dietary LC50 Study with the Mallard: Proj. No. 238-102. Unpublished study prepared by Wildlife International Ltd. 18 p.
40670813	Grimes, J.; Jaber, M. (1988) Sodium Bromide: A Dietary LC50 Study with the Bobwhite: Proj. No. 238-101. Unpublished study prepared by Wildlife International Ltd. 18 p.
40701001	Surprenant, D. (1990) Acute Toxicity of Hypobromous Acid to Mysid Shrimp (Mysidopsis bahia) under flow-through conditions: SLS Study #1199.0188.6190.515. Prepared by Springborn Life Sciences, Inc. 33 p.
40701002	Surprenant, D. (1990) Acute Toxicity of Hypobromous Acid to Eastern Oysters (Crassosstrea virginica) under flow-through conditions: SLS Study No. 1199.0188.6109.504. Prepared by Springborn Life Sciences, Inc. 36 p.
40701003	Surprenant, D. (1990) Acute Toxicity of Hypobromous Acid to Sheepshead Minnow (Cyprinodon variegatus) under flow-through conditions: SLS Study #1199.0188.6190.505. Prepared by Springborn Life Sciences, Inc. 34 p.
40757001	Bongers, L.; O'Connor, T. (1990) Bromine Chloride An Alternative to Chlorine for Fouling Cotrol in Condenser Cooling Systems: Study Number:

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MRID	CITATION
	EPA-600/7-77-053. Prepared by Martin Marietta Corporation. 171 p.
41019601	Kynoch, S.; Parcell, B. (1988) Delayed Contact Hypersensitivity in the Guinea-Pig with Sodium Bromide Technical Grade: 881235D/DSB 30/SS. Unpublished study prepared by Huntingdon Research Centre Ltd. 21 p.
41064101	Enright, A.; Bongers, L. (1989) Residue Monitoring An Evaluation of the Decay and Dissipation of Oxidants Resulting from the Use of Bromine-based Disinfectants for the Treatment of POTW Effluents. Unpublished study prepared by Versar, Inc. 85 p.
42128601	Cowlyn, T. (1991) Sodium Bromide: Determination of Vapour Pressure: Final Report: Lab Project Number: 91/BMP012/0600. Unpublished study prepared by Life Science Research Ltd. and Department of Physical Chemistry at Leeds University. 37 p.
42484201	Van Logten, M.; Rauws, A.; Kroes, R. et al. (1976) Semichronic toxicity studies of sodium bromide in rats on a normal diet amd a low chloride diet. Med. Fac. Landbouw. Rijksuniv. Gent. 41:(2): 1976:1499-1507
42484202	Sangster, B.; Blom J.; Sekhuis, V. (1983) The influence of sodium bromide in man: a study in human volunteers with special emphasis on the endocrine and the central nervous system. Fd. Chem. Toxic. 21(4), 1883:409-419.

BIBLIOGRAPHY

The following are references from the open literature cited in this document:

Clayton, G. D., and Clayton, F. E., eds., 1982. Patty's Industrial Hygiene and Toxicology, 3rd Revised Ed. Wiley Interscience, NY.

Sax, N. I., and Lewis, R. J. Sr, 1989. Dangerous Properties of Industrial Materials, 7th Ed. Van Nostrand Reinhold, New York.

Windholz, Martha, et al., eds., 1983. The Merck Index, Tenth Edition. Merck and Company: Rahway, NJ.

Zendzian, R., 1990. EPA internal memorandum.

APPENDIX D. List of Available Related Documents

The following is a list of available documents related to inorganic halides. It's purpose is to provide a path to more detailed information if it is needed. These accompanying documents are part of the Administrative Record for inorganic halides and are included in the EPA's Office of Pesticide Programs Public Docket.

1. Health and Environmental Effects Science Chapters

2. Detailed Label Usage Information System (LUIS) Report

3. Inorganic Halides RED Fact Sheet

4. PR Notice 86-5 (included in this appendix)

5. PR Notice 91-2 (included in this appendix) pertains to the Label Ingredient Statement

APPENDIX E. PR Notices 86-5 and 91-2

PR Notice 86-5

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

July 29, 1986

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

PR NOTICE 86-5

NOTICE TO PRODUCERS, FORMULATORS, DISTRIBUTORS
AND REGISTRANTS

Attention: Persons responsible for Federal registration of pesticides.

Subject: Standard format for data submitted under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and certain provisions of the Federal Food, Drug, and Cosmetic Act (FFDCA).

I. Purpose

To require data to be submitted to the Environmental Protection Agency (EPA) in a standard format. This Notice also provides additional guidance about, and illustrations of, the required formats.

II. Applicability

This PR Notice applies to all data that are submitted to EPA to satisfy data requirements for granting or maintaining pesticide registrations, experimental use permits, tolerances, and related approvals under certain provisions of FIFRA and FFDCA. These data are defined in FIFRA §10(d)(1). This Notice does not apply to commercial, financial, or production information, which are, and must continue to be, submitted differently under separate cover.

III. Effective Date

This notice is effective on November 1, 1986. Data formatted according to this notice may be submitted prior to the effective date. As of the effective date, submitted data packages that do not conform to these requirements may be returned to the submitter for necessary revision.

IV. Background

On September 26, 1984, EPA published proposed regulations in the Federal Register (49 FR 37956) which include Requirements for Data Submission (40 CFR §158.32), and Procedures for Claims of Confidentiality of Data (40 CFR §158.33). These regulations

specify the format for data submitted to EPA under Section 3 of FIFRA and Sections 408 and 409 of FFDCA, and procedures which must be followed to make and substantiate claims of confidentiality. No entitlements to data confidentiality are changed, either by the proposed regulation or by this notice.

OPP is making these requirements mandatory through this Notice to gain resource-saving benefits from their use before the entire proposed regulation becomes final. Adequate lead time is being provided for submitters to comply with the new requirements.

V. Relationship of this Notice to Other OPP Policy and Guidance

While this Notice contains requirements for organizing and formatting submittals of supporting data, it does not address the substance of test reports themselves. "Data reporting" guidance is now under development in OPP, and will specify how the study objectives, protocol, observations, findings, and conclusions are organized and presented within the study report. The data reporting guidance will be compatible with submittal format requirements described in this Notice.

OPP has also promulgated a policy (PR Notice 86-4 dated April 15, 1986) that provides for early screening of certain applications for registration under FIFRA §3. The objective of the screen is to avoid the additional costs and prolonged delays associated with handling significantly incomplete application packages. As of the effective date of this Notice, the screen will include in its criteria for acceptance of application packages the data formatting requirements described herein.

OPP has also established a public docket which imposes deadlines for inserting into the docket documents submitted in connection with Special Reviews and Registration Standards (see 40 CFR §154.15 and §155.32). To meet these deadlines, OPP is requiring an additional copy of any data submitted to the docket. Please refer to Page 10 for more information about this requirement.

For several years, OPP has required that each application for registration or other action include a list of all applicable data requirements and an indication of how each is satisfied--the statement of the method of support for the application. Typically, many requirements are satisfied by reference to data previously submitted--either by the applicant or by another party. That requirement is not altered by this notice, which applies only to data submitted with an application.

VI. Format Requirements

A more detailed discussion of these format requirements follows the index on the next page, and samples of some of the requirements are attached. Except for the language of the two alternative forms of the Statement of Data Confidentiality Claims (shown in Attachment 3) which cannot be altered, these samples are illustrative. As long as the required information is included and clearly identifiable, the form of the samples may be altered to reflect the submitter's preference.

- INDEX-

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E.	Reference to Previously Submitted Data	9	
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****

A. Organization of Submittal Package

A "submittal package" consists of all studies submitted at the same time for review in support of a single regulatory action, along with a transmittal document and other related administrative material (e.g. the method of support statement, EPA Forms 8570-1, 8570-4, 8570-20, etc.) as appropriate.

Data submitters must organize each submittal package as described in this Notice. The transmittal and any other administrative material must be grouped together in the first physical volume. Each study included in the submittal package must then be bound separately.

Submitters sometimes provide additional materials that are intended to clarify, emphasize, or otherwise comment to help Product Managers and reviewers better understand the submittal.

- If such materials relate to one study, they should be included as an appendix to that study.

- If such materials relate to more than one study (as for example a summary of all studies in a discipline) or to the submittal in general, they must be included in the submittal package as a separate study (with title page and statement of confidentiality claims).

B. Transmittal Document

The first item in each submittal package must be a transmittal document. This document identifies the submitter or all joint submitters; the regulatory action in support of which the package is being submitted--i.e., a registration application, petition, experimental use permit (EUP), §3(c)(2)(B) data call-in, §6(a)(2) submittal, or a special review; the transmittal date; and a list of all individual studies included in the package in the order of their appearance, showing (usually by Guideline reference number) the data requirement(s) addressed by each one. The EPA-assigned number for the regulatory action (e.g. the registration, EUP, or tolerance petition number) should be included in the transmittal document as well, if it is known to the submitter. See Attachment 1 for an example of an acceptable transmittal document.

The list of included studies in the transmittal of a data submittal package supporting a registration application should be subdivided by discipline, reflecting the order in which data requirements appear in 40 CFR 158.

The list of included studies in the transmittal of a data submittal package supporting a petition for tolerance or an application for an EUP should be subdivided into sections A, B, C,.... of the petition or application, as defined in 40 CFR 180.7 and 158.125, (petitions) or Pesticide Assessment Guidelines, Subdivision I (EUPs) as appropriate.

When a submittal package supports a tolerance petition and an application for a registration or an EUP, list the petition studies first, then the balance of the studies. Within these two groups of studies follow the instructions above.

C. Individual Studies

A study is the report of a single scientific investigation, including all supporting analyses required for logical completeness. A study should be identifiable and distinguishable by a conventional bibliographic citation including author, date, and title. Studies generally correspond in scope to a single Guideline requirement for supporting data, with some exceptions discussed in section C.1. Each study included in a submittal package must be bound as a separate entity. (See comments on binding studies on page 9.)

Each study must be consecutively paginated, beginning from the title page as page 1. The total number of pages in the complete study must be shown on the study title page. In addition (to ensure that inadvertently separated pages can be reassociated with the proper study during handling or review) use either of the following:

- Include the total number of pages in the complete study on each page (i.e., 1 of 250, 2 of 250, ...250 of 250).

- Include a company name or mark and study number on each page of the study, e g , Company Name-1986-23. Never reuse a study number for marking the pages of subsequent studies.

When a single study is extremely long, binding it in multiple volumes is permissible so long as the entire study is paginated in a single series, and each volume is plainly identified by the study title and its position in the multi-volume sequence.

C.1 Special Considerations for Identifying Studies

Some studies raise special problems in study identification, because they address Guidelines of broader than normal scope or for other reasons.

a. Safety Studies. Several Guidelines require testing for safety in more than one species. In these cases each species tested should be reported as a separate study, and bound separately.

Extensive supplemental reports of pathology reviews, feed analyses, historical control data, and the like are often associated with safety studies. Whenever possible these should be submitted with primary reports of the study, and bound with the primary study as appendices. When such supplemental reports are submitted independently of the primary report, take care to fully identify the primary report to which they pertain.

Batteries of acute toxicity tests, performed on the same end use product and covered by a single title page, may be bound together and reported as a single study.

b. Product Chemistry Studies. All product chemistry data within a submittal package submitted in support of an end-use product produced from registered manufacturing-use products should be bound as a single study under a single title page.

Product chemistry data submitted in support of a technical product, other manufacturing-use product, an experimental use permit, an import tolerance petition, or an end-use product produced from unregistered source ingredients, should be bound as a single study for each Guideline series (61, 62, and 63) for conventional pesticides, or for the equivalent subject range for biorational pesticides. The first of the three studies in a complete product chemistry submittal for a biochemical pesticide would cover Guidelines 151-10, 151-11, and 151-12; the second would cover Guidelines 151-13, 151-15, and 151-16; the third would cover Guideline 151-17. The first study for a microbial pesticide would cover Guidelines 151-20, 151-21, and 151-22; the second would cover Guidelines 151-23 and 151-25; the third would cover Guideline 151-26.

Note particularly that product chemistry studies are likely to contain Confidential Business Information as defined in FIFRA §10(d)(1)(A), (B), or (C), and if so must be handled as described in section D.3. of this notice.

c. Residue Chemistry Studies. Guidelines 171-4, 153-3, and 153-4 are extremely broad in scope; studies addressing residue chemistry requirements must thus be defined at a level below that of the Guideline code. The general principle, however, of limiting a study to the report of a single investigation still applies fully. Data should be treated as a single study and bound separately for each analytical method, each report of the nature of the residue in a single crop or animal species, and for each report of the magnitude of residues resulting from treatment of a single crop or from processing a single crop. When more than one commodity is derived from a single crop (such as beet tops and beet roots) residue data on all such commodities should be reported as a single study. When multiple field trials are associated with a single crop, all such trials should be reported as a single study.

D. Organization of Each Study Volume

Each complete study must include all applicable elements in the list below, in the order indicated. (Also see Page 17.) Several of these elements are further explained in the following paragraphs. Entries in the column headed "example" cite the page number of this notice where the element is illustrated.

Element	When Required	Example
Study Title Page	Always	Page 12
Statement of Data Confidentiality Claims	One of the two alternative forms of this statement is always required	Page 13
Certification of Good Laboratory Practice	If study reports laboratory work subject to GLP requirements	Page 16
Flagging statements	For certain toxicology studies (When flagging requirements are finalized.)	
Body of Study	Always - with an English language translation if required.	
Study Appendices	At submitter's option	
Cover Sheet to Confidential Attachment	If CBI is claimed under FIFRA §10(d)(1)(A), (B), or (C)	
CBI Attachment	If CBI is claimed under FIFRA §10(d)(1)(A), (B), or (C)	Page 15
Supplemental Statement of Data Confidentiality Claims	Only if confidentiality is claimed on a basis other than FIFRA §10(d)(1)(A), (B), or (C)	Page 14

D.1. Title Page

A title page is always required for each submitted study, published or unpublished. The title page must always be freely releasable to requestors; **DO NOT INCLUDE CBI ON THE TITLE PAGE.** An example of an acceptable title page is on page 12 of this notice. The following information must appear on the title page:

a. Study title. The study title should be as descriptive as possible It must clearly identify the substance(s) tested and correspond to the name of the data requirement as it appears in the Guidelines.

b. Data requirement addressed. Include on the title page the Guideline number(s) of the specific requirement(s) addressed by the study.

c. Author(s). Cite only individuals with primary intellectual responsibility for the content of the study. Identify them plainly as authors, to distinguish them from the performing laboratory, study sponsor, or other names that may also appear on the title page.

d. Study Date. The title page must include a single date for the study. If parts of the study were performed at different times, use only the date of the latest element in the study.

e. Performing Laboratory Identification. If the study reports work done by one or more laboratories, include on the title page the name and address of the performing laboratory or laboratories, and the laboratory's internal project number(s) for the work. Clearly distinguish the laboratory's project identifier from any other reference numbers provided by the study sponsor or submitter.

f. Supplemental Submissions. If the study is a commentary on or supplement to another previously submitted study, or if it responds to EPA questions raised with respect to an earlier study, include on the title page elements a. through d. for the previously submitted study, along with the EPA Master Record Identifier (MRID) or Accession number of the earlier study if you know these numbers. (Supplements submitted in the same submittal package as the primary study should be appended to and bound with the primary study. Do not include supplements to more than one study under a single title page).

g. Facts of Publication. If the study is a reprint of a published document, identity on the title page all relevant facts of publication, such as the journal title, volume, issue, inclusive page numbers, and publication date.

D.2. Statements of Data Confidentiality Claims Under FIFRA §10(d)(1).

Each submitted study must be accompanied by one of the two alternative forms of the statement of Data Confidentiality Claims specified in the proposed regulation in §158.33 (b) and (c) (See Attachment 3). These statements apply only to claims of data confidentiality based on FIFRA §10(d)(1)(A), (B), or (C). Use the appropriate alternative form of the statement either to assert a claim of §10(d)(1) data confidentiality (§158.33(b)) or to waive such a claim (§158.33(c)). In either case, the statement must be signed and dated, and must include the typed name and title of the official who signs it. Do not make CBI claims with respect to analytical methods associated with petitions for tolerances or emergency exemptions (see NOTE Pg 13).

D.3. Confidential Attachment

If the claim is made that a study includes confidential business information as defined by the criteria of FIFRA §10(D)(1)(A), (B), or (C) (as described in D.2. above) all such information must be excised from the body of the study and confined to a separate study-specific Confidential Attachment. Each passage of CBI so isolated must be identified by a reference number cited within the body of the study at the point from which the passage was excised (See Attachment 5).

The Confidential Attachment to a study must be identified by a cover sheet fully identifying the parent study, and must be clearly marked "Confidential Attachment." An appropriately annotated photocopy of the parent study title page may be used as this cover sheet. Paginate the Confidential Attachment separately from the body of the study, beginning with page 1 of X on the title page. Each passage confined to the Confidential Attachment must be associated with a specific cross reference to the page(s) in the main body of the study on which it is cited, and with a reference to the applicable passage(s) of FIFRA §10(d)(1) on which the confidentiality claim is based.

D.4. Supplemental Statement of Data Confidentiality Claims (See Attachment 4)

If you wish to make a claim of confidentiality for any portion of a submitted study other than described by FIFRA §10(d)(1)(A), (B), or (C), the following provisions apply:

- The specific information to which the claim applies must be clearly marked in the body of the study as subject to a claim of confidentiality.

- A Supplemental Statement of Data Confidentiality Claims must be submitted, identifying each passage claimed confidential and describing in detail the basis for the claim. A list of the points to address in such a statement is included in Attachment 4 on Pg 14.

- The Supplemental Statement of Data Confidentiality Claims must be signed and dated and must include the typed name and title of the official who signed it.

D.5. Good Laboratory Practice Compliance Statement

This statement is required if the study contains laboratory work subject to GLP requirements specified in 40 CFR 160. Samples of these statements are shown in Attachment 6.

E. Reference to Previously Submitted Data

DO NOT RESUBMIT A STUDY THAT HAS PREVIOUSLY BEEN SUBMITTED FOR ANOTHER PURPOSE unless EPA specifically requests it. A copy of the title page plus the MRID number (if known) is sufficient to allow us to retrieve the study immediately for review. This prevents duplicate entries in the Agency files, and saves you the cost of sending more copies of the study. References to previously submitted studies should not be included in the transmittal document, but should be incorporated into the statement of the method of support for the application.

F. Physical Format Requirements

All elements in the data submittal package must be on uniform 8 1/2 by 11 inch white paper, printed on one side only in black ink, with high contrast and good resolution. Bindings for individual studies must be secure, but easily removable to permit disassembly for microfilming. Check with EPA for special instructions before submitting data in any medium other than paper, such as film or magnetic media.

Please be particularly attentive to the following points:

- Do not include frayed or torn pages.
- Do not include carbon copies, or copies in other than black ink.
- Make sure that photocopies are clear, complete, and fully readable.
- Do not include oversize computer printouts or fold-out pages.
- Do not bind any documents with glue or binding tapes.
- Make sure that all pages of each study, including any attachments or appendices, are present and in correct sequence.

Number of Copies Required - All submittal packages except those associated with a Registration Standard or Special Review (See Part G below) must be provided in three complete, identical copies. (The proposed regulations specified two copies; three are now being required to expedite and reduce the cost of processing data into the OPP Pesticide Document Management System and getting it into review.)

G. Special Requirements for Submitting Data to the Docket

Data submittal packages associated with a Registration Standard or Special Review must be provided in four copies, from one of which all material claimed as CBI has been excised. This fourth copy will become part of the public docket for the RS or SR case. If no claims of confidentiality are made for the study, the fourth copy should be identical to the other three. When portions of a study submitted in support of an RS or SR are claimed as CBI, the first three copies will include the CBI material as provided in section D of this notice. The following special preparation is required for the fourth copy.

- Remove the "Supplemental Statement of Data Confidentiality Claims".
- Remove the "Confidential Attachment".
- Excise from the body of the study any information you claim as confidential, even if it does not fall within the scope of FIFRA §10(d)(1)(A), (B), or (C). Do not close up or paraphrase text remaining after this excision.
- Mark the fourth copy plainly on both its cover and its title page with the phrase "Public Docket Material - contains no information claimed as confidential".

V. For Further Information

For further information contact John Carley, Chief, Information Services Branch, Program Management and Support Division, (703) 305-5240.

James W. Akerman
Acting Director,
Registration Division

Attachment 1. Sample Transmittal Document
Attachment 2. Sample Title Page for a Newly Submitted Study
Attachment 3. Statements of Data Confidentiality Claims
Attachment 4. Supplemental Statement of Data Confidentiality Claims
Attachment 5. Samples of Confidential Attachments
Attachment 6. Sample Good Laboratory Practice Statements
Attachment 7. Format Diagrams for Submittal Packages and Studies

ATTACHMENT 1

ELEMENTS TO BE INCLUDED IN THE TRANSMITTAL DOCUMENT*

1. Name and address of submitter (or all joint submitters**)

+Smith Chemical Corporation 1234 West Smith Street Cincinnati, OH 98765	-and-	Jones Chemical Company 5678 Wilson Blvd Covington, KY 56789

+Smith Chemical Corp will act as sole agent for all submitters.

2. Regulatory action in support of which this package is submitted

Use the EPA identification number (e.g. 359-EUP-67) if you know it. Otherwise describe the type of request (e.g. experimental use permit, data call-in - of xx-xx-xx date).

3. Transmittal date

4. List of submitted studies

Vol 1. Administrative materials - forms, previous correspondence with Project Managers, and so forth.

Vol 2. Title of first study in the submittal (Guideline No.)

Vol n Title of nth study in the submittal (Guideline No.)

* Applicants commonly provide this information in a transmittal letter. This remains an acceptable practice so long as all four elements are included.

* Indicate which of the joint submitters is empowered to act on behalf of all joint submitters in any matter concerning data compensation or subsequent use or release of the data.

Company Official: _____
Name Signature

Company Name: _____

Company Contact: _____ _____
Name Phone

ATTACHMENT 2

SAMPLE STUDY TITLE PAGE FOR A NEWLY SUBMITTED STUDY

Study Title

(Chemical name) - Magnitude of Residue on Corn

Data Requirement

Guideline 171-4

Author

John C. Davis

Study Completed On

January 5, 1979

Performing Laboratory

ABC Agricultural Laboratories
940 West Bay Drive
Wilmington, CA 39897

Laboratory Project ID

ABC 47-79

Page 1 of X
(X is the total number of pages in the study)

ATTACHMENT 3

STATEMENTS OF DATA CONFIDENTIALITY CLAIMS

1. No claim of confidentiality under FIFRA §10(d)(1)(A),(B), or (C).

STATEMENT OF NO DATA CONFIDENTIALITY CLAIMS

No claim of confidentiality is made for any information contained in this study on the basis of its falling within the scope of FIFRA 6§10(d)(1)(A), (B), or (C).

Company _____

Company Agent: _____ Typed Name _____ Date: _____

_____ Title _____ _____ Signature _____

2. Claim of confidentiality under FIFRA §10(d)(1)(A), (B), or (C).

STATEMENT OF DATA CONFIDENTIALITY CLAIMS

Information claimed confidential on the basis of its falling within the scope of FIFRA §10(d)(1)(A), (B), or (C) has been removed to a confidential appendix, and is cited by cross-reference number in the body of the study.

Company: _____

Company Agent: _____ Typed Name _____ Date: _____

_____ Title _____ _____ Signature _____

NOTE: Applicants for permanent or temporary tolerances should note that it is OPP policy that no permanent tolerance, temporary tolerance, or request for an emergency exemption incorporating an analytical method, can be approved unless the applicant waives all claims of confidentiality for the analytical method. These analytical methods are published in the FDA Pesticide Analytical Methods Manual, and therefore cannot be claimed as confidential. OPP implements this policy by returning submitted analytical methods, for which confidentiality claims have been made, to the submitter, to obtain the confidentiality waiver before they can be processed.

ATTACHMENT 4

SUPPLEMENTAL STATEMENT OF DATA CONFIDENTIALITY CLAIMS

For any portion of a submitted study that is not described by FIFRA §10(d)(1)(A), (B), or (C), but for which you claim confidential treatment on another basis, the following information must be included within a Supplemental Statement of Data Confidentiality Claims:

- Identify specifically by page and line number(s) each portion of the study for which you claim confidentiality.
- Cite the reasons why the cited passage qualifies for confidential treatment.
- Indicate the length of time--until a specific date or event, or permanently--for which the information should be treated as confidential.
- Identify the measures taken to guard against undesired disclosure of this information.
- Describe the extent to which the information has been disclosed, and what precautions have been taken in connection with those disclosures.
- Enclose copies of any pertinent determinations of confidentiality made by EPA, other Federal agencies, of courts concerning this information.
- If you assert that disclosure of this information would be likely to result in substantial harmful effects to you, describe those harmful effects and explain why they should be viewed as substantial.
- If you assert that the information in voluntarily submitted, indicate whether you believe disclosure of this information might tend to lessen the availability to EPA of similar information in the future, and if so, how.

ATTACHMENT 5

EXAMPLES OF SEVERAL CONFIDENTIAL ATTACHMENTS

Example 1. (Confidential word or phrase that has been deleted from the study)

CROSS REFERENCE NUMBER 1 This cross reference number is used in the study in place of the following words or phrase at the indicated volume and page references.

DELETED WORDS OR PHRASE: Ethylene Glycol

PAGE	LINE	REASON FOR THE DELETION	FIFRA REFERENCE
6	14	Identity of Inert Ingredient	§10(d)(1)(C)
12	25	"	"
100	19	"	"

Example 2. (Confidential paragraph(s) that have been deleted from the study)

CROSS REFERENCE NUMBER 5 This cross reference number is used in the study in place of the following paragraph(s) at the indicated volume and page references.

DELETED PARAGRAPH(S):

( )
(Reproduce the deleted paragraph(s) here)
( )

PAGE	LINES	REASON FOR THE DELETION	FIFRA REFERENCE
20.	2-17	Description of the quality control process	§10(d)(1)(C)

Example 3. (Confidential pages that have been deleted from the study)

CROSS REFERENCE NUMBER 7 This cross reference number noted on a place-holder page is used in place of the following whole pages at the indicated volume and page references.

DELETED PAGE(S): are attached immediately behind this page.

PAGE	LINES	REASON FOR THE DELETION	FIFRA REFERENCE
20.	2-17	Description of the product manufacturing process	§10(d)(1)(A)

ATTACHMENT 6.

SAMPLE GOOD LABORATORY PRACTICE STATEMENTS

Example 1.

This study meets the requirements for 40 CFR Part 160

Submitter _____

Sponsor _____

Study Director _____

Example 2.

This study does not meet the requirements of 40 CFR Part 160, and differs in the following ways:

1. _____

2. _____

3. _____

Submitter _____

Sponsor _____

Study Director _____

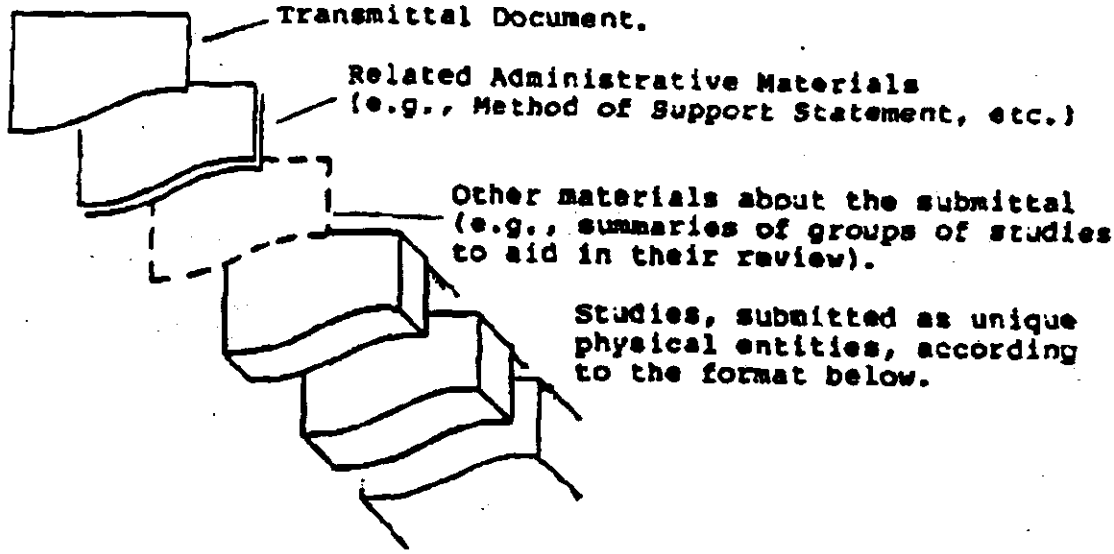
Example 3.

The submitter of this study was neither the sponsor of this study nor conducted it, and does not know whether it has been conducted in accordance with 40 CFR Part 160.

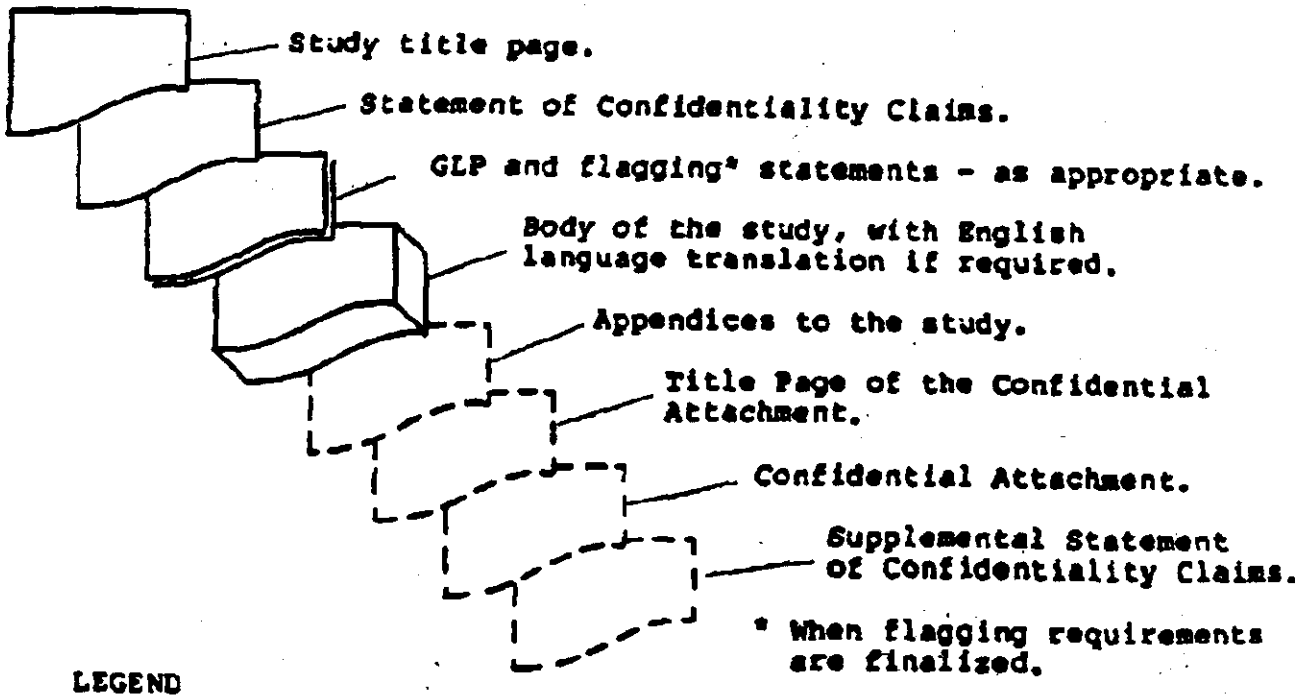
Submitter _____

ATTACHMENT 7.

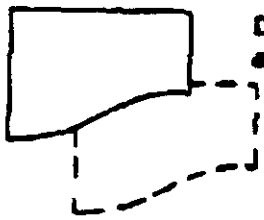
FORMAT OF THE SUBMITTAL PACKAGE



FORMAT OF SUBMITTED STUDIES



LEGEND



Documents which must be submitted as appropriate to meet established requirements.

Documents submitted at submitter's option.

PR Notice 91-2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

PR NOTICE 91-2

NOTICE TO MANUFACTURERS, PRODUCERS, FORMULATORS, AND REGISTRANTS OF PESTICIDES

ATTENTION: Persons Responsible for Federal Registration of Pesticide Products.

SUBJECT: Accuracy of Stated Percentages for Ingredients Statement

I. PURPOSE:

The purpose of this notice is to clarify the Office of Pesticide Program's policy with respect to the statement of percentages in a pesticide's label's ingredient statement. Specifically, the amount (percent by weight) of ingredient(s) specified in the ingredient statement on the label must be stated as the nominal concentration of such ingredient(s), as that term is defined in 40 CFR 158.153(i). Accordingly, the Agency has established the nominal concentration as the only acceptable label claim for the amount of active ingredient in the product.

II. BACKGROUND

For some time the Agency has accepted two different methods of identifying on the label what percentage is claimed for the ingredient(s) contained in a pesticide. Some applicants claimed a percentage which represented a level between the upper and the lower certified limits. This was referred to as the nominal concentration. Other applicants claimed the lower limit as the percentage of the ingredient(s) that would be expected to be present in their product at the end of the product's shelf-life. Unfortunately, this led to a great deal of confusion among the regulated industry, the regulators, and the consumers as to exactly how much of a given ingredient was in a given product. The Agency has established the nominal concentration as the only acceptable label claim for the amount of active ingredient in the product.

Current regulations require that the percentage listed in the active ingredient statement be as precise as possible reflecting good manufacturing practices 40 CFR 156.10(g)(5). The certified limits required for each active ingredient are intended to encompass any such "good manufacturing practice" variations 40

CFR 158.175(c)(3).

The upper and lower certified limits, which must be proposed in connection with a product's registration, represent the amounts of an ingredient that may legally be present 40 CFR 158.175. The lower certified limit is used as the enforceable lower limit for the product composition according to FIFRA section 12(a)(1)(C), while the nominal concentration appearing on the label would be the routinely achieved concentration used for calculation of dosages and dilutions.

The nominal concentration would in fact state the greatest degree of accuracy that is warranted with respect to actual product composition because the nominal concentration would be the amount of active ingredient typically found in the product.

It is important for registrants to note that certified limits for active ingredients are not considered to be trade secret information under FIFRA section 10(b). In this respect the certified limits will be routinely provided by EPA to States for enforcement purposes, since the nominal concentration appearing on the label may not represent the enforceable composition for purposes of section 12(a)(1)(C).

III. REQUIREMENTS

As described below under Unit V. " **COMPLIANCE SCHEDULE,"** all currently registered products as well as all applications for new registration must comply with this Notice by specifying the nominal concentration expressed as a percentage by weight as the label claim in the ingredient(s) statement and equivalence statements if applicable (e.g., elemental arsenic, metallic zinc, salt of an acid). In addition, the requirement for performing sample analyses of five or more representative samples must be fulfilled. Copies of the raw analytical data must be submitted with the nominal ingredient label claim. Further information about the analysis requirement may be found in the 40 CFR 158.170. All products are required to provide certified limits for each active, inert ingredient, impurities of toxicological significance(i.e., upper limit(s) only) and on a case by case basis as specified by EPA. These limits are to be **set based on representative sampling** and chemical analysis(i.e., quality control) of the product.

The format of the ingredient statement must conform to 40 CFR 156-Labeling Requirements For Pesticides and Devices.

After July 1, 1997, all pesticide ingredient StatementS must be changed to nominal concentration.

IV. PRODUCTS THAT REQUIRE EFFICACY DATA

All pesticides are required to be efficacious. Therefore, the certified lower limits may not be lower then the minimum level to achieve efficacy. This is extremely important for products which are intended to control pests which threaten the public health, e.g., certain antimicrobial and rodenticide products. Refer to 40 CFR 153.640.

In those cases where efficacy limits have been established, the Agency will not accept certified lower limits which are below that level for the shelf life of the product.

V. COMPLIANCE SCHEDULE

As described earlier, the purpose of this Notice is to make the registration process more uniform and more manageable for both the agency and the regulated community. It is the Agency's intention to implement the requirements of this notice as smoothly as possible so as not to disrupt or delay the Agency's high priority programs, i.e., reregistration, new chemical, or fast track (FIFRA section 3(c)(3)(B). Therefore, applicants/registrants are expected to comply with the requirements of this Notice as follows:

(1) Beginning July 1, 1991, all new product registrations submitted to the Agency are to comply with the requirements of this Notice.

(2) Registrants having products subject to reregistration under FIFRA section 4(a) are to comply with the requirements of this Notice when specific products are called in by the Agency under Phase V of the Reregistration Program.

(3) All other products/applications that are not subject to (1) and (2) above will have until July 1, 1997, to comply with this Notice. Such applications should note "Conversion to Nominal Concentrations on the application form. These types Or amendments will not be handled as "Fast Track" applications but will be handled as routine requests.

VI. FOR FURTHER INFORMATION

Contact Tyrone Aiken for information or questions concerning this notice on (703) 308-7031.

Anne E. Lindsay

Anne E. Lindsay, Director
Registration Division (H-7505

APPENDIX F. Product Specific Data Call-In

DATA CALL-IN NOTICE

CERTIFIED MAIL

Dear Sir or Madam:

This Notice requires you and other registrants of pesticide products containing the active ingredient identified in Attachment 1 of this Notice, the Data Call-In Chemical Status Sheet, to submit certain product specific data as noted herein to the U.S. Environmental Protection Agency (EPA, the Agency). These data are necessary to maintain the continued registration of your product(s) containing this active ingredient. Within 90 days after you receive this Notice you must respond as set forth in Section III below. Your response must state:

1. How you will comply with the requirements set forth in this Notice and its Attachments A through G; or

2. Why you believe you are exempt from the requirements listed in this Notice and in Attachment 3, Requirements Status and Registrant's Response Form, (see section III-B); or

3. Why you believe EPA should not require your submission of product specific data in the manner specified by this Notice (see section III-D)..

If you do not respond to this Notice, or if you do not satisfy EPA that you will comply with its requirements or should be exempt or excused from doing so, then the registration of your product(s) subject to this Notice will be subject to suspension. We have provided a list of all of your products subject to this Notice in Attachment 2, Data Call-In Response Form, as well as a list of all registrants who were sent this Notice (Attachment 6).

The authority for this Notice is section 3(c)(2)(B) of the Federal Insecticide, Fungicide and Rodenticide Act as amended (FIFRA), 7 U.S.C. section 136a(c)(2)(B). Collection of this information is authorized under the Paperwork Reduction Act by OMB Approval No. 2070-0107 (expiration date 12-31-92).

This Notice is divided into six sections and seven Attachments. The Notice itself contains

information and instructions applicable to all Data Call-In Notices. The Attachments contain specific chemical information and instructions. The six sections of the Notice are:

Section I - Why You Are Receiving This Notice
Section II - Data Required By This Notice
Section III- Compliance With Requirements Of This Notice
Section IV - Consequences Of Failure To Comply With This Notice
Section V - Registrants' Obligation To Report Possible Unreasonable Adverse Effects
Section VI - Inquiries And Responses To This Notice

The Attachments to this Notice are:

1 - Data Call-In Chemical Status Sheet
2 - Product-Specific Data Call-In Response Form
3 - Requirements Status and Registrant's Response Form
4 - EPA Grouping of End-Use Products for Meeting Acute Toxicology Data Requirements for Reregistration
5 - EPA Acceptance Criteria
6 - List of Registrants Receiving This Notice
7 - Cost Share and Data Compensation Forms, and Product Specific Data Report Form

SECTION I. WHY YOU ARE RECEIVING THIS NOTICE

The Agency has reviewed existing data for this active ingredient and reevaluated the data needed to support continued registration of the subject active ingredient. The Agency has concluded that the only additional data necessary are product specific data. No additional generic data requirements are being imposed. You have been sent this Notice because you have product(s) containing the subject active ingredient.

SECTION II. DATA REQUIRED BY THIS NOTICE

II-A. DATA REQUIRED

The product specific data required by this Notice are specified in Attachment 3, Requirements Status and Registrant's Response Form. Depending on the results of the studies required in this Notice, additional testing may be required.

II-B. SCHEDULE FOR SUBMISSION OF DATA

You are required to submit the data or otherwise satisfy the data requirements specified in Attachment 3, Requirements Status and Registrant's Response Form, within the time frames provided.

II-C. TESTING PROTOCOL

All studies required under this Notice must be conducted in accordance with test standards outlined in the Pesticide Assessment Guidelines for those studies for which guidelines have been established.

These EPA Guidelines are available from the National Technical Information Service (NTIS), Attn: Order Desk, 5285 Port Royal Road, Springfield, Va 22161 (tel: 703-487-4650).

Protocols approved by the Organization for Economic Cooperation and Development (OECD) are also acceptable if the OECD-recommended test standards conform to those specified in the Pesticide Data Requirements regulation (40 CFR § 158.70). When using the OECD protocols, they should be modified as appropriate so that the data generated by the study will satisfy the requirements of 40 CFR § 158. Normally, the Agency will not extend deadlines for complying with data requirements when the studies were not conducted in accordance with acceptable standards. The OECD protocols are available from OECD, 1750 Pennsylvania Avenue N.W., Washington, D.C. 20006.

All new studies and proposed protocols submitted in response to this Data Call-In Notice must be in accordance with Good Laboratory Practices [40 CFR Part 160.3(a)(6)].

II-D. REGISTRANTS RECEIVING PREVIOUS SECTION 3(c)(2)(B) NOTICES ISSUED BY THE AGENCY

Unless otherwise noted herein, this Data Call-In does not in any way supersede or change the requirements of any previous Data Call-In(s), or any other agreements entered into with the Agency pertaining to such prior Notice. Registrants must comply with the requirements of all Notices to avoid issuance of a Notice of Intent to Suspend their affected products.

SECTION III. COMPLIANCE WITH REQUIREMENTS OF THIS NOTICE

III-A. SCHEDULE FOR RESPONDING TO THE AGENCY

The appropriate responses initially required by this Notice for product specific data must be submitted to the Agency within 90 days after your receipt of this Notice. Failure to adequately respond to this Notice within 90 days of your receipt will be a basis for issuing a Notice of Intent to Suspend (NOIS) affecting your products. This and other bases for issuance of NOIS due to failure to comply with this Notice are presented in Section IV-A and IV-B.

III-B. OPTIONS FOR RESPONDING TO THE AGENCY

The options for responding to this Notice for product specific data are: (a) voluntary cancellation, (b) agree to satisfy the product specific data requirements imposed by this notice or (c) request a data waiver(s).

A discussion of how to respond if you chose the Voluntary Cancellation option is presented below. A discussion of the various options available for satisfying the product specific data

requirements of this Notice is contained in Section III-C. A discussion of options relating to requests for data waivers is contained in Section III-D.

There are two forms that accompany this Notice of which, depending upon your response, one or both must be used in your response to the Agency. These forms are the Data-Call-In Response Form, and the Requirements Status and Registrant's Response Form, Attachment 2 and Attachment 3. The Data Call-In Response Form must be submitted as part of every response to this Notice. In addition, one copy of the Requirements Status and Registrant's Response Form must be submitted for each product listed on the Data Call-In Response Form unless the voluntary cancellation option is selected or unless the product is identical to another (refer to the instructions for completing the Data Call-In Response Form in Attachment 2). Please note that the company's authorized representative is required to sign the first page of the Data Call-In Response Form and Requirements Status and Registrant's Response Form (if this form is required) and initial any subsequent pages. The forms contain separate detailed instructions on the response options. Do not alter the printed material. If you have questions or need assistance in preparing your response, call or write the contact person(s) identified in Attachment 1.

1. Voluntary Cancellation - You may avoid the requirements of this Notice by requesting voluntary cancellation of your product(s) containing the active ingredient that is the subject of this Notice. If you wish to voluntarily cancel your product, you must submit a completed Data Call-In Response Form, indicating your election of this option. Voluntary cancellation is item number 5 on the Data Call-In Response Form. If you choose this option, this is the only form that you are required to complete.

If you chose to voluntarily cancel your product, further sale and distribution of your product after the effective date of cancellation must be in accordance with the Existing Stocks provisions of this Notice which are contained in Section IV-C.

2. Satisfying the Product Specific Data Requirements of this Notice There are various options available to satisfy the product specific data requirements of this Notice. These options are discussed in Section III-C of this Notice and comprise options 1 through 6 on the Requirements Status and Registrant's Response Form and item numbers 7a and 7b on the Data Call-In Response Form. Deletion of a use(s) and the low volume/minor use option are not valid options for fulfilling product specific data requirements.

3. Request for Product Specific Data Waivers. Waivers for product specific data are discussed in Section III-D of this Notice and are covered by option 7 on the Requirements Status and Registrant's Response Form. If you choose one of these options, you must submit both forms as well as any other information/data pertaining to the option chosen to address the data requirement.

III-C SATISFYING THE DATA REQUIREMENTS OF THIS NOTICE

If you acknowledge on the Data Call-In Response Form that you agree to satisfy the product specific data requirements (i.e. you select item number 7a or 7b), then you must select one of the

six options on the Requirements Status and Registrant's Response Form related to data production for each data requirement. Your option selection should be entered under item number 9, "Registrant Response." The six options related to data production are the first six options discussed under item 9 in the instructions for completing the Requirements Status and Registrant's Response Form. These six options are listed immediately below with information in parentheses to guide registrants to additional instructions provided in this Section. The options are:

(1) I will generate and submit data within the specified time frame (Developing Data)
(2) I have entered into an agreement with one or more registrants to develop data jointly (Cost Sharing)
(3) I have made offers to cost-share (Offers to Cost Share)
(4) I am submitting an existing study that has not been submitted previously to the Agency by anyone (Submitting an Existing Study)
(5) I am submitting or citing data to upgrade a study classified by EPA as partially acceptable and upgradeable (Upgrading a Study)
(6) I am citing an existing study that EPA has classified as acceptable or an existing study that has been submitted but not reviewed by the Agency (Citing an Existing Study)

Option 1, Developing Data -- If you choose to develop the required data it must be in conformance with Agency deadlines and with other Agency requirements as referenced herein and in the attachments. All data generated and submitted must comply with the Good Laboratory Practice (GLP) rule (40 CFR Part 160), be conducted according to the Pesticide Assessment Guidelines (PAG), and be in conformance with the requirements of PR Notice 86-5.

The time frames in the Requirements Status and Registrant's Response Form are the time frames that the Agency is allowing for the submission of completed study reports. The noted deadlines run from the date of the receipt of this Notice by the registrant. If the data are not submitted by the deadline, each registrant is subject to receipt of a Notice of Intent to Suspend the affected registration(s).

If you cannot submit the data/reports to the Agency in the time required by this Notice and intend to seek additional time to meet the requirements(s), you must submit a request to the Agency which includes: (1) a detailed description of the expected difficulty and (2) a proposed schedule including alternative dates for meeting such requirements on a step-by-step basis. You must explain any technical or laboratory difficulties and provide documentation from the laboratory performing the testing. While EPA is considering your request, the original deadline remains. The Agency will respond to your request in writing. If EPA does not grant your request, the original deadline remains. Normally, extensions can be requested only in cases of extraordinary testing problems beyond the expectation or control of the registrant. Extensions will not be given in submitting the 90-day responses. Extensions will not be considered if the request for extension is not made in a timely fashion; in no event shall an extension request be considered if it is submitted at or after the lapse of the subject deadline.

Option 2, Agreement to Share in Cost to Develop Data -- Registrants may only choose this option for acute toxicity data and certain efficacy data and only if EPA has indicated in the attached data tables that your product and at least one other product are similar for purposes of depending

on the same data. If this is the case, data may be generated for just one of the products in the group. The registration number of the product for which data will be submitted must be noted in the agreement to cost share by the registrant selecting this option. If you choose to enter into an agreement to share in the cost of producing the required data but will not be submitting the data yourself, you must provide the name of the registrant who will be submitting the data. You must also provide EPA with documentary evidence that an agreement has been formed. Such evidence may be your letter offering to join in an agreement and the other registrant's acceptance of your offer, or a written statement by the parties that an agreement exists. The agreement to produce the data need not specify all of the terms of the final arrangement between the parties or the mechanism to resolve the terms. Section 3(c)(2)(B) provides that if the parties cannot resolve the terms of the agreement they may resolve their differences through binding arbitration.

Option 3, Offer to Share in the Cost of Data Development -- This option only applies to acute toxicity and certain efficacy data as described in option 2 above. If you have made an offer to pay in an attempt to enter into an agreement or amend an existing agreement to meet the requirements of this Notice and have been unsuccessful, you may request EPA (by selecting this option) to exercise its discretion not to suspend your registration(s), although you do not comply with the data submission requirements of this Notice. EPA has determined that as a general policy, absent other relevant considerations, it will not suspend the registration of a product of a registrant who has in good faith sought and continues to seek to enter into a joint data development/cost sharing program, but the other registrant(s) developing the data has refused to accept your offer. To qualify for this option, you must submit documentation to the Agency proving that you have made an offer to another registrant (who has an obligation to submit data) to share in the burden of developing that data. You must also submit to the Agency a completed EPA Form 8570-32, Certification of Offer to Cost Share in the Development of Data, Attachment 7. In addition, you must demonstrate that the other registrant to whom the offer was made has not accepted your offer to enter into a cost sharing agreement by including a copy of your offer and proof of the other registrant's receipt of that offer (such as a certified mail receipt). Your offer must, in addition to anything else, offer to share in the burden of producing the data upon terms to be agreed or failing agreement to be bound by binding arbitration as provided by FIFRA section 3(c)(2)(B)(iii) and must not qualify this offer. The other registrant must also inform EPA of its election of an option to develop and submit the data required by this Notice by submitting a Data Call-In Response Form and a Requirements Status and Registrant's Response Form committing to develop and submit the data required by this Notice.

In order for you to avoid suspension under this option, you may not withdraw your offer to share in the burdens of developing the data. In addition, the other registrant must fulfill its commitment to develop and submit the data as required by this Notice. If the other registrant fails to develop the data or for some other reason is subject to suspension, your registration as well as that of the other registrant will normally be subject to initiation of suspension proceedings, unless you commit to submit, and do submit the required data in the specified time frame. In such cases, the Agency generally will not grant a time extension for submitting the data.

Option 4, Submitting an Existing Study -- If you choose to submit an existing study in response to this Notice, you must determine that the study satisfies the requirements imposed by this Notice. You may only submit a study that has not been previously submitted to the Agency or previously cited by anyone. Existing studies are studies which predate issuance of this Notice.

Do not use this option if you are submitting data to upgrade a study. (See Option 5).

You should be aware that if the Agency determines that the study is not acceptable, the Agency will require you to comply with this Notice, normally without an extension of the required date of submission. The Agency may determine at any time that a study is not valid and needs to be repeated.

To meet the requirements of the DCI Notice for submitting an existing study, <u>all of the following three criteria must be clearly met</u>:

a. You must certify at the time that the existing study is submitted that the raw data and specimens from the study are available for audit and review and you must identify where they are available. This must be done in accordance with the requirements of the Good Laboratory Practice (GLP) regulation, 40 CFR Part 160. As stated in 40 CFR 160.3(j) " 'raw data' means any laboratory worksheets, records, memoranda, notes, or exact copies thereof, that are the result of original observations and activities of a study and are necessary for the reconstruction and evaluation of the report of that study. In the event that exact transcripts of raw data have been prepared (e.g., tapes which have been transcribed verbatim, dated, and verified accurate by signature), the exact copy or exact transcript may be substituted for the original source as raw data. 'Raw data' may include photographs, microfilm or microfiche copies, computer printouts, magnetic media, including dictated observations, and recorded data from automated instruments." The term "specimens", according to 40 CFR 160.3(k), means "any material derived from a test system for examination or analysis."

b. Health and safety studies completed after May 1984 must also contain all GLP-required quality assurance and quality control information, pursuant to the requirements of 40 CFR Part 160. Registrants must also certify at the time of submitting the existing study that such GLP information is available for post-May 1984 studies by including an appropriate statement on or attached to the study signed by an authorized official or representative of the registrant.

c. You must certify that each study fulfills the acceptance criteria for the Guideline relevant to the study provided in the FIFRA Accelerated Reregistration Phase 3 Technical Guidance and that the study has been conducted according to the Pesticide Assessment Guidelines (PAG) or meets the purpose of the PAG (both available from NTIS). A study not conducted according to the PAG may be submitted to the Agency for consideration if the registrant believes that the study clearly meets the purpose of the PAG. The registrant is referred to 40 CFR 158.70 which states the Agency's policy regarding acceptable protocols. If you wish to submit the study, you must, in addition to certifying that the purposes of the PAG are met by the study, clearly articulate the rationale why you believe the study meets the purpose of the PAG, including copies of any supporting information or data. It has been the Agency's experience that studies completed prior to January 1970 rarely satisfied the purpose of the PAG and that necessary raw data are usually not available for such studies.

If you submit an existing study, you must certify that the study meets all requirements of the criteria outlined above.

If you know of a study pertaining to any requirement in this Notice which does not meet the criteria outlined above but does contain factual information regarding unreasonable adverse effects, you must notify the Agency of such a study. If such study is in the Agency's files, you need only cite it along with the notification. If not in the Agency's files, you must submit a summary and copies as required by PR Notice 86-5.

Option 5, Upgrading a Study -- If a study has been classified as partially acceptable and upgradeable, you may submit data to upgrade that study. The Agency will review the data submitted and determine if the requirement is satisfied. If the Agency decides the requirement is not satisfied, you may still be required to submit new data normally without any time extension. Deficient, but upgradeable studies will normally be classified as supplemental. However, it is important to note that not all studies classified as supplemental are upgradeable. If you have questions regarding the classification of a study or whether a study may be upgraded, call or write the contact person listed in Attachment 1. If you submit data to upgrade an existing study you must satisfy or supply information to correct all deficiencies in the study identified by EPA. You must provide a clearly articulated rationale of how the deficiencies have been remedied or corrected and why the study should be rated as acceptable to EPA. Your submission must also specify the MRID number(s) of the study which you are attempting to upgrade and must be in conformance with PR Notice 86-5.

Do not submit additional data for the purpose of upgrading a study classified as unacceptable and determined by the Agency as not capable of being upgraded.

This option should also be used to cite data that has been previously submitted to upgrade a study, but has not yet been reviewed by the Agency. You must provide the MRID number of the data submission as well as the MRID number of the study being upgraded.

The criteria for submitting an existing study, as specified in Option 4 above, apply to all data submissions intended to upgrade studies. Additionally your submission of data intended to upgrade studies must be accompanied by a certification that you comply with each of those criteria as well as a certification regarding protocol compliance with Agency requirements.

Option 6, Citing Existing Studies -- If you choose to cite a study that has been previously submitted to EPA, that study must have been previously classified by EPA as acceptable or it must be a study which has not yet been reviewed by the Agency. Acceptable toxicology studies generally will have been classified as "core-guideline" or "core minimum." For all other disciplines the classification would be "acceptable." With respect to any studies for which you wish to select this option you must provide the MRID number of the study you are citing and, if the study has been reviewed by the Agency, you must provide the Agency's classification of the study.

If you are citing a study of which you are not the original data submitter, you must submit a completed copy of EPA Form 8570-31, Certification with Respect to Data Compensation Requirements.

Registrants who select one of the above 6 options must meet all of the requirements described in the instructions for completing the Data Call-In Response Form and the Requirements Status and Registrant's Response Form, as appropriate.

III-D REQUESTS FOR DATA WAIVERS

If you request a waiver for product specific data because you believe it is inappropriate, you must attach a complete justification for the request, including technical reasons, data and references to relevant EPA regulations, guidelines or policies. (Note: any supplemental data must be submitted in the format required by PR Notice 86-5). This will be the only opportunity to state the reasons or provide information in support of your request. If the Agency approves your waiver request, you will not be required to supply the data pursuant to section 3(c)(2)(B) of FIFRA. If the Agency denies your waiver request, you must choose an option for meeting the data requirements of this Notice within 30 days of the receipt of the Agency's decision. You must indicate and submit the option chosen on the Requirements Status and Registrant's Response Form. Product specific data requirements for product chemistry, acute toxicity and efficacy (where appropriate) are required for all products and the Agency would grant a waiver only under extraordinary circumstances. You should also be aware that submitting a waiver request will not automatically extend the due date for the study in question. Waiver requests submitted without adequate supporting rationale will be denied and the original due date will remain in force.

IV. CONSEQUENCES OF FAILURE TO COMPLY WITH THIS NOTICE

IV-A NOTICE OF INTENT TO SUSPEND

The Agency may issue a Notice of Intent to Suspend products subject to this Notice due to failure by a registrant to comply with the requirements of this Data Call-In Notice, pursuant to FIFRA section 3(c)(2)(B). Events which may be the basis for issuance of a Notice of Intent to Suspend include, but are not limited to, the following:

1. Failure to respond as required by this Notice within 90 days of your receipt of this Notice.

2. Failure to submit on the required schedule an acceptable proposed or final protocol when such is required to be submitted to the Agency for review.

3. Failure to submit on the required schedule an adequate progress report on a study as required by this Notice.

4. Failure to submit on the required schedule acceptable data as required by this Notice.

5. Failure to take a required action or submit adequate information pertaining to any option chosen to address the data requirements (e.g., any required action or information pertaining to submission or citation of existing studies or offers, arrangements, or arbitration on the sharing of costs or the formation of Task Forces, failure to comply with the terms of an agreement or arbitration concerning joint data development or failure to comply with any terms of a data waiver).

6. Failure to submit supportable certifications as to the conditions of submitted studies, as required by Section III-C of this Notice.

7. Withdrawal of an offer to share in the cost of developing required data.

8. Failure of the registrant to whom you have tendered an offer to share in the cost of developing data and provided proof of the registrant's receipt of such offer or failure of a registrant on whom you rely for a generic data exemption either to:

   a. inform EPA of intent to develop and submit the data required by this Notice on a Data Call-In Response Form and a Requirements Status and Registrant's Response Form;

   b. fulfill the commitment to develop and submit the data as required by this Notice; or

   c. otherwise take appropriate steps to meet the requirements stated in this Notice, unless you commit to submit and do submit the required data in the specified time frame.

9. Failure to take any required or appropriate steps, not mentioned above, at any time following the issuance of this Notice.

IV-B. BASIS FOR DETERMINATION THAT SUBMITTED STUDY IS UNACCEPTABLE

The Agency may determine that a study (even if submitted within the required time) is unacceptable and constitutes a basis for issuance of a Notice of Intent to Suspend. The grounds for suspension include, but are not limited to, failure to meet any of the following:

1. EPA requirements specified in the Data Call-In Notice or other documents incorporated by reference (including, as applicable, EPA Pesticide Assessment Guidelines, Data Reporting Guidelines, and GeneTox Health Effects Test Guidelines) regarding the design, conduct, and reporting of required studies. Such requirements include, but are not limited to, those relating to test material, test procedures, selection of species, number of animals, sex and distribution of animals, dose and effect levels to be tested or attained, duration of test, and, as applicable, Good Laboratory Practices.

2. EPA requirements regarding the submission of protocols, including the incorporation of any changes required by the Agency following review.

3. EPA requirements regarding the reporting of data, including the manner of reporting, the completeness of results, and the adequacy of any required supporting (or raw) data, including, but not limited to, requirements referenced or included in this Notice or contained in PR 86-5. All studies must be submitted in the form of a final report; a preliminary report will not be considered to fulfill the submission requirement.

IV-C EXISTING STOCKS OF SUSPENDED OR CANCELLED PRODUCTS

EPA has statutory authority to permit continued sale, distribution and use of existing stocks of a pesticide product which has been suspended or cancelled if doing so would be consistent with the purposes of the Act.

The Agency has determined that such disposition by registrants of existing stocks for a suspended registration when a section 3(c)(2)(B) data request is outstanding would generally not be consistent with the Act's purposes. Accordingly, the Agency anticipates granting registrants permission to sell, distribute, or use existing stocks of suspended product(s) only in exceptional circumstances. If you believe such disposition of existing stocks of your product(s) which may be suspended for failure to comply with this Notice should be permitted, you have the burden of clearly demonstrating to EPA that granting such permission would be consistent with the Act. You must also explain why an "existing stocks" provision is necessary, including a statement of the quantity of existing stocks and your estimate of the time required for their sale, distribution, and use. Unless you meet this burden the Agency will not consider any request pertaining to the continued sale, distribution, or use of your existing stocks after suspension.

If you request a voluntary cancellation of your product(s) as a response to this Notice and your product is in full compliance with all Agency requirements, you will have, under most circumstances, one year from the date your 90 day response to this Notice is due, to sell, distribute, or use existing stocks. Normally, the Agency will allow persons other than the registrant such as independent distributors, retailers and end users to sell, distribute or use such existing stocks until the stocks are exhausted. Any sale, distribution or use of stocks of voluntarily cancelled products containing an active ingredient for which the Agency has particular risk concerns will be determined on case-by-case basis.

Requests for voluntary cancellation received after the 90 day response period required by this Notice will not result in the Agency granting any additional time to sell, distribute, or use existing stocks beyond a year from the date the 90 day response was due unless you demonstrate to the Agency that you are in full compliance with all Agency requirements, including the requirements of this Notice. For example, if you decide to voluntarily cancel your registration six months before a 3 year study is scheduled to be submitted, all progress reports and other information necessary to establish that you have been conducting the study in an acceptable and good faith manner must have been submitted to the Agency, before EPA will consider granting an existing stocks provision.

SECTION V. REGISTRANTS' OBLIGATION TO REPORT POSSIBLE UNREASONABLE ADVERSE EFFECTS

Registrants are reminded that FIFRA section 6(a)(2) states that if at any time after a pesticide is registered a registrant has additional factual information regarding unreasonable adverse effects on the environment by the pesticide, the registrant shall submit the information to the Agency. Registrants must notify the Agency of any factual information they have, from whatever source, including but not limited to interim or preliminary results of studies, regarding unreasonable adverse effects on man or the environment. This requirement continues as long as the products are registered by the Agency.

SECTION VI. INQUIRIES AND RESPONSES TO THIS NOTICE

If you have any questions regarding the requirements and procedures established by this Notice, call the contact person(s) listed in Attachment 1, the Data Call-In Chemical Status Sheet.

All responses to this Notice (other than voluntary cancellation requests and generic data exemption claims) must include a completed Data Call-In Response Form and a completed Requirements Status and Registrant's Response Form (Attachment 2 and Attachment 3 for product specific data) and any other documents required by this Notice, and should be submitted to the contact person(s) identified in Attachment 1. If the voluntary cancellation or generic data exemption option is chosen, only the Data Call-In Response Form need be submitted.

The Office of Compliance Monitoring (OCM) of the Office of Pesticides and Toxic Substances (OPTS), EPA, will be monitoring the data being generated in response to this Notice.

Sincerely yours,

Peter Caulkins for
Daniel M. Barolo, Director
Special Review and
Reregistration Division

Attachments

1 - Data Call-In Chemical Status Sheet
2 - Product-Specific Data Call-In Response Form
3 - Requirements Status and Registrant's Response Form
4 - EPA Grouping of End-Use Products for Meeting Acute Toxicology Data Requirements for Reregistration
5 - EPA Acceptance Criteria
6 - List of Registrants Receiving This Notice
7 - Cost Share and Data Compensation Forms, and Product Specific Data Report Form

Attachment 1. Chemical Status Sheet

INORGANIC HALIDES DATA CALL-IN CHEMICAL STATUS SHEET

INTRODUCTION

You have been sent this Product Specific Data Call-In Notice because you have product(s) containing inorganic halides .

This Product Specific Data Call-In Chemical Status Sheet, contains an overview of data required by this notice, and point of contact for inquiries pertaining to the reregistration of inorganic halides . This attachment is to be used in conjunction with (1) the Product Specific Data Call-In Notice, (2) the Product Specific Data Call-In Response Form (Attachment 2), (3) the Requirements Status and Registrant's Form (Attachment 3), (4) EPA's Grouping of End-Use Products for Meeting Acute Toxicology Data Requirement (Attachment 4), (5) the EPA Acceptance Criteria (Attachment 5), (6) a list of registrants receiving this DCI (Attachment 6) and (7) the Cost Share and Data Compensation Forms in replying to this inorganic halides Product Specific Data Call-In (Attachment 7). Instructions and guidance accompany each form.

DATA REQUIRED BY THIS NOTICE

The additional data requirements needed to complete the database for inorganic halides are contained in the Requirements Status and Registrant's Response, Attachment 3. The Agency has concluded that additional data on inorganic halides are needed for specific products. These data are required to be submitted to the Agency within the time frame listed. These data are needed to fully complete the reregistration of all eligible inorganic halides products.

INQUIRIES AND RESPONSES TO THIS NOTICE

If you have any questions regarding the generic database of inorganic halides , please contact Mark Wilhite at (703) 308-8586.

If you have any questions regarding the product specific data requirements and procedures established by this Notice, please contact C.P. Moran (703) 308-8590

All responses to this Notice for the Product Specific data requirements should be submitted to:

Accelerated Reregistration Branch, Chemical Review Manager Team 81
Product Reregistration Branch
Special Review and Reregistration Branch 7508W

Office of Pesticide Programs
U.S. Environmental Protection Agency
Washington, D.C. 20460

RE: **Inorganic Halides**

Attachment 2. Product Specific Data Call-In Response Forms (Form A inserts) Plus Instructions

INSTRUCTIONS FOR COMPLETING THE "DATA CALL-IN RESPONSE" PRODUCT SPECIFIC DATA

Item 1-4. Already completed by EPA.

Item 5. If you wish to voluntarily cancel your product, answer "yes". If you ch[illegible] option, you will not have to provide the data required by the Data Call-In Notice an[illegible] you will not have to complete any other forms. Further sale and distribution of your product after the effective date of cancellation must be in accordance with the Existing Stocks provision of the Data Call-In Notice (Section IV-C).

Item 6. Not applicable since this form calls in product specific data only. However, if your product is identical to another product and you qualify for a data exemption, you must respond with "yes" to Item 7a (MUP) or 7B (EUP) on this form, provide the EPA reregistration numbers of your source (s); you would not complete the requirements status and registrant's response" form. Examples of such products include repackaged products and Special Local Needs (Section 24c) products which are identical to federally registered products.

Item 7a. For each manufacturing use product (MUP) for which you wish to maintain registration, you must agree to satisfy the data requirements by responding "yes."

Item 7b. For each end use product (EUP) for which you wish to maintain registration, you must agree to satisfy the data requirements by responding "yes." if you are requesting a data waiver, answer "yes" here; in addition, on the "Requirements Status and Registrant's Response" form under Item 9, you must respond with option 7 (Waiver Request) for each study for which you are requesting a waiver. See item 6 with regard to identical products and data exemptions.

Items 8-11. Self-explanatory.

Note: You may provide additional information that does not fit on this form in a signed letter that accompanies this form. For example, you may wish to report that your product has already been transferred to another that you have already voluntarily cancelled this product. For these cases, please supply all relevant details so that EPA can ensure that its records are correct.

Attachment 3. Product Specific Requirement Status and Registrant's Response Forms (Form B inserts) and Instructions

INSTRUCTIONS FOR COMPLETING THE "REQUIREMENTS STATUS AND REGISTRANT'S RESPONSE" FORM FOR PRODUCT SPECIFIC DATA

Item 1-3. Completed by EPA. Note the unique identifier number assigned by EPA in item 3. This number must be used in the transmittal document for any data submissions in response to this Data Call-In Notice.

Item 4. The guidelines reference numbers of studies required to support the product's continued registration are identified. These guidelines, in addition to the requirements specified in the Notice, govern the conduct of the required studies. Note that series 61 and 62 in product chemistry are now listed under 40 CFR 158.155 through 158.180, Subpart c.

Item 5. The study title associated with the guideline reference number is identified.

Item 6. The use patters (s) of the pesticide associated with the product specific requirements is (are) identified. For most product specific data requirements, all use patterns are covered by the data requirements. In the case of efficacy data, the required studies only pertain to products which have the use sites and/ or pests indicated.

Item 7. The substance to be tested is identified by EPA. For product specific data, the product as formulated for sale and distribution is the test substance, except in rare cases.

Item 8. The due date for submission of each study is identified. It is normally based on 8 months after issuance of the Reregistration Eligibility Documents unless EPA determines that a longer time period is necessary.

Item 9. Enter Only one of the following response codes for each data requirement to show how you intend to comply with the data requirements listed in this table. Fuller descriptions of each option are contained in the Data Call-In Notice.

1. I will generate and submit data by the specified due date (Developing Data). By indicating that I have chosen this option, I certify that I will comply with all the requirements pertaining to the conditions for submittal of this study as outlined in the Data Call-In Notice.

2. I have entered into an agreement with one or more registrants to develop data jointly (Cost Sharing). I am submitting a copy of this agreement. I understand that this option is available on for acute toxicity or certain efficacy data and only if EPA indicates in an attachment to this notice that my product is similar. Enough to another product to qualify for this option. I certify that another party in the agreement is committing to submit or provide the required data; if the required study is not submitted on time, my product my be subject to suspension.

3. I have made offers to share in the cost to develop data (Offers to Cost Share).

I understand that this option is available only for acute toxicity or certain efficacy data and only if EPA indicates in an attachment to this Data Call-In Notice that my product is similar enough to another product to qualify for this option. I am submitting evidence that I have made an offer to another registrant (who has an obligation to submit data) to share in the cost of that data. I am also submitting a completed " Certification of offer to Cost Share in the Development Data" form. I am including a copy of my offer and proof of the other registrant's receipt of that offer. I am identifying the party which is committing to submit or provide the require data; if the required study is not submitted on time, my product may be subject to suspension. I understand that other terms under Option 3 in the Data Call-In Notice (Section III-C.1.) apply as well.

4. By the specified due date, I will submit an existing study that has not been submitted previously to the Agency by anyone (submitting an Existing Study). I certify that this study will meet all the requirements for submittal of existing data outlined in option 4 in the Data Call-In Notice (Section III-C.1.) and will meet the attached acceptance criteria (for acute toxicity and product chemistry data). I will attach the needed supporting information along with this response. I also certify that I have determined that this study will fill the data requirement for which I have indicated this choice.

5. By the specified due date, I will submit or cite data to upgrade a study classified by the Agency as partially acceptable and upgrade (upgrading a study). I will submit evidence of the Agency's review indicating that the study may be upgraded and what information is required to do so. I will provide the MRID or Accession number of the study at the due date. I understand that the conditions for this Option outlined Option 5 in the Data Call-In Notice (Section III-C.1.) apply.

6. By the specified due date, I will cite an existing study that the Agency has classified as acceptable or an existing study that has been submitted but not reviewed by the Agency (Citing an Existing Study). If I am citing another registrant's study, I understand that this option is available only for acute toxicity or certain efficacy data and only if the cited study was conducted on my product, an identical product or a product which EPA has "grouped" with one or more other products for purposes of depending on the same data. I may also choose this option if I am citing my own data. (In either case, I will provide the MRID or Accession number (s) number (s) for the cited data on a "Product Specific Data Report" form or in a similar format. If I cite another registratrant's data, I will submit a completed "Certification With Respect To Data Compensation Requirements" form.)

7. I request a waiver for this study because it is inappropriate for my product (Waiver Request). I am attaching a complete justification for this request, including technical reasons, data and references to relevant EPA regulations, guidelines or policies. [Note: any supplemental data must be submitted in the format required by P.R. Notice 86-5]. I understand that this is my only opportunity to state the reasons or provide information in support of my request. If the Agency approves my waiver

request, I will not be require to supply the data pursuant to Section 3(c) (2) (B) of FIFRA. If the Agency denies my waiver request, I must choose a method of meeting the data requirements of this Notice by the due date stated by this Notice. In this case, I must, within 30 days of my receipt of the Agency's written decision, submit a revised "Requirements Status chosen. I also understand that the deadline for submission of data as specified by the original data cal-in notice will not change.

Items 10-13. Self-explanatory.

NOTE: You may provide additional information that does not fit on this form in a signed letter that accompanies this form. For example, you may wish to report that your product has already been transferred to another company or that you have already voluntarily cancelled this product. For these cases, please supply all relevant details so that EPA can ensure that its records are correct.

Attachment 4. EPA Batching of End-Use Products for Meeting Data Requirements for Reregistration

EPA'S BATCHING OF PRODUCTS CONTAINING SODIUM BROMIDE AND SODIUM CHLORIDE (INORGANIC HALIDES) FOR MEETING ACUTE TOXICITY DATA REQUIREMENTS FOR REREGISTRATION

In an effort to reduce the time, resources and number of animals needed to fulfill the acute toxicity data requirements for reregistration of products containing the active ingredients sodium bromide or sodium chloride, the Agency has batched products which can be considered similar for purposes of acute toxicity. Factors considered in the sorting process include each product's active and inert ingredients (identity, percent composition and biological activity), type of formulation (e.g., emulsifiable concentrate, aerosol, wettable powder, granular, etc.), and labeling (e.g., signal word, use classification, precautionary labeling, etc.). Note that the Agency is not describing batched products as "substantially similar" since some products within a batch may not be considered chemically similar or have identical use patterns.

Using available information, batching has been accomplished by the process described in the preceding paragraph. Frequently acute toxicity data on individual products has been found to be incom- plete. Notwithstanding the batching process, the Agency reserves the right to require, at any time, acute toxicity data for an individual product should the need arise.

Registrants of products within a batch may choose to cooper- atively generate, submit or cite a single battery of six acute toxicological studies to represent all the products within that batch. It is the registrants' option to participate in the process with all other registrants, only some of the other registrants, or only their own products within a batch, or to generate all the required acute toxicological studies for each of their own pro- ducts. If a registrant chooses to generate the data for a batch, he/she must use one of the products within the batch as the test material. If a registrant chooses to rely upon previously sub- mitted acute toxicity data, he/she may do so provided that the data base is complete and valid by today's standards (see acceptance criteria attached), the formulation tested is considered by EPA to be similar for acute toxicity, and the formulation has not been significantly altered since submission and acceptance of the acute toxicity data. Regardless of whether new data is generated or existing data is cited, the registrant must clearly identify the material tested by its EPA registration number. If more than one Confidential Statement Of Formula (CSF) exists for a product registration, the registrant must indicate the formulation actually tested by identifying the corresponding CSF.

In deciding how to meet the product specific data require- ments, registrants must follow the directions given in the Data Call-In Notice and its attachments appended to the RED. The DCI Notice contains two response forms which are to be completed and submitted to the Agency within 90 days of receipt. The first form, "Data Call-In Response," asks whether the registrant will meet the data requirements for each product. The second form, "Requirements Status and Registrant's Response," lists the product specific data required for each product, including the standard six acute toxic- ity tests. A registrant who wishes to participate in a batch must decide whether he/she will provide the data or depend on someone else to do so. If a registrant supplies the data to support a batch of products, he/she must select one of the following options: Developing Data (Option 1), Submitting an Existing Study (Option 4), Upgrading an Existing Study (Option 5) or Citing an Existing Study (Option 6). If a registrant depends on another's data, he/she must choose among: Cost Sharing (Option 2), Offers to Cost Share (Option 3) or Citing an Existing Study (Option 6). If a registrant does not want to participate in a batch, the choices are Options 1, 4, 5 or 6. However, a registrant should know that choosing not to

participate in a batch does not preclude other registrants in the batch from citing his/her studies and offering to cost share (Option 3) those studies.

Table I indicates 3 batches including 29 products containing the active ingredient sodium bromide.

Table I.

Batch No.	EPA Reg. No.	% Sodium Bromide (NaBr), And Any Other Active Ingredient	Formulation
1	1448-345	40.0 NaBr	Ready-To-Use-Solution
	3377-25	40.0 NaBr	Soluble Concentrate
	3377-28	45.0 NaBr	Techical Chemical
	3377-29	45.0 NaBr	Soluble Concentrate
	3377-32	40.0 NaBr	Technical Chemical
	3432-58	35.0 NaBr	Ready-To-Use-Solution
	3525-127	32.18 NaBr	Ready-To-Use-Solution
	5785-66	46.0 NaBr	Ready-To-Use-Solution
	5785-67	46.0 NaBr	Formulation Intermediate
	5785-80	15.0 NaBr	Ready-To-Use-Solution
	7364-30	32.18 NaBr	Ready-To-Use-Solution
	8622-49	38.0 NaBR	Ready-To-Use-Solution
	42291-3	32.18 NaBr	Granular
	45309-43	35.0 NaBr	Ready-To-Use-Solution
2	5785-76	38.0 NaBr	Ready-To-Use-Solution
	5785-78	97.0 NaBr	Formulation Intermediate
	5785-79	42.8 NaBr	Ready-To-Use-Solution
2 Con't.	5785-81	40.0 NaBr	Ready-To-Use-Solution
	8622-45	98.0 NaBr	Formulation Intermediate
	8622-51	98.0 NaBr	Formulation Intermediate
3	935-60	4.0 NaBr 96.0 Sodium dichloro-isocyanurate dihydrate	Granular
	935-70	7.0 NaBr 89.0 Trichloro-s-triazine-trione	Pelleted/tableted
	935-71	7.0 NaBr 89.0 Sodium dichloro-s-triazinetrione	Granular

Batch No.	EPA Reg. No.	% Sodium Bromide (NaBr), And Any Other Active Ingredient	Formulation
	935-73	7.0 NaBr 92.0 Trichloro-s-triazine-trone	Pelleted/Tableted
	935-74	7.0 NaBr 89.0 Sodium dichloro-s-triazinetrione	Granular
	935-75	7.0 NaBr 92.0 Trichloro-s-triazine-trione	Pelleted/Tableted
	935-76	7.0 NaBr 92.0 Sodium dichoro-s-triazinetrione	Pelleted/Tableted
	935-78	9.2 NaBr 88.0 Trichloro-s-triazine-trione	Pelleted/Tableted
	5185-376	14.6 NaBr 81.6 Sodium dichloro-s triazinetrione	Granular

Table II lists 6 products containing sodium bromide or sodium chloride as an active ingredient, which were not considered to be similar for purposes of acute toxicity or the Agency lacked sufficient information for decision making and were not placed in any batch. Registrants of these products are responsible for meeting the acute toxicity data requirements for each product.

Table II.

EPA Registration Number	% Sodium Bromide (NaBr), and any other active ingredient	Formulation
1706-168	42.8 NaBr	Ready-To-Use-Solution
5736-90	2.6 NaBr	Ready-To-Use-Solution
5736-94	1.7 NaBr	Ready-To-Use-Solution
62432-1	1.5 Sodium chloride 20.4 Potassium peroxymonosulfate	Soluble Concentrate
65501-1	20.0 Sodium chloride	Impregnated Material
7616-65	3.8 NaBr	Ready-To-Use-Solution

Attachment 5. EPA Acceptance Criteria

SUBDIVISION D

Guideline	Study Title
Series 61	Product Identity and Composition
Series 62	Analysis and Certification of Product Ingredients
Series 63	Physical and Chemical Characteristics

61 Product Identity and Composition

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Name of technical material tested (include product name and trade name, if appropriate).

2.____ Name, nominal concentration, and certified limits (upper and lower) for each active ingredient and each intentionally-added inert ingredient.

3.____ Name and upper certified limit for each impurity or each group of impurities present at $\geq$ 0.1% by weight and for certain toxicologically significant impurities (e.g., dioxins, nitrosamines) present at <0.1%.

4.____ Purpose of each active ingredient and each intentionally-added inert.

5.____ Chemical name from Chemical Abstracts index of Nomenclature and Chemical Abstracts Service (CAS) Registry Number for each active ingredient and, if available, for each intentionally-added inert.

6.____ Molecular, structural, and empirical formulas, molecular weight or weight range, and any company assigned experimental or internal code numbers for each active ingredient.

7.____ Description of each beginning material in the manufacturing process.

____ EPA Registration Number if registered; for other beginning materials, the following:

____ Name and address of manufacturer or supplier.
____ Brand name, trade name or commercial designation.
____ Technical specifications or data sheets by which manufacturer or supplier describes composition, properties or toxicity.

8.____ Description of manufacturing process.

____ Statement of whether batch or continuous process.
____ Relative amounts of beginning materials and order in which they are added.
____ Description of equipment.
____ Description of physical conditions (temperature, pressure, humidity) controlled in each step and the parameters that are maintained.
____ Statement of whether process involves intended chemical reactions.
____ Flow chart with chemical equations for each intended chemical reaction.
____ Duration of each step of process.
____ Description of purification procedures.
____ Description of measures taken to assure quality of final product.

9.____ Discussion of formation of impurities based on established chemical theory addressing (1) each impurity which may be present at $\geq$ 0.1% or was found at $\geq$ 0.1% by product analyses and (2) certain toxicologically significant impurities (see #3).

62 Analysis and Certification of Product Ingredients

ACCEPTANCE CRITERIA

The following criteria apply to the technical grade of the active ingredient being reregistered. Use a table to present the information in items 6, 7, and 8.

Does your study meet the following acceptance criteria?

1.____ Five or more representative samples (batches in case of batch process) analyzed for each active ingredient and all impurities present at $\geq$ 0.1%.
2.____ Degree of accountability or closure $\geq$ ca 98%.
3.____ Analyses conducted for certain trace toxic impurities at lower than 0.1% (examples, nitrosamines in the case of products containing dinitroanilines or containing secondary or tertiary amines/alkanolamines plus nitrites; polyhalogenated dibenzodioxins and dibenzofurans). [Note that in the case of nitrosamines both fresh and stored samples must be analyzed.].
4.____ Complete and detailed description of each step in analytical method used to analyze above samples.
5.____ Statement of precision and accuracy of analytical method used to analyze above samples.
6.____ Identities and quantities (including mean and standard deviation) provided for each analyzed ingredient.
7.____ Upper and lower certified limits proposed for each active ingredient and intentionally added inert along with explanation of how the limits were determined.
8.____ Upper certified limit proposed for each impurity present at $\geq$ 0.1% and for certain toxicologically significant impurities at <0.1% along with explanation of how limit determined.
9.____ Analytical methods to verify certified limits of each active ingredient and impurities (latter not required if exempt from requirement of tolerance or if generally recognized as safe by FDA) are fully described.
10.____ Analytical methods (as discussed in #9) to verify certified limits validated as to their precision and accuracy.

63 Physical and Chemical Characteristics

ACCEPTANCE CRITERIA

The following criteria apply to the technical grade of the active ingredient being reregistered.

Does your study meet the following acceptance criteria?

63-2 Color

____ Verbal description of coloration (or lack of it)
____ Any intentional coloration also reported in terms of Munsell color system

63-3 Physical State

____ Verbal description of physical state provided using terms such as "solid, granular, volatile liquid"
____ Based on visual inspection at about 20-25° C

63-4 Odor

____ Verbal description of odor (or lack of it) using terms such as "garlic-like, characteristic of aromatic compounds"
____ Observed at room temperature

63-5 Melting Point

____ Reported in °C
____ Any observed decomposition reported

63-6 Boiling Point

____ Reported in °C
____ Pressure under which B.P. measured reported
____ Any observed decomposition reported

63-7 Density, Bulk Density, Specific Gravity

____ Measured at about 20-25° C
____ Density of technical grade active ingredient reported in g/ml <u>or</u> the specific gravity of liquids reported with reference to water at 20° C. [Note: <u>Bulk</u> density of registered products may be reported in lbs/ft^3 or lbs/gallon.]

63-8 Solubility

____ Determined in distilled water and representative polar and non-polar solvents, including those used in formulations and analytical methods for the pesticide
____ Measured at about 20-25° C
____ Reported in g/100 ml (other units like ppm acceptable if sparingly soluble)

63-9 Vapor Pressure

____ Measured at 25° C (or calculated by extrapolation from measurements made at higher temperature if pressure too low to measure at 25° C)
____ Experimental procedure described
____ Reported in mm Hg (torr) or other conventional units

63-10 Dissociation Constant

____ Experimental method described
____ Temperature of measurement specified (preferably about 20-25°C)

63-11 Octanol/water Partition Coefficient

____ Measured at about 20-25° C
____ Experimentally determined and description of procedure provided (preferred method-45 Fed. Register 77350)
____ Data supporting reported value provided

63-12 pH

____ Measured at about 20-25° C
____ Measured following dilution or dispersion in distilled water

63-13 Stability

____ Sensitivity to metal ions and metal determined
____ Stability at normal and elevated temperatures
____ Sensitivity to sunlight determined

SUBDIVISION F

Guideline	Study Title
81-1	Acute Oral Toxicity in the Rat
81-2	Acute Dermal Toxicity in the Rat, Rabbit or Guinea Pig
81-3	Acute Inhalation Toxicity in the Rat
81-4	Primary Eye Irritation in the Rabbit
81-5	Primary Dermal Irritation Study
81-6	Dermal Sensitization in the Guinea Pig

81-1 Acute Oral Toxicity in the Rat

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Identify material tested (technical, end-use product, etc).
2.____ At least 5 young adult rats/sex/group.
3.____ Dosing, single oral may be administered over 24 hrs.
4.*___ Vehicle control if other than water.
5.____ Doses tested, sufficient to determine a toxicity category or a limit dose (5000 mg/kg).
6.____ Individual observations at least once a day.
7.____ Observation period to last at least 14 days, or until all test animals appear normal whichever is longer.
8.____ Individual daily observations.
9.____ Individual body weights.
10.____ Gross necropsy on all animals.

Criteria marked with an * are supplemental and may not be required for every study.

81-2 Acute Dermal toxicity in the Rat, Rabbit or Guinea Pig

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1._____ Identify material tested (technical, end-use product, etc).
2._____ At least 5 animals/sex/group.
3.*_____ Rats 200-300 gm, rabbits 2.0-3.0 kg or guinea pigs 350-450 gm.
4._____ Dosing, single dermal.
5._____ Dosing duration at least 24 hours.
6.*_____ Vehicle control, only if toxicity of vehicle is unknown.
7._____ Doses tested, sufficient to determine a toxicity category or a limit dose (2000 mg/kg).
8._____ Application site clipped or shaved at least 24 hours before dosing.
9._____ Application site at least 10% of body surface area.
10._____ Application site covered with a porous nonirritating cover to retain test material and to prevent ingestion.
11._____ Individual observations at least once a day.
12._____ Observation period to last at least 14 days.
13._____ Individual body weights.
14._____ Gross necropsy on all animals.

Criteria marked with an * are supplemental and may not be required for every study.

81-3 Acute Inhalation Toxicity in the Rat

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Identify material tested (technical, end-use product, etc).
2.____ Product is a gas, a solid which may produce a significant vapor hazard based on toxicity and expected use or contains particles of inhalable size for man (aerodynamic diameter 15 μm or less).
3.____ At least 5 young adult rats/sex/group.
4.____ Dosing, at least 4 hours by inhalation.
5.____ Chamber air flow dynamic, at least 10 air changes/hour, at least 19% oxygen content.
6.____ Chamber temperature, 22° C ($\pm$2°), relative humidity 40-60%.
7.____ Monitor rate of air flow.
8.____ Monitor actual concentrations of test material in breathing zone.
9.____ Monitor aerodynamic particle size for aerosols.
10.____ Doses tested, sufficient to determine a toxicity category or a limit dose (5 mg/L actual concentration of respirable substance).
11.____ Individual observations at least once a day.
12.____ Observation period to last at least 14 days.
13.____ Individual body weights.
14.____ Gross necropsy on all animals.

81-4 Primary Eye Irritation in the Rabbit

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Identify material tested (technical, end-use product, etc).
2.____ Study not required if material is corrosive, causes severe dermal irritation or has a pH of ≤ 2 or ≥ 11.5.
3.____ 6 adult rabbits.
4.____ Dosing, instillation into the conjunctival sac of one eye per animal.
5.____ Dose, 0.1 ml if a liquid; 0.1 ml or not more than 100 mg if a solid, paste or particulate substance.
6.____ Solid or granular test material ground to a fine dust.
7.____ Eyes not washed for at least 24 hours.
8.____ Eyes examined and graded for irritation before dosing and at 1, 24, 48 and 72 hr, then daily until eyes are normal or 21 days (whichever is shorter).
9.*___ Individual daily observations.

Criteria marked with an * are supplemental and may not be required for every study.

81-5 Primary Dermal Irritation Study

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Identify material tested (technical, end-use product, etc).
2.____ Study not required if material is corrosive or has a pH of ≤ 2 or ≥ 11.5.
3.____ 6 adult animals.
4.____ Dosing, single dermal.
5.____ Dosing duration 4 hours.
6.____ Application site shaved or clipped at least 24 hours prior to dosing.
7.____ Application site approximately 6 cm^2.
8.____ Application site covered with a gauze patch held in place with nonirritating tape.
9.____ Material removed, washed with water, without trauma to application site.
10.___ Application site examined and graded for irritation at 1, 24, 48 and 72 hr, then daily until normal or 14 days (whichever is shorter).
11.*__ Individual daily observations.

Criteria marked with an * are supplemental and may not be required for every study.

81-6 Dermal Sensitization in the Guinea Pig

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.___ Identify material tested (technical, end-use product, etc).
2.___ Study not required if material is corrosive or has a pH of ≤ 2 or ≥ 11.5.
3.___ One of the following methods is utilized:
   _____ Freund's complete adjuvant test
   _____ Guinea pig maximization test
   _____ Split adjuvant technique
   _____ Buehler test
   _____ Open epicutaneous test
   _____ Mauer optimization test
   _____ Footpad technique in guinea pig.
4.___ Complete description of test.
5.*__ Reference for test.
6.___ Test followed essentially as described in reference document.
7.___ Positive control included (may provide historical data conducted within the last 6 months).

Criteria marked with an * are supplemental and may not be required for every study.

Attachment 6. List of All Registrants Sent This Data Call-In (insert) Notice

Attachment 7. Cost Share Data Compensation Form, and Confidential Statement of Formula Form

Confidential Business Information: Does Not Contain National Security Information (E.O. 12065)

Form Approved. OMB No. 2070-0060. Approval Expires 2/28/94

EPA

United States Environmental Protection Agency
Office of Pesticide Programs (TS-767)
Washington, DC 20460

Confidential Statement of Formula

A. ☐ Basic Formulation
☐ Alternate Formulation

B. Page of

See Instructions on Back

1. Name and Address of Applicant/Registrant *(Include ZIP Code)*

2. Name and Address of Producer *(Include ZIP Code)*

3. Product Name

4. Registration No./File Symbol

5. EPA Product Mgr/Team No.

6. Country Where Formulated

7. Pounds/Gal or Bulk Density

8. pH

9. Flash Point/Flame Extension

EPA USE ONLY	10. Components in Formulation *(List as actually introduced into the formulation. Give commonly accepted chemical name, trade name, and CAS number.)*	11. Supplier Name & Address	12. EPA Reg. No.	13. Each Component in Formulation a. Amount	b. % by Weight	14. Certified Limits % by Weight a. Upper Limit	b. Lower Limit	15. Purpose in Formulation

16. Typed Name of Approving Official

17. Total Weight 100%

18. Signature of Approving Official

19. Title

20. Phone No. *(Include Area Code)*

21. Date

EPA Form 8570-4 (Rev. 12-90) Previous editions are obsolete. If you can photocopy this, please submit an additional copy. White - EPA File Copy (original) Yellow - Applicant copy

Instructions for Completing the Confidential Statement of Formula

The Confidential Statement of Formula (CSF) Form 8570-4 must be used. Two legible, signed copies of the form are required. Following are basic instructions:

a. All the blocks on the form must be filled in and answered completely.

b. If any block is not applicable, mark it N/A.

c. The CSF must be signed, dated and the telephone number of the responsible party must be provided.

d. All applicable information which is on the product specific data submission must also be reported on the CSF.

e. All weights reported under item 7 must be in pounds per gallon for liquids and pounds per cubic feet for solids.

f. Flashpoint must be in degrees Fahrenheit and flame extension in inches.

g. For all active ingredients, the EPA Registration Numbers for the currently registered source products must be reported under column 12.

h. The Chemical Abstracts Service (CAS) Numbers for all actives and inerts and all common names for the trade names must be reported.

i. For the active ingredients, the percent purity of the source products must be reported under column 10 and must be exactly the same as on the source product's label.

j. All the weights in columns 13.a. and 13.b. must be in pounds, kilograms, or grams. In no case will volumes be accepted. Do not mix English and metric system units (i.e., pounds and kilograms).

k. All the items under column 13.b. must total 100 percent.

1. All items under columns 14.a. and 14.b. for the active ingredients must represent pure active form.

m. The upper and lower certified limits for ail active and inert ingredients must follow the 40 CFR 158.175 instructions. An explanation must be provided if the proposed limits are different than standard certified limits.

n. When new CSFs are submitted and approved, all previously submitted CSFs become obsolete for that specific formulation.

United States Environmental Protection Agency
Washington, DC 20460

CERTIFICATION OF OFFER TO COST SHARE IN THE DEVELOPMENT OF DATA

Form Approved
OMB No. 2070-0106
2070-0057
Approval Expires 3-31-96

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, DC 20460; and to the Office of Management and Budget, Paperwork Reduction Project (2070-0106), Washington, DC 20503.

Please fill in blanks below.

Company Name	Company Number
Product Name	EPA Reg. No.

I Certify that:

My company is willing to develop and submit the data required by EPA under the authority of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), if necessary. However, my company would prefer to enter into an agreement with one or more registrants to develop jointly or share in the cost of developing data.

My firm has offered in writing to enter into such an agreement. That offer was irrevocable and included an offer to be bound by arbitration decision under section 3(c)(2)(B)(iii) of FIFRA if final agreement on all terms could not be reached otherwise. This offer was made to the following firm(s) on the following date(s):

Name of Firm(s)	Date of Offer

Certification:

I certify that I am duly authorized to represent the company named above, and that the statements that I have made on this form and all attachments therein are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature of Company's Authorized Representative	Date
Name and Title (Please Type or Print)	

EPA Form 8570-32 (5/91) Replaces EPA Form 8580, which is obsolete

United States Environmental Protection Agency
Washington, DC 20460

CERTIFICATION WITH RESPECT TO DATA COMPENSATION REQUIREMENTS

Form Approved
OMB No. 2070-0107
2070-0057
Approval Expires 3-31-96

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, DC 20460; and to the Office of Management and Budget, Paperwork Reduction Project (2070-0106), Washington, DC 20503.

Please fill in blanks below.

Company Name	Company Number
Product Name	EPA Reg. No.

I Certify that:

1. For each study cited in support of registration or reregistration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) that is an exclusive use study, I am the original data submitter, or I have obtained the written permission of the original data submitter to cite that study.

2. That for each study cited in support of registration or reregistration under FIFRA that is NOT an exclusive use study, I am the original data submitter, or I have obtained the written permission of the original data submitter, or I have notified in writing the company(ies) that submitted data I have cited and have offered to: (a) Pay compensation for those data in accordance with sections 3(c)(1)(D) and 3(c)(2)(D) of FIFRA; and (b) Commence negotiation to determine which data are subject to the compensation requirement of FIFRA and the amount of compensation due, if any. The companies I have notified are: (check one)

   [ ] The companies who have submitted the studies listed on the back of this form or attached sheets, or indicated on the attached "Requirements Status and Registrants' Response Form."

3. That I have previously complied with section 3(c)(1)(D) of FIFRA for the studies I have cited in support of registration or reregistration under FIFRA.

Signature	Date
Name and Title (Please Type or Print)	

GENERAL OFFER TO PAY: I hereby offer and agree to pay compensation to other persons, with regard to the registration or reregistration of my products, to the extent required by FIFRA sections 3(c)(1)(D) and 3(c)(2)(D).

Signature	Date
Name and Title (Please Type or Print)	

EPA Form 8570-31 (4-90)