TABLE OF CONTENTS

Page No.

15. CONSUMER PRODUCTS

15.1. BACKGROUND

Consumer products may contain toxic or potentially toxic chemical constituents to which humans may be exposed as a result of their use. For example, methylene chloride and other solvents and carriers are common in consumer products and may have human health concerns. Potential pathways of exposure to consumer products or chemicals released from consumer products during use occur via ingestion, inhalation, and dermal contact. Exposure assessments that address consumer products involve characterization of these potential exposure pathways and calculating exposure or dose (based on exposure pathway) of chemical substances released during use of consumer products. In order to estimate specific-pathway exposure for consumer products or their components, the following information is needed: amount of product used; concentration of product in each type of activity; percent weight of chemical present in product; duration and frequency of use or activity; and for dermal exposure, the amount of solution on skin after exposure (Hakkinen et al., 1991; U.S. EPA, 1987).

This chapter presents information on the amount of product used, frequency of use, and duration of use for various consumer products typically found in consumer households. All tables that present information for these consumer products are located at the end of this chapter. U.S. EPA (1987) has complied a comprehensive list of consumer products found in typical American households. This list of consumer products is presented in Table 15-1. It should be noted that this chapter does not provide an exhaustive treatment of all consumer products, but rather provides some background and data that can be utilized in an exposure assessment. The studies presented in the following sections represent readily available surveys for which data were collected on the frequency and duration of use and amount of use of cleaning products, painting products, household solvent products, cosmetic and other personal care products, household equipment, pesticides, and tobacco. The studies have been classified as either key or relevant based on their applicability to exposure assessment needs.

The reader is also referred to a document developed by the U.S. EPA, Office of Toxic Substances:

- "Standard Scenarios for Estimating Exposure to Chemical Substances During Use of Consumer Products - Volumes I and II" (1986).

This document presents data and supporting information required to assess consumer exposure to constituents in household cleaners and components of adhesives. Information presented includes a description of standard scenarios selected to represent upper bound exposures for each product. Values are also presented for parameters that are needed to estimate exposure for defined exposure routes and pathways assumed for each scenario.

An additional reference is the Simmons Market Research Bureau (SMRB), "Simmons Study of Media and Markets." This document provides an example of marketing data that are available that may be useful in assessing exposure to selected products. The reports are published annually. Data are collected on the buying habits of the U.S. populations over the past 12 months. This information is collected for over 1,000 consumer products. Data are presented on frequency of use, total number of buyers in each use category, and selected demographics. The consumer product data are presented according to the "buyer" and not necessarily according to the "user" (actively exposed person). It may be necessary to adjust the data to reflect potential uses in a household. The reports are available for purchase from the Simmons Market Research Bureau, (212) 916-8970. Appendix Table 15A-1 presents a list of product categories for which information is available.

15.2. KEY CONSUMER PRODUCTS USE STUDIES

Westat (1987a) - Household Solvent Products: A National Usage Survey - Westat (1987a) conducted a nationwide survey to determine consumer exposure to common household products believed to contain methylene chloride or its substitutes (trichloroethane, trichloro-ethylene, carbon tetrachloride, perchloroethylene, and 1,1,1,2,2,2- trichlorotrifluoroethane). The survey method-ology was comprised of three phases. In the first phase, the sample population was generated by using a random digit dialing (RDD) procedure. Using this procedure, telephone numbers of households were randomly selected by utilizing an unbiased, equal probability of selection method, known as the "Waksberg Method" (Westat, 1987a). After the respondents in the selected households (18 years and older) agreed to participate in the survey, the second phase was initiated. It involved a mailout of questionnaires and product pictures to each respondent. In the third phase, a telephone follow-up call was made to those respondents who did not respond to the mailed questionnaire within a 4-week period. The same questionnaire was administered over the telephone to participants who did not respond to

the mailed questionnaire. Of the 6,700 individuals contacted for the survey, 4,920 individuals either responded to the mailed questionnaire or to a telephone interview (a response rate of 73 percent). Survey questions included how often the products were used in the last 12 months; when they were last used; how much time was spent using a product (per occasion or year), and the time the respondent remained in the room after use; how much of a product was used per occasion or year; and what protective measures were used (Westat, 1987a).

Thirty-two categories of common household products were included in the survey and are presented in Table 15-2. Tables 15-2, 15-3, 15-4, and 15-5 provide means, medians, and percentile rankings for the following variables: frequency of use, exposure time, amount of use, and time exposed after use.

An advantage of this study is that the random digit dialing procedure (Waksberg Method) used in identifying participants for this survey enabled a diverse selection of a representative, unbiased, sample of the U.S. population (Westat 1987a). Also, empirical data generated from this study will provide more accurate calculations of human exposure to consumer household products than estimates previously used. However, a limitation associated with this study is that the data generated were based on recall behavior. Another limitation is that extrapolation of these data to long-term use patterns may be difficult.

CPSC (1992) - Methylene Chloride Consumer Use Study Survey Findings - As part of a plan to assess the effectiveness of labeling of consumer products containing methylene chloride, CPSC conducted a telephone survey of nearly five thousand households (CPSC, 1992). The survey was conducted in April and May of 1991. Three classes of products were of concern: paint strippers, non-automotive spray paint, and adhesive removers. The survey paralleled a 1986 consumer use survey sponsored jointly by CPSC and the U.S. EPA. Results of the survey were the following (CPSC, 1992):

- Compared to the 1986 findings, a significantly smaller proportion of current survey respondents used a paint stripper, spray paint, or adhesive remover.

- The proportion of the population who used the three products recently (within the past year) decreased substantially.

- Those who used the products reported a significantly longer time since their last use.

- For all three products, the reported amount used per year was significantly higher in the current survey.

The survey was conducted to estimate the percent of the U.S. adult population using paint remover, adhesive remover, and non-automotive spray paint. In addition, an estimate of the population using these products containing methylene chloride was determined. A survey questionnaire was developed to collect product usage data and demographic data. The survey sample was generated using a RDD technique.

A total of 4,997 product screener interviews were conducted for the product interview sections; the number of respondents were: 381 for paint strippers, 58 for adhesive removers, and 791 for non-automotive spray paint. Survey responses were weighted to allow estimation at the level of the total U.S. population (CPSC, 1992). A follow-up mail survey was also conducted using a short questionnaire. Respondents who had used the product in the past year or had purchased the product in the past 2 years and still had the container were asked to respond to the questionnaire (CPSC, 1992). Of the mail questionnaires (527) sent out, 259 were returned. The questionnaire responses included 67 on paint strippers, 6 on adhesive removers, and 186 on non-automotive spray paint. Results of the survey are presented in Tables 15-6 through 15-11 (N's are unweighted). Data are presented for recent users. Recent users were defined as persons who have used the product within the last year of the survey or who have purchased the product in the past 2 years.

An advantage of this survey is that the survey population was large and the survey responses were weighted to represent the U.S. population. In addition, the survey was designed to collect data for frequency of product use and amount of product used by gender. A limitation of the survey is that the data were generated based on recall behavior. Extrapolation of these data to accurately reflect long-term use patterns may be difficult.

Westat (1987b) - National Usage Survey of Household Cleaning Products - Westat (1987b) collected usage data from a nationwide survey to assess the magnitude of exposure of consumers to various products used when performing certain household cleaning tasks. The survey was conducted between the middle of November, 1985 to the middle of January, 1986. Telephone interviews were conducted with 193 households. According to Westat (1987b), the resulting response rate for this survey was 78 percent. The

Waksberg method discussed previously in the Westat (1987a) study was also used in randomly selecting telephone numbers employed in the Westat (1987b) survey. The survey was designed to obtain information on cleaning activities performed in the interior of the home during the previous year. The person who did the majority of the cleaning in the kitchen and bathroom areas of each household was interviewed. Of those respondents, the primary cleaner was female in 160 households (83 percent) and male in 30 households (16 percent); the sex of the respondents in three remaining households was not ascertained (Westat, 1987b). Data obtained from the survey included the frequency of performing 14 different cleaning tasks; the amount of time (duration) spent at each task; the cleaning product most frequently used; the type of product (liquid, powder, aerosol or spray pump) used; and the protective measures taken during cleaning such as wearing rubber gloves or having a window open or an exhaust fan on (Westat, 1987b).

The survey data are presented in Tables 15-12 through 15-16. Table 15-12 presents the mean and median total exposure time of use for each cleaning task and the product type preferred for each task. The percentile rankings for the total time exposed to the products used for 14 cleaning tasks are presented in Table 15-13. The mean and percentile rankings of the frequency in performing each task are presented in Table 15-14. Table 15-15 shows the mean and percentile rankings for exposure time per event of performing household tasks. The mean and percentile rankings for total number of hours spent per year using the top 10 product groups are presented in Table 15-16.

Westat (1987b) randomly selected a subset of 30 respondents from the original survey and reinterviewed them during the first two weeks of March, 1986 as a reliability check on the recall data obtained from the original phone survey. Frequency and duration data for 3 of the original 14 cleaning tasks were obtained from the reinterviews. In a second effort to validate the phone survey, 50 respondents of the original phone survey participated in a four-week diary study (between February and March, 1986) of 8 of the 14 cleaning tasks originally studied. The diary approach assessed the validity of using a one-time telephone survey to determine usual cleaning behavior (Westat, 1987b). The data (i.e., frequency and duration) obtained from the reinterviews and the diary approach were lower than the data from the original telephone survey. The data from the reinterviews and the diary approach were more consistent with each other. Westat (1987b) attributed the significant differences in the data obtained from these surveys to seasonal changes rather than methodological problems.

A limitation of this survey is evident from the reliability and validity check of the data conducted by Westat (1987b). The data obtained from the telephone survey may reflect heavier seasonal cleaning because the survey was conducted during the holidays (November through January). Therefore, usage data obtained in this study may be biased and may represent upper bound estimates. Another limitation of this study is the small size of the sample population. An advantage of this survey is that the RDD procedure (Waksberg Method) used provides unbiased results of sample selection and reduces the number of unproductive calls. Another advantage of this study is that it provides empirical data on frequency and duration of consumer use, thereby eliminating best judgment or guesswork.

Westat (1987c) - National Household Survey of Interior Painters - Westat (1987c) conducted a study between November, 1985 and January, 1986 to obtain usage information to estimate the magnitude of exposure of consumers to different types of painting and painting related products used while painting the interior of the home. Seven-hundred and seventy-seven households were sampled to determine whether any household member had painted the interior of the home during the last 12 months prior to the survey date. Of the sampled households, 208 households (27 percent) had a household member who had painted during the last 12 months. Based on the households with primary painters, the response rate was 90 percent (Westat, 1987c). The person in each household who did most of the interior painting during the last 12 months was interviewed over the telephone. The RDD procedure (Waksberg Method) previously described in Westat (1987a) was used to generate sample blocks of telephone numbers in this survey. Questions were asked on frequency and time spent for interior painting activities; the amount of paint used; and protective measures used (i.e., wearing gloves, hats, and masks or keeping a window open) (Westat, 1987c). Fifty-three percent of the primary painters in the households interviewed were male, 46 percent were female, and the sex of the remaining 1 percent was not ascertained. Three types of painting products were used in this study; latex paint, oil-based paint, and wood stains and varnishes. Of the respondents, 94.7 percent used latex paint, 16.8 percent used oil-based paint, and 20.2 percent used wood stains and varnishes.

Data generated from this survey are summarized in Tables 15-17, 15-18, and 15-19. Table 15-17 presents the mean, standard duration, and percentile rankings for the

total exposure time for painting activity by paint type. Table 15-18 presents the mean and standard exposure time for the painting activity per occasion for each paint type. A "painting occasion" is defined as a time period from start to cleanup (Westat 1987c). Table 15-18 also presents the frequency and percentile rankings of painting occasions per year. Table 15-19 presents the total amount of paint used by interior painters.

In addition, 30 respondents from the original survey were reinterviewed in April 1986, as a reliability check on the recall data obtained from the original painting survey. There were no significant differences between the data obtained from the reinterviews and the original painting survey (Westat, 1987c).

An advantage of this survey, based on the reliability check conducted by Westat (1987c), is the stability in the painting data obtained. Another advantage of this survey is that the response rate was high (90 percent), therefore, minimizing non-response bias. Also, the Waksberg Method employed provides an unbiased equal probability method of RDD. A limitation of the survey is the data are based on 12-month recall and may not accurately reflect long-term use patterns.

Tsang and Klepeis (1996) - National Human Activity Pattern Survey (NHAPS) - The U.S. EPA collected information for the general population on the duration and frequency of selected activities and the time spent in selected microenvironments via 24-hour diaries. Over 9000 individuals from 48 contiguous states participated in NHAPS. The survey was conducted between October 1992 and September 1994. Individuals were interviewed to categorize their 24-hour routines (diaries) and/or answer follow-up exposure questions that were related to exposure events. Data were collected based on selected socioeconomic (gender, age, race, education, etc.) and geographic (census region, state, etc.) factors and time/season (day of week, month) (Tsang and Klepeis, 1996).

Data were collected for a maximum of 82 possible microenvironments and 91 different activities (Tsang and Klepeis, 1996). Respondents were also asked exposure-related follow up questions, mostly on air and water exposure pathways, on specific pollutant sources (paint, glue, etc.), or prolonged background activities (tobacco smoke, gas heaters, etc.) (Tsang and Klepeis, 1996).

As part of the survey, data were also collected on duration and frequency of use of selected consumer products. These data are presented in Tables 15-20 through 15-41. Distribution data are presented for selected percentiles (where possible). Other data are presented in ranges of time spent in an activity (e.g., working with or near a product being used) or ranges for the number of times an activity involving a consumer product was performed. Tables 15-20 through 15-41 provide duration and/or frequency data for the following categories: selected cosmetics and personal care items; household cleaners and other household products; household equipment; pesticides; and tobacco products.

The advantages of NHAPS is that the data were collected for a large number of individuals and are representative of the U.S. general population. In addition, frequency distributions of time spent and frequency of occurrence data for activities and locations are provided, when possible. Also, data on 9,386 different respondents are grouped by various socioeconomic, geographic, time/seasonal factors.

15.3. RELEVANT CONSUMER PRODUCTS USE STUDY

CRFA (1983) - Cosmetic, Toiletry, and Fragrance Association, Inc. - Summary of Results of Surveys of the Amount and Frequency of Use of Cosmetic Products by Women - The Cosmetic, Toiletry, and Fragrance Association Inc. (CTFA, 1983), a major manufacturer and a market research bureau, conducted surveys to obtain information on frequency of use of various cosmetic products. Three surveys were conducted to collect data on the frequency of use of various cosmetic products and selected baby products. In the first of these three surveys CTFA (1983) conducted a one-week prospective survey of 47 female employees and relatives of employees between the ages of 13 and 61 years. In the second survey, a cosmetic manufacturer conducted a retrospective survey of 1,129 of its customers. The third survey was conducted by a market research bureau which sampled 19,035 female consumers nationwide over a 9-1/2 month period. Of the 19,035 females interviewed, responses from only 9,684 females were tabulated (CFTA, 1983). The third survey was designed to reflect the sociodemographic (i.e., age, income, etc) characteristics of the entire U.S. population. The respondents in all three surveys were asked to record the number of times they used the various products in a given time period, i.e., a week, a day, a month, or a year (CTFA, 1983).

To obtain the average frequency of use for each cosmetic product, responses were averaged for each product in each survey. Thus, the averages were calculated by adding the reported number of uses per given time period for each product, dividing by the total number of respondents in the survey, and then dividing

again by the number of days in the given time period (CFTA, 1983). The average frequency of use of cosmetic products was determined for both "users" and "non-users." The frequency of use of baby products was determined among "users" only. The upper 90th percentile frequency of use values were determined by eliminating the top ten percent most extreme frequencies of use. Therefore, the highest remaining frequency of use was recorded as the upper 90th percentile value (CFTA, 1983). Table 15-42 presents the amount of product used per application (grams) and the average and 90th percentile frequency of use per day for baby products and various cosmetic products for all the surveys.

An advantage of the frequency data obtained from the third survey (market research bureau) is that the sample population was more likely to be representative of the U.S. population. Another advantage of the third dataset is that the survey was conducted over a longer period of time when compared with the other two frequency datasets. Also, the study provided empirical data which will be useful in generating more accurate estimates of consumer exposure to cosmetic products. In contrast to the large market research bureau survey, the CTFA employee survey is very small and both that survey and the cosmetic company survey are likely to be biased toward high end users. Therefore, data from these two surveys should be used with caution.

15.4. RECOMMENDATIONS

Due to the large range and variation among consumer products and their exposure pathways, it is not feasible to specify recommended exposure values as has been done in other chapters of this handbook. The user is referred to the contents and references in the chapter to derive appropriate exposure factors. Table 15-43 summarizes the key and relevant studies in this chapter. In order to estimate consumer exposure to household products, several types of information are needed for the exposure equation. The information needed includes frequency and duration of use, amount of product used, percent weight of the chemical of concern found in the product, and for dermal exposure, the amount of the solution on the skin after exposure. The studies of Westat (1987a, b, and c), (CPSC, 1992), and Tsang and Klepeis (1996) provide information on amount, duration, and frequency of use of household products. The frequency and duration of use and amount of product used for some household and other consumer products can be obtained from Tables 15-2 through 15-42. Exposure to chemicals present in common household products can be estimated by utilizing data presented in these tables and the appropriate exposure equation. It should be noted that if these data are used to model indoor air concentrations, the values for time of use, time exposed after use, and frequency in the indoor air, should be the same values used in the dose equation for frequency and contact time for a given individual.

15.5. REFERENCES FOR CHAPTER 15

CPSC. (1992) Methylene chloride consumer products use survey findings. Prepared by ABT Associates for the U.S. Consumer Product Safety Commission, Bethesda, MD.

Cosmetic, Toiletry and Fragrance Association (CFTA). (1983). Summary of the results of surveys of the amount and frequency of use of cosmetic products by women. Prepared by Environ Corporation, Washington, DC for CFFA Inc., Washington, DC.

Hakkinen, P.J.; Kelling, C.K.; Callender, J.C. (1991) Exposure assessment of consumer products: Human body weights and total body surface areas to use; and sources of data for specific products. Veterinary and Human Toxicology 1(33):61-65.

Tsang, A.M.; Klepeis, N.E. (1996) Results tables from a detailed analysis of the National Human Activity Pattern Survey (NHAPS) response. Draft Report prepared for the U.S. Environmental Protection Agency by Lockheed Martin, Contract No. 68-W6-001, Delivery Order No. 13.

U.S. EPA. (1986) Standard scenarios for estimating exposure to chemical substances during use of consumer products. Prepared by Versar, Inc. For the Office of Toxic Substances, Contract No. 68-02-3968.

U.S. EPA. (1987) Methods for assessing exposure to chemical substances - Volume 7 - Methods for assessing consumer exposure to chemical substances. Washington, DC: Office of Toxic Substances. EPA Report No. 560/5-85-007.

Westat. (1987a) Household solvent products - a national usage survey. Under Subcontract to Battelle Columbus Div., Washington DC. Prepared for U.S. Environmental Protection Agency, Washington, DC. Available from NTIS, Springfield, VA. PB88-132881.

Westat. (1987b) National usage survey of household cleaning products. Prepared for U.S. Environmental Protection Agency, Office of Toxic Substances and Office of Pesticides and Toxic Substances, Washington, DC.

Westat. (1987c) National household survey of interior painters. Prepared for U.S. Environmental Protection Agency, Office of Toxic Substances and Office of Pesticides and Toxic Substances, Washington DC.

Table 15-1. Consumer Products Found in the Typical U.S. Household[a]

Consumer Product Category	Consumer Product
Cosmetics Hygiene Products	Adhesive bandages
	Bath additives (liquid)
	Bath additives (powder)
	Cologne/perfume/aftershave
	Contact lens solutions
	Deodorant/antiperspirant (aerosol)
	Deodorant/antiperspirant (wax and liquid)
	Depilatories
	Facial makeup
	Fingernail cosmetics
	Hair coloring/tinting products
	Hair conditioning products
	Hairsprays (aerosol)
	Lip products
	Mouthwash/breath freshener
	Sanitary napkins and pads
	Shampoo
	Shaving creams (aerosols)
	Skin creams (non-drug)
	Skin oils (non-drug)
	Soap (toilet bar)
	Sunscreen/suntan products
	Talc/body powder (non-drug)
	Toothpaste
	Waterless skin cleaners
Household Furnishings	Carpeting
	Draperies/curtains
	Rugs (area)
	Shower curtains
	Vinyl upholstery, furniture
Garment Conditioning Products	Anti-static spray (aerosol)
	Leather treatment (liquid and wax)
	Shoe polish
	Spray starch (aerosol)
	Suede cleaner/polish (liquid and aerosol)
	Textile water-proofing (aerosol)
Household Maintenance Products	Adhesive (general) (liquid)
	Bleach (household) (liquid)
	Bleach (see laundry)
	Candles
	Cat box litter
	Charcoal briquets
	Charcoal lighter fluid
	Drain cleaner (liquid and powder)
	Dishwasher detergent (powder)
	Dishwashing liquid
	Fabric dye (DIY)[b]
	Fabric rinse/softener (liquid)

Table 15-1. Consumer Products Found in the Typical U.S. Household[a] (continued)

Consumer Product Category	Consumer Product
Household Maintenance Products (continued)	Fabric rinse/softener (powder)
	Fertilizer (garden) (liquid)
	Fertilizer (garden) (powder)
	Fire extinguishers (aerosol)
	Floor polish/wax (liquid)
	Food packaging and packaged food
	Furniture polish (liquid)
	Furniture polish (aerosol)
	General cleaner/disinfectant (liquid)
	General cleaner (powder)
	General cleaner/disinfectant (aerosol and pump)
	General spot/stain remover (liquid)
	General spot/stain remover (aerosol and pump)
	Herbicide (garden-patio) (Liquid and aerosol)
	Insecticide (home and garden) (powder)
	Insecticide (home and garden) (aerosol and pump)
	Insect repellent (liquid and aerosol)
	Laundry detergent/bleach (liquid)
	Laundry detergent (powder)
	Laundry pre-wash/soak (powder)
	Laundry pre-wash/soak (liquid)
	Laundry pre-wash/soak (aerosol and pump)
	Lubricant oil (liquid)
	Lubricant (aerosol)
	Matches
	Metal polish
	Oven cleaner (aerosol)
	Pesticide (home) (solid)
	Pesticide (pet dip) (liquid)
	Pesticide (pet) (powder)
	Pesticide (pet) (aerosol)
	Pesticide (pet) (collar)
	Petroleum fuels (home((liquid and aerosol)
	Rug cleaner/shampoo (liquid and aerosol)
	Rug deodorizer/freshener (powder)
	Room deodorizer (solid)
	Room deodorizer (aerosol)
	Scouring pad
	Toilet bowl cleaner
	Toiler bowl deodorant (solid)
	Water-treating chemicals (swimming pools)
Home Building/Improvement Products (DIY)[b]	Adhesives, specialty (liquid)
	Ceiling tile
	Caulks/sealers/fillers
	Dry wall/wall board
	Flooring (vinyl)
	House Paint (interior) (liquid)
	House Paint and Stain (exterior) (liquid)
	Insulation (solid)
	Insulation (foam)

Table 15-1. Consumer Products Found in the Typical U.S. Household[a] (continued)

Consumer Product Category	Consumer Product
Home Building/Improvement Products (DIY)[b] (Continued)	Paint/varnish removers Paint thinner/brush cleaners Patching/ceiling plaster Roofing Refinishing products (polyurethane, varnishes, etc.) Spray paints (home) (aerosol) Wall paneling Wall paper Wall paper glue
Automobile-related Products	Antifreeze Car polish/wax Fuel/lubricant additives Gasoline/diesel fuel Interior upholstery/components, synthetic Motor oil Radiator flush/cleaner Automotive touch-up paint (aerosol) Windshield washer solvents
Personal Materials	Clothes/shoes Diapers/vinyl pants Jewelry Printed material (colorprint, newsprint, photographs) Sheets/towels Toys (intended to be placed in mouths)

[a] A subjective listing based on consumer use profiles.
[b] DIY = Do It Yourself.
Source: U.S. EPA, 1987.

Table 15-2. Frequency of Use For Household Solvent Products

Products	Mean	Std. dev.	Min.	Percentile Rankings for Frequency of Use/Year 1	5	10	25	50	75	90	95	99	Max.
Spray Shoe Polish	10.28	20.10	1.00	1.00	1.00	1.00	2.00	4.00	8.00	24.30	52.00	111.26	156.00
Water Repellents/Protectors	3.50	11.70	1.00	1.00	1.00	1.00	1.00	2.00	3.00	6.00	10.00	35.70	300.00
Spot Removers	15.59	43.34	1.00	1.00	1.00	1.00	2.00	3.00	10.00	40.00	52.00	300.00	365.00
Solvent-Type Cleaning Fluids or Degreasers	16.46	44.12	1.00	1.00	1.00	1.00	2.00	4.00	12.00	46.00	52.00	300.00	365.00
Wood Floor and Paneling Cleaners	8.48	20.89	1.00	1.00	1.00	1.00	NA	2.00	6.00	24.00	50.00	56.00	350.00
TypeWriter Correction Fluid	40.00	74.78	1.00	1.00	1.00	2.00	4.00	12.00	40.00	100.00	200.00	365.00	520.00
Adhesives	8.89	26.20	1.00	1.00	1.00	1.00	2.00	3.00	6.00	15.00	28.00	100.00	500.00
Adhesive Removers	4.22	12.30	1.00	1.00	1.00	1.00	1.00	1.00	3.00	6.00	16.80	100.00	100.00
Silicone Lubricants	10.32	25.44	1.00	1.00	1.00	1.00	2.00	3.00	10.00	20.00	46.35	150.00	300.00
Other Lubricants (excluding Automotive)	10.66	25.46	1.00	1.00	1.00	1.00	2.00	4.00	10.00	20.00	50.00	100.00	420.00
Specialized Electronic Cleaners (for TVs, Etc.)	13.41	38.16	1.00	1.00	1.00	1.00	2.00	3.00	10.00	24.00	52.00	224.50	400.00
Latex Paint	3.93	20.81	1.00	1.00	1.00	1.00	1.00	2.00	4.00	6.00	10.00	30.00	800.00
Oil Paint	5.66	23.10	1.00	1.00	1.00	1.00	1.00	1.00	3.00	6.00	12.00	139.20	300.00
Wood Stains, Varnishes, and Finishes	4.21	12.19	1.00	1.00	1.00	1.00	1.00	2.00	4.00	7.00	12.00	50.80	250.00
Paint Removers/Strippers	3.68	9.10	1.00	1.00	1.00	1.00	4.00	2.00	3.00	6.00	11.80	44.56	100.00
Paint Thinners	6.78	22.10	0.03	0.03	0.10	0.23	1.00	2.00	4.00	12.00	23.00	100.00	352.00
Aerosol Spray Paint	4.22	15.59	1.00	1.00	1.00	1.00	1.00	2.00	4.00	6.10	12.00	31.05	365.00
Primers and Special Primers	3.43	8.76	1.00	1.00	1.00	1.00	1.00	1.00	3.00	6.00	10.00	50.06	104.00
Aerosol Rust Removers	6.17	9.82	1.00	1.00	1.00	1.00	1.00	2.00	6.00	15.00	24.45	50.90	80.00
Outdoor Water Repellents (for Wood or Cement)	2.07	3.71	1.00	1.00	1.00	1.00	1.00	2.00	2.00	3.00	5.90	12.00	52.00
Glass Frostings, Window Tints, and Artificial Snow	2.78	21.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	27.20	365.00
Engine Degreasers	4.18	13.72	1.00	1.00	1.00	1.00	1.00	2.00	3.25	6.70	12.00	41.70	300.00
Carburetor Cleaners	3.77	7.10	1.00	1.00	1.00	1.00	1.00	2.00	3.00	6.00	12.00	47.28	100.00
Aerosol Spray Paints for Cars	4.50	9.71	1.00	1.00	1.00	1.00	1.00	2.00	4.00	10.00	15.00	60.00	100.00
Auto Spray Primers	6.42	33.89	1.00	1.00	1.00	1.00	1.00	2.00	3.75	10.00	15.00	139.00	500.00
Spray Lubricant for Cars	10.31	30.71	1.00	1.00	1.00	1.00	2.00	3.00	6.00	20.00	40.00	105.60	365.00
Transmission Cleaners	2.28	3.55	1.00	NA	1.00	1.00	1.00	1.00	2.00	3.00	9.00	NA	26.00
Battery Terminal Protectors	3.95	24.33	1.00	1.00	1.00	1.00	1.00	2.00	2.00	4.00	6.55	41.30	365.00
Brake Quieters Cleaners	3.00	6.06	1.00	NA	1.00	1.00	1.00	2.00	2.00	6.00	10.40	NA	52.00
Gasket Remover	2.50	4.39	1.00	NA	1.00	1.00	1.00	1.00	2.00	5.00	6.50	NA	30.00
Tire/Hubcap Cleaners	11.18	18.67	1.00	1.00	1.00	1.00	2.00	4.00	12.00	30.00	50.00	77.00	200.00
Ignition and Wire Dryers	3.01	5.71	1.00	1.00	1.00	1.00	1.00	2.00	3.00	5.00	9.70	44.52	60.00

NA = Not Available
Source: Westat, 1987a

Table 15-3. Exposure Time of Use For Household Solvent Products

Products	Mean (mins)	Std. dev.	Min.	Percentile Rankings for Duration of Use (mins) 1	5	10	25	50	75	90	95	99	Max.
Spray Shoe Polish	7.49	9.60	0.02	0.03	0.25	0.50	2.00	5.00	10.00	18.00	30.00	60.00	60.00
Water Repellents/Protectors	14.46	24.10	0.02	0.08	0.50	1.40	3.00	10.00	15.00	30.00	60.00	120.00	480.00
Spot Removers	10.68	22.36	0.02	0.03	0.08	0.25	2.00	5.00	10.00	30.00	30.00	120.00	360.00
Solvent-Type Cleaning Fluids or Degreasers	29.48	97.49	0.02	0.03	1.00	2.00	5.00	15.00	30.00	60.00	120.00	300.00	1800.00
Wood Floor and Paneling Cleaners	74.04	128.43	0.02	1.00	5.00	10.00	20.00	30.00	90.00	147.00	240.00	480.00	2700.00
TypeWriter Correction Fluid	7.62	29.66	0.02	0.02	0.03	0.03	0.17	1.00	2.00	10.00	32.00	120.00	480.00
Adhesives	15.58	81.80	0.02	0.03	0.08	0.33	1.00	4.25	10.00	30.00	60.00	180.00	2880.00
Adhesive Removers	121.20	171.63	0.03	0.03	1.45	3.00	15.00	60.00	120.00	246.00	480.00	960.00	960.00
Silicone Lubricants	10.42	29.47	0.02	0.03	0.08	0.17	0.50	2.00	10.00	20.00	45.00	180.00	360.00
Other Lubricants (excluding Automotive)	8.12	32.20	0.02	0.03	0.05	0.08	0.50	2.00	5.00	15.00	30.00	90.00	900.00
Specialized Electronic Cleaners (for TVs, Etc.)	9.47	45.35	0.02	0.03	0.08	0.17	0.50	2.00	5.00	20.00	30.00	93.60	900.00
Latex Paint	295.08	476.11	0.02	1.00	22.50	30.00	90.00	180.00	360.00	480.00	810.00	2880.00	5760.00
Oil Paint	194.12	345.68	0.02	0.51	15.00	30.00	60.00	12.00	240.00	480.00	579.00	1702.80	5760.00
Wood Stains, Varnishes, and Finishes	117.17	193.05	0.02	0.74	5.00	10.00	30.00	60.00	120.00	140.00	360.00	720.00	280.00
Paint Removers/Strippers	125.27	286.59	0.02	0.38	5.00	5.00	20.00	60.00	120.00	240.00	420.00	1200.00	4320.00
Paint Thinners	39.43	114.85	0.02	0.08	1.00	2.00	5.00	10.00	30.00	60.00	180.00	480.00	2400.00
Aerosol Spray Paint	39.54	87.79	0.02	0.17	2.00	5.00	10.00	20.00	45.00	60.00	120.00	300.00	1800.00
Primers and Special Primers	91.29	175.05	0.05	0.24	3.00	5.00	15.00	30.00	120.00	240.00	360.00	981.60	1920.00
Aerosol Rust Removers	18.57	48.54	0.02	0.05	0.17	0.25	2.00	5.00	20.00	60.00	60.00	130.20	720.00
Outdoor Water Repellents	104.94	115.36	0.02	0.05	5.00	15.00	30.00	60.00	120.00	240.00	300.00	480.00	960.00
(for Wood or Cement)	29.45	48.16	0.03	0.14	2.00	3.00	5.00	15.00	30.00	60.00	96.00	268.80	360.00
Glass Frostings, Window Tints, and Artificial Snow	29.29	48.14	0.02	0.95	2.00	5.00	10.00	15.00	30.00	60.00	120.00	180.00	900.00
Engine Degreasers, Carburetor Cleaners	13.57	23.00	0.02	0.08	0.33	1.00	3.00	7.00	15.00	30.00	45.00	120.00	300.00
Aerosol Spray Paints for Cars	42.77	71.39	0.03	0.19	1.00	3.00	10.00	20.00	60.00	120.00	145.00	360.00	900.00
Auto Spray Primers	51.45	86.11	0.05	0.22	2.00	5.00	10.00	27.50	60.00	120.00	180.00	529.20	600.00
Spray Lubricant for Cars	9.90	35.62	0.02	0.03	0.08	0.17	1.00	5.00	10.00	15.00	30.00	120.00	720.00
Transmission Cleaners	27.90	61.44	0.17	NA	0.35	1.80	5.00	15.00	30.00	60.00	60.00	NA	450.00
Battery Terminal Protectors	9.61	18.15	0.03	0.04	0.08	0.23	1.00	5.00	10.00	20.00	30.00	120.00	180.00
Brake Quieters/Cleaners	23.38	36.32	0.07	NA	0.50	1.00	5.00	15.00	30.00	49.50	120.00	NA	240.00
Gasket Remover	23.57	27.18	0.33	NA	0.50	2.00	6.25	15.00	30.00	60.00	60.00	NA	180.00
Tire/Hubcap Cleaners	22.66	23.94	0.08	0.71	3.00	5.00	10.00	15.00	30.00	60.00	60.00	120.00	240.00
Ignition and Wire Dryers	7.24	8.48	0.02	0.02	0.08	0.47	1.50	5.00	10.00	15.00	25.50	48.60	60.00

NA = Not Available
Source: Westat, 1987a

Table 15-4. Amount of Products Used For Household Solvent Products

Products	Mean (ounces/yr)	Std. dev	Min.	Percentile Rankings for Amount of Products Used (ounces/yr) 1	5	10	25	50	75	90	95	99	Max.
Spray Shoe Polish	9.90	17.90	0.04	0.20	0.63	1.00	2.00	4.50	10.00	24.00	36.00	99.36	180.00
Water Repellents/Protectors	11.38	22.00	0.04	0.47	0.98	1.43	2.75	6.00	12.00	24.00	33.00	121.84	450.00
Spot Removers	26.32	90.10	0.01	0.24	0.60	1.00	2.00	5.50	16.00	48.00	119.20	384.00	1600.00
Solvent-Type Cleaning Fluids or Degreasers	58.30	226.97	0.04	0.50	2.00	3.00	6.50	16.00	32.00	96.00	192.00	845.00	5120.00
Wood Floor and Paneling Cleaners	28.41	57.23	0.03	0.80	2.45	3.50	7.00	14.00	30.00	64.00	96.00	204.40	1144.00
TypeWriter Correction Fluid	4.14	13.72	0.01	0.02	0.06	0.12	0.30	0.94	2.40	8.00	18.00	67.44	181.80
Adhesives	7.49	55.90	0.01	0.02	0.05	0.12	0.35	1.00	3.00	8.00	20.00	128.00	1280.00
Adhesive Removers	34.46	96.60	0.25	0.29	1.22	2.80	6.00	10.88	32.00	64.00	138.70	665.60	1024.00
Silicone Lubricants	12.50	27.85	0.02	0.20	0.69	1.00	2.25	4.50	12.00	24.00	41.20	192.00	312.00
Other Lubricants (excluding Automotive)	9.93	44.18	0.01	0.18	0.30	0.52	1.00	2.25	8.00	18.00	32.00	128.00	1280.00
Specialized Electronic Cleaners (for TVs, Etc.)	9.48	55.26	0.01	0.05	0.13	0.25	0.52	2.00	6.00	12.65	24.00	109.84	1024.00
Latex Paint	371.27	543.86	0.03	4.00	12.92	32.00	64.00	256.00	384.00	857.60	1280.00	2560.00	6400.00
Oil Paint	168.92	367.82	0.02	0.33	4.00	8.00	25.20	64.00	148.48	384.00	640.00	1532.16	5120.00
Wood Stains, Varnishes, and Finishes	65.06	174.01	0.12	1.09	4.00	4.00	8.00	16.00	64.00	128.00	256.00	768.00	3840.00
Paint Removers/Strippers	63.73	144.33	0.64	1.50	4.00	8.00	16.00	32.00	64.00	128.00	256.00	512.00	2560.00
Paint Thinners	69.45	190.55	0.03	0.45	3.10	4.00	8.00	20.48	64.00	128.00	256.00	640.00	3200.00
Aerosol Spray Paint	30.75	52.84	0.02	0.75	2.01	3.25	7.00	13.00	32.00	65.00	104.00	240.00	1053.00
Primers and Special Primers	68.39	171.21	0.01	0.09	1.30	3.23	8.00	16.00	60.00	128.00	256.00	867.75	1920.00
Aerosol Rust Removers	18.21	81.37	0.09	0.25	1.00	1.43	2.75	8.00	13.00	32.00	42.60	199.80	1280.00
Outdoor Water Repellents (for Wood or Cement)	148.71	280.65	0.01	0.37	3.63	8.00	16.00	64.00	128.00	448.00	640.00	979.20	3200.00
Glass Frostings, Window Tints, and Artificial Snow	13.82	14.91	1.00	1.40	2.38	3.25	6.00	12.00	14.00	28.00	33.00	98.40	120.00
Engine Degreasers	46.95	135.17	0.04	1.56	4.00	6.00	12.00	16.00	36.00	80.00	160.00	480.00	2560.00
Carburetor Cleaners	22.00	50.60	0.10	0.50	1.50	3.00	5.22	12.00	16.00	39.00	75.00	212.00	672.00
Aerosol Spray Paints for Cars	44.95	89.78	0.04	0.14	1.50	3.00	6.12	16.00	48.00	100.80	156.00	557.76	900.00
Auto Spray Primers	70.37	274.56	0.12	0.77	3.00	4.00	9.00	16.00	48.00	128.00	222.00	1167.36	3840.00
Spray Lubricant for Cars	18.63	54.74	0.08	0.40	0.96	1.00	2.75	6.00	15.50	36.00	64.00	240.00	864.00
Transmission Cleaners	35.71	62.93	2.00	NA	3.75	4.00	8.00	15.00	32.00	77.00	140.00	NA	360.00
Battery Terminal Protectors	16.49	87.84	0.12	0.13	0.58	1.00	2.00	4.00	8.00	15.00	24.60	627.00	1050.00
Brake Quieters/Cleaners	11.72	13.25	0.50	NA	1.00	2.00	3.02	8.00	14.25	32.00	38.60	NA	78.00
Gasket Remover	13.25	22.35	0.50	NA	1.00	1.00	3.75	7.75	16.00	24.00	58.40	NA	160.00
Tire/Hubcap Cleaners	31.58	80.39	0.12	0.50	1.82	3.00	6.00	12.00	28.00	64.00	96.00	443.52	960.00
Ignition and Wire Dryers	9.02	14.59	0.13	0.32	1.09	1.50	3.00	6.00	10.75	16.00	20.55	113.04	120.00

NA = Not Available
Source: Westat, 1987a

Table 15-5. Time Exposed After Duration of Use For Household Solvent Products

Products	Mean (mins)	Std. dev.	Min.	1	5	10	25	50	75	90	95	99	Max.
			Percentile Rankings for Time Exposed After Duration of Use (mins)										
Spray Shoe Polish	31.40	80.50	0.00	0.00	0.00	0.00	0.00	5.00	20.00	120.00	120.00	480.00	720.00
Water Repellents/Protectors	37.95	111.40	0.00	0.00	0.00	0.00	0.00	3.00	20.00	120.00	240.00	480.00	1800.00
Spot Removers	43.65	106.97	0.00	0.00	0.00	0.00	1.00	5,.00	30.00	120.00	240.00	480.00	1440.00
Solvent-Type Cleaning Fluids or Degreasers	33.29	90.39	0.00	0.00	0.00	0.00	0.00	3.00	28.75	60.00	180.00	480.00	1440.00
Wood Floor and Paneling Cleaners	96.75	192.88	0.00	0.00	0.00	0.00	5.00	30.00	120.00	240.00	480.00	1062.00	1440.00
TypeWriter Correction Fluid	124.70	153.46	0.00	0.00	1.00	5.00	30.00	60.00	180.00	360.00	480.00	600.00	1800.00
Adhesives	68.88	163.72	0.00	0.00	0.00	0.00	1.00	10.00	60.00	180.00	360.00	720.00	2100.00
Adhesive Removers	94.12	157.69	0.00	0.00	0.00	0.00	1.75	20.00	120.00	360.00	480.00	720.00	720.00
Silicone Lubricants	30.77	107.39	0.00	0.00	0.00	0.00	0.00	0.00	10.00	60.00	180.00	480.00	1440.00
Other Lubricants (excluding Automotive)	47.45	127.11	0.00	0.00	0.00	0.00	0.00	2.00	30.00	120.00	240.00	485.40	1440.00
Specialized Electronic Cleaners (for TVs, Etc.)	117.24	154.38	0.00	0.00	0.00	1.00	10.00	60.00	180.00	300.00	480.00	720.00	1440.00
Latex Paint	91.38	254.61	0.00	0.00	0.00	0.00	0.00	5.00	60.00	240.00	480.00	1440.00	2880.00
Oil Paint	44.56	155.19	0.00	0.00	0.00	0.00	0.00	0.00	30.00	120.00	240.00	480.00	2880.00
Wood Stains, Varnishes, and Finishes	48.33	156.44	0.00	0.00	0.00	0.00	0.00	1.00	30.00	120.00	240.00	694.00	2880.00
Paint Removers/Strippers	31.38	103.07	0.00	0.00	0.00	0.00	0.00	0.00	20.00	60.00	180.00	541.20	1440.00
Paint Thinners	32.86	105.62	0.00	0.00	0.00	0.00	0.00	0.00	15.00	60.00	180.00	480.00	1440.00
Aerosol Spray Paint	12.70	62.80	0.00	0.00	0.00	0.00	0.00	0.00	1.00	30.00	60.00	260.50	1440.00
Primers and Special Primers	22.28	65.57	0.00	0.00	0.00	0.00	0.00	0.00	10.00	60.00	120.00	319.20	720.00
Aerosol Rust Removers	15.06	47.58	0.00	0.00	0.00	0.00	0.00	0.00	5.00	60.00	60.00	190.20	600.00
Outdoor Water Repellents (for Wood or Cement)	8.33	43.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	58.50	309.60	420.00
Glass Frostings, Window Tints, and Artificial Snow	137.87	243.21	0.00	0.00	0.00	0.00	3.00	60.00	180.00	360.00	480.00	1440.00	1800.00
Engine Degreasers	4.52	24.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.50	120.00	360.00
Carburetor Cleaners	7.51	68.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	30.00	120.60	1800.00
Aerosol Spray Paints for Cars	10.71	45.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.50	60.00	282.00	480.00
Auto Spray Primers	11.37	45.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	77.25	360.00	360.00
Spray Lubricant for Cars	4.54	30.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	15.00	70.20	420.00
Transmission Cleaners	5.29	29.50	0.00	NA	0.00	0.00	0.00	0.00	0.00	5.00	22.50	NA	240.00
Battery Terminal Protectors	3.25	17.27	0.00	NA	0.00	0.00	0.00	0.00	0.00	2.90	15.00	120.00	180.00
Brake Quieters/Cleaners	10.27	30.02	0.00	NA	0.00	0.00	0.00	0.00	0.00	30.00	120.00	NA	120.00
Gasket Remover	27.56	58.54	0.00	NA	0.00	0.00	0.00	0.00	12.50	120.00	180.00	NA	240.00
Tire/Hubcap Cleaners	1.51	20.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00	480.00
Ignition and Wire Dryers	6.39	31.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	30.00	216.60	240.00

NA = Not Available
Source: Westat, 1987a

Table 15-6. Frequency of Use and Amount of Product Used for Adhesive Removers

	No. of Times Used Within the Last 12 Months N = 58	Minutes Using N = 52	Minutes in Room After Using[a] N = 51	Minutes in Room After Using[b] N = 5	Amount Used in Past Year (Fluid oz.) N = 51	Amount per Use (Fluid oz.) N = 51
Mean	1.66	172.87	13.79	143.37	96.95	81.84
Standard deviation	1.67	304.50	67.40	169.31	213.20	210.44
Minimum Value	1.00	5.00	0.00	5.00	13.00	5.20
1st Percentile	1.00	5.00	0.00	5.00	13.00	5.20
5th Percentile	1.00	10.00	0.00	5.00	13.00	6.50
10th Percentile	1.00	15.00	0.00	5.00	16.00	10.67
25th Percentile	1.00	29.50	0.00	20.00	16.00	16.00
Median Value	1.00	120.00	0.00	120.00	32.00	26.00
75th Percentile	2.00	240.00	0.00	420.00	96.00	64.00
90th Percentile	3.00	480.00	0.00	420.00	128.00	128.00
95th Percentile	5.00	1440.00	120.00	420.00	384.00	192.00
99th Percentile	12.00	1440.00	420.00	420.00	1280.00	1280.00
Maximum Value	12.00	1440.00	420.00	1440.00	1280.00	1280.00

[a] Includes those who did not spend anytime in the room after use.
[b] Includes only those who spent time in the room.
Source: CPSC, 1992.

Table 15-7. Adhesive Remover Usage by Gender

	Gender	
	Male N = 25	Female N = 33
Mean number of months since last time adhesive remover was used - includes all respondents. (Unweighted N = 240)	35.33	43.89
Mean number of uses of product in the past year.	1.94	1.30
Mean number of minutes spent with the product during last use.	127.95	233.43
Mean number of minutes spent in the room after last use of product. (Includes all recent users)	19.76	0
Mean number of minutes spent in the room after last use of product. (Includes only those who did not leave immediately)	143.37	0
Mean ounces of product used in the past year.	70.48	139.71
Mean ounces of product used per use in the past year.	48.70	130.36

Source: CPSC, 1992.

Table 15-8. Frequency of Use and Amount of Product Used for Spray Paint

	No. of Times Used Within the Last 12 Months N = 775	Minutes Using N = 786	Minutes in Room After Using[a] N = 791	Minutes in Room After Using[b] N = 35	Amount Used in Past Year (Fluid oz.) N = 778	Amount per Use (Fluid oz.) N = 778
Mean	8.23	40.87	3.55	65.06	83.92	19.04
Standard deviation	31.98	71.71	22.03	70.02	175.32	25.34
Minimum Value	1.00	1.00	0.00	1.00	13.00	0.36
1st Percentile	1.00	1.00	0.00	1.00	13.00	0.36
5th Percentile	1.00	3.00	0.00	1.00	13.00	3.47
10th Percentile	1.00	5.00	0.00	10.00	13.00	6.50
25th Percentile	1.00	10.00	0.00	15.00	13.00	9.75
Median Value	2.00	20.00	0.00	30.00	26.00	13.00
75th Percentile	4.00	45.00	0.00	60.00	65.00	21.67
90th Percentile	11.00	90.00	0.00	120.00	156.00	36.11
95th Percentile	20.00	120.00	0.00	120.00	260.00	52.00
99th Percentile	104.00	360.00	120.00	300.00	1170.00	104.00
Maximum Value	365.00	960.00	300.00	300.00	1664.00	312.00

[a] Includes those who did not spend anytime in the room after use.
[b] Includes only those who spent time in the room.
Source: CPSC, 1992.

Table 15-9. Spray Paint Usage by Gender

	Gender	
	Male N = 405	Female N = 386
Mean number of months since last time spray paint was used - includes all respondents. (Unweighted N = 1724)	17.39	26.46
Mean number of uses of product in the past year.	10.45	4.63
Mean number of minutes spent with the product during last use.	40.87	40.88
Mean number of minutes spent in the room after last use of product. (Includes all recent users)	5.49	0.40
Mean number of minutes spent in the room after last use of product. (Includes only those who did not leave immediately)	67.76	34.69
Mean ounces of product used in the past year.	103.07	59.99
Mean ounces of product used per use in the past year.	18.50	19.92

Source: CPSC, 1992.

Table 15-10. Frequency of Use and Amount of Product Used for Paint Removers/Strippers

	No. of Times Used Within the Last 12 Months N = 316	Minutes Using N = 390	Minutes in Room After Using[a] N = 390	Minutes in Room After Using[b] N = 39	Amount Used in Past Year (Fluid oz.) N = 307	Amount per Use (Fluid oz.) N = 307
Mean	3.54	144.59	12.96	93.88	142.05	64.84
Standard deviation	7.32	175.54	85.07	211.71	321.73	157.50
Minimum Value	1.00	2.00	0.00	1.00	15.00	0.35
1st Percentile	1.00	5.00	0.00	1.00	15.00	2.67
5th Percentile	1.00	15.00	0.00	1.00	16.00	8.00
10th Percentile	1.00	20.00	0.00	3.00	16.00	10.67
25th Percentile	1.00	45.00	0.00	10.00	32.00	16.00
Median Value	2.00	120.00	0.00	60.00	64.00	32.00
75th Percentile	3.00	180.00	0.00	120.00	128.00	64.00
90th Percentile	6.00	360.00	10.00	180.00	256.00	128.00
95th Percentile	12.00	480.00	60.00	420.00	384.00	192.00
99th Percentile	50.00	720.00	180.00	1440.00	1920.00	320.00
Maximum Value	70.00	1440.00	1440.00	1440.00	3200.00	2560.00

[a] Includes those who did not spend anytime in the room after use.
[b] Includes only those who spent time in the room.
Source: CPSC, 1992.

Table 15-11. Paint Stripper Usage by Gender

	Gender	
	Male N = 156	Female N = 162
Mean number of months since last time paint stripper was used - includes all respondents. (Unweighted N = 1724)	32.07	47.63
Mean number of uses of product in the past year.	3.88	3.01
Mean number of minutes spent with the product during last use.	136.70	156.85
Mean number of minutes spent in the room after last use of product. (Includes all recent users)	15.07	9.80
Mean number of minutes spent in the room after last use of product. (Includes only those who did not leave immediately)	101.42	80.15
Mean ounces of product used in the past year.	160.27	114.05
Mean ounces of product used per use in the past year.	74.32	50.29

Source: CPSC, 1992.

Table 15-12. Total Exposure Time of Performing Task and Product Type Used by Task For Household Cleaning Products

Tasks	Mean (hrs/year)	Median (hrs/year)	Product Type Used	Percent of Preference
Clean Bathroom Sinks and Tubs	44	26	Liquid	29%
			Powder	44%
			Aerosol	16%
			Spray pump	10%
			Other	1%
Clean Kitchen Sinks	41	18	Liquid	31%
			Powder	61%
			Aerosol	2%
			Spray pump	4%
			Other	2%
Clean Inside of Cabinets (such as kitchen)	12	5	Liquid	68%
			Powder	12%
			Aerosol	2%
			Spray pump	16%
			Other	2%
Clean Outside of Cabinets	21	6	Liquid	61%
			Powder	8%
			Aerosol	16%
			Spray pump	13%
			Other	2%
Wipe Off Kitchen Counters	92	55	Liquid	67%
			Powder	13%
			Aerosol	2%
			Spray pump	15%
			Other	3%
Thoroughly Clean Counters	24	13	Liquid	56%
			Powder	21%
			Aerosol	5%
			Spray pump	17%
			Other	1%
Clean Bathroom Floors	20	9	Liquid	70%
			Powder	21%
			Aerosol	2%
			Spray pump	4%
			Other	3%
Clean Kitchen Floors	31	14	Liquid	70%
			Powder	27%
			Aerosol	2%
			Spray pump	1%
			Other	--
Clean Bathroom or Other Tilted or Ceramic Walls	16	9	Liquid	37%
			Powder	18%
			Aerosol	17%
			Spray pump	25%
			Other	3%

Table 15-12. Total Exposure Time of Performing Task and Product Type Used by Task For Household Cleaning Products (continued)

Tasks	Mean (hrs/year)	Median (hrs/year)	Product Type Used	Percent of Preference
Clean Outside of Windows	13	6	Liquid	27%
			Powder	2%
			Aerosol	6%
			Spray pump	65%
			Other	--
Clean Inside of Windows	18	6	Liquid	24%
			Powder	1%
			Aerosol	8%
			Spray pump	66%
			Other	2%
Clean Glass Surfaces Such as Mirrors & Tables	34	13	Liquid	13%
			Powder	1%
			Aerosol	8%
			Spray pump	76%
			Other	2%
Clean Outside of Refrigerator and Other Appliances	27	13	Liquid	48%
			Powder	3%
			Aerosol	7%
			Spray pump	38%
			Other	4%
Clean Spots or Dirt on Walls or Doors Finishes	19	8	Liquid	46%
			Powder	15%
			Aerosol	4%
			Spray pump	30%
			Other	4%

Source: Westat, 1987b.

Table 15-13. Percentile Rankings for Total Exposure Time in Performing Household Tasks

Tasks	Percentile Rankings for Total Exposure Exposure Time Performing Task (hrs/yr)							
	100th	95th	90th	75th	50th	25th	10th	0th
Clean Bathroom Sinks and Tubs	365	121.67	91.25	52	26	13	5.2	0.4
Clean Kitchen Sinks	547.5	121.67	97.6	60.83	18.25	8.67	3.47	0.33
Clean Inside of Kitchen Cabinets	208	48	32.48	12	4.75	2	1	0.17
Clean Outside of Cabinets	780	78.66	36	17.33	6	2	0.967	0.07
Wipe Off Kitchen Counters	912.5	456.25	231.16	91.25	54.75	24.33	12.17	1.2
Thoroughly Clean Counters	547.5	94.43	52	26	13	6	1.75	0.17
Clean Bathroom Floors	365	71.49	36.83	26	8.67	4.33	2	0.1
Clean Kitchen Floors	730	96.98	52	26	14	8.67	4.33	0.5
Clean Bathroom or Other Tilted or Ceramic Walls	208	52	36	26	8.67	3	1	0.17
Clean Outside of Windows	468	32.6	24	11.5	6	2	1.5	0.07
Clean Inside of Windows	273	72	36	19.5	6	3	1.15	0.07
Clean Glass Surfaces Such as Mirrors & Tables	1460	104	60.83	26	13	6	1.73	0.17
Clean Outside Refrigerator and Other Appliances	365	95.29	91.25	30.42	13	4.33	1.81	0.1
Clean Spots or Dirt on Walls or Doors	312	78	52	24	8	2	0.568	0.07

Source: Westat, 1987b.

Table 15-14. Mean Percentile Rankings for Frequency of Performing Household Tasks

Tasks	Mean	Percentile Rankings							
		0th	10th	25th	50th	75th	90th	95th	100th
Clean bathroom sinks and tubs	3 x/week	0.2 x/week	1 x/week	1 x/week	2 x/week	3.5 x/week	7 x/week	7 x/week	42 x/week
Clean kitchen sinks	7 x/week	0 x/week	1 x/week	2 x/week	7 x/week	7 x/week	15 x/week	21 x/week	28 x/week
Clean inside of cabinets such as those in the kitchen	9 x/year	1 x/year	1 x/year	1 x/year	2 x/year	12 x/year	12 x/year	52 x/year	156 x/year
Clean outside of cabinets	3 x/month	0.1 x/month	0.1 x/month	0.3 x/month	1 x/month	4 x/month	4 x/month	22 x/month	30 x/month
Wipe off counters such as those in the kitchen	2 x/day	0 x/day	0.4 x/day	1 x/day	1 x/day	3 x/day	4 x/day	6 x/day	16 x/day
Thoroughly clean counters	8 x/month	0.1 x/month	0.8 x/month	1 x/month	4 x/month	4 x/month	30 x/month	30 x/month	183 x/month
Clean bathroom floors	6 x/month	0.2 x/month	1 x/month	2 x/month	4 x/month	4 x/month	13 x/month	30 x/month	30 x/month
Clean kitchen floors	6 x/month	0.1 x/month	1 x/month	2 x/month	4 x/month	4 x/month	13 x/month	30 x/month	30 x/month
Clean bathroom or other tiled or ceramic walls	4 x/month	0.1 x/month	0.2 x/month	1 x/month	2 x/month	4 x/month	9 x/month	13 x/month	30 x/month
Clean outside of windows	5 x/year	1 x/year	1 x/year	1 x/year	2 x/year	4 x/year	12 x/year	12 x/year	156 x/year
Clean inside of windows	10 x/year	1 x/year	1 x/year	2 x/year	4 x/year	12 x/year	24 x/year	52 x/year	156 x/year
Clean other glass surfaces such as mirrors and tables	7 x/month	0.1 x/month	1 x/month	2 x/month	4 x/month	4 x/month	17 x/month	30 x/month	61 x/month
Clean outside of refrigerator and other appliances	10 x/month	0.2 x/month	1 x/month	2 x/month	4 x/month	13 x/month	30 x/month	30 x/month	61 x/month
Clean spots or dirt on walls or doors	6 x/month	0.1 x/month	0.2 x/month	0.3 x/month	1 x/month	4 x/month	13 x/month	30 x/month	152 x/month

Source: Westat, 1987b.

Table 15-15. Mean and Percentile Rankings for Exposure Time Per Event of Performing Household Tasks

Tasks	Mean (minutes/event)	Percentile Rankings (minutes/event)							
		0th	10th	25th	50th	75th	90th	95th	100th
Clean bathroom sinks and tubs	20	1	5	10	15	30	45	60	90
Clean kitchen sinks	10	1	2	3	5	10	15	20	480
Clean inside of cabinets such as those in the kitchen	137	5	24	44	120	180	240	360	2,880
Clean outside of cabinets	52	1	5	15	30	60	120	180	330
Wipe off counters such as those in the kitchen	9	1	2	3	5	10	15	30	120
Thoroughly clean counters	25	1	5	10	15	30	60	90	180
Clean bathroom floors	16	1	5	10	15	20	30	38	60
Clean kitchen floors	30	2	10	15	20	30	60	60	180
Clean bathroom or other tiled or ceramic walls	34	1	5	15	30	45	60	120	240
Clean outside of windows	180	4	30	60	120	240	420	480	1,200
Clean inside of windows	127	4	20	45	90	158	300	381	1,200
Clean other glass surfaces such as mirrors and tables	24	1	5	10	15	30	60	60	180
Clean outside of refrigerator and other appliances	19	1	4	5	10	20	30	45	240
Clean spots or dirt on walls or doors	50	1	5	10	20	60	120	216	960

Source: Westat, 1987b.

Table 15-16. Total Exposure Time for Ten Product Groups Most Frequently Used For Household Cleaning[a]

Products	Mean (hrs/yr)	Percentile Rankings of Total Exposure Time (hrs/yr)							
		0th	10th	25th	50th	75th	90th	95th	100th
Dish Detergents	107	0.2	6	24	56	134	274	486	941
Glass Cleaners	67	0.4	3	12	29	62	139	260	1,508
Floor Cleaners	52	0.7	4	7	22	52	102	414	449
Furniture Polish	32	0.1	0.3	1	12	36	101	215	243
Bathroom Tile Cleaners	47	0.5	2	8	17	48	115	287	369
Liquid Cleansers	68	0.2	2	9	22	52	122	215	2,381
Scouring Powders	78	0.3	9	17	35	92	165	281	747
Laundry Detergents	66	0.6	8	14	48	103	174	202	202
Rug Cleaners/Shampoos	12	0.3	0.3	0.3	9	26	26	26	26
All Purpose Cleaners	64	0.3	4	9	26	77	174	262	677

[a] The data in Table 15-15 above reflect for only the 14 tasks included in the survey. Therefore, many of the durations reported in the table underestimate the hours of the use of the product group. For example, use of dish detergents to wash dishes is not included.

Source: Westat, 1987b.

Table 15-17. Total Exposure Time of Painting Activity of Interior Painters (hrs)

Types of Paint	Mean (hrs)	Std. dev.	Percentile Rankings for Duration of Painting Activity (hrs)							
			Min.	10	25	50	75	90	95	Max.
Latex	12.2	11.28	1	3	4	9	15	24	40	248
Oil-based	10.68	15.56	1	1.6	3	6	10	21.6	65.6	72
Wood Stains and Varnishes	8.57	10.85	1	1	2	4	9.3	24	40	42

Source: Westat, 1987c.

Table 15-18. Exposure Time of Interior Painting Activity/Occasion (hrs) and Frequency of Occasions Spent Painting Per Year

Types of Paint	Duration of Painting/Occasion (hrs)		Frequency of Occasions Spent Painting/Year		Percentile Rankings for Frequency of Occasions Spent Painting							
	Mean	Median	Mean	Std. dev.	Min	10	25	50	75	90	95	Max.
Latex	2.97	3	4.16	5.54	1	1	2	3	4	9	10	62
Oil-based	2.14	3	5.06	11.98	1	1	1	2	4	8	26	72
Wood Stains and Varnishes	2.15	2	4.02	4.89	1	1	1	2	4	9	20	20

Source: Westat, 1987c.

Table 15-19. Amount of Paint Used by Interior Painters

Types of Paint	Median (gallons)	Mean (gallons)	Std. dev.	Percentile Rankings for Amount of Paint Used (gallons)							
				Min	10	25	50	75	90	95	Max.
Latex	3.0	3.89	4.56	0.13	1	2	3	5	8	10	50
Oil-based	2.0	2.55	3.03	0.13	0.25	0.5	2	3	7	12	12
Wood Stains and Varnishes	0.75	0.88	0.81	0.13	0.14	0.25	0.75	1	2	2	4.25

Source: Westat, 1987c.

Table 15-42. Amount and Frequency of Use of Various Cosmetic and Baby Products

Product Type	Amount of Product Per Application[a] (grams)	Average Frequency of Use (per day)			Upper 90th Percentile Frequency of Use (per day)		
		Survey Type			Survey Type		
		CTFA	Cosmetic Co.	Market[b] Research Bureau	CTFA	Cosmetic Co.	Market Research Bureau
Baby Lotion - baby use[c]	1.4	0.38	1.0	--	0.57	2.0	--
Baby Lotion - adult use	1.0	0.22	0.19	0.24[d]	0.86	1.0	1.0[d]
Baby Oil - baby use[c]	1.3	0.14	1.2	--	0.14	3.0	--
Baby Oil - adult use	5.0	0.06	0.13	--	0.29	0.57	--
Baby Powder - baby use[c]	0.8	5.36	1.5	0.35[d]	8.43	3.0	1.0[d]
Baby Powder - adult use	0.8	0.13	0.22	--	0.57	1.0	--
Baby Cream - baby use[c]	--	0.43	1.3	--	0.43	3.0	--
Baby Cream - adult use	--	0.07	0.10	--	0.14	0.14[e]	--
Baby Shampoo - baby use[c]	0.5	0.14	--	0.11[f]	0.14	--	0.43[f]
Baby Shampoo - adult use	5.0	0.02	--	--	0.86[e]	--	--
Bath Oils	14.7	0.08	0.19	0.22[g]	0.29	0.86	1.0[g]
Bath Tablets	--	0.003	0.008	--	0.14[e]	0.14[e]	--
Bath Salts	18.9	0.006	0.013	--	0.14[e]	0.14[e]	--
Bubble Baths	11.8	0.088	0.13	--	0.43	0.57	--
Bath Capsules	--	0.018	0.019	--	0.29[e]	0.14[e]	--
Bath Crystals	--	0.006	--	--	0.29[e]	0.14[e]	--
Eyebrow Pencil	--	0.27	0.49	--	1.0	1.0	--
Eyeliner	--	0.42	0.68	0.27	1.43	1.0	1.0
Eye Shadow	--	0.69	0.78	0.40	1.43	1.0	1.0
Eye Lotion	--	0.094	0.34	--	0.43	1.0	--
Eye Makeup Remover	--	0.29	0.45	--	1.0	1.0	--
Mascara	--	0.79	0.87	0.46	1.29	1.0	1.5
Under Eye Cover	--	0.79	--	--	0.29	--	--
Blusher & Rouge	0.011	1.18	1.24	0.55	2.0	1.43	1.5
Face Powders	0.085	0.35	0.67	0.33	1.29	1.0	1.0
Foundations	0.265	0.46	0.78	0.47	1.0	1.0	1.5
Leg and Body Paints	--	0.003	0.011	--	0.14[e]	0.14[e]	--
Lipstick & Lip Gloss	--	1.73	1.23	2.62	4.0	2.86	6.0
Makeup Bases	0.13	0.24	0.64	--	0.86	1.0	--
Makeup Fixatives	--	0.052	0.12	--	0.14	1.0	--
Sunscreen	3.18	0.003	--	0.002	0.14[e]	--	0.005
Colognes & Toilet Water	0.65	0.68	0.85	0.56	1.71	1.43	1.5
Perfumes	0.23	0.29	0.26	0.38	0.86	1.0	1.5

Table 15-42. Amount and Frequency of Use of Various Cosmetic and Baby Products (continued)

Product Type	Amount of Product Per Application[a] (grams)	Average Frequency of Use (per day)			Upper 90th Percentile Frequency of Use (per day)		
		Survey Type			Survey Type		
		CTFA	Cosmetic Co.	Market[b] Research Bureau	CTFA	Cosmetic Co.	Market Research Bureau
Powders	2.01	0.18	0.39	--	1.0	1.0	--
Sachets	0.2	0.0061	0.034	--	0.14[e]	0.14[e]	--
Fragrance Lotion	--	0.0061	--	--	0.29[e]	--	--
Hair Conditioners	12.4	0.4	0.40	0.27	1.0	1.0	0.86
Hair Sprays	--	0.25	0.55	0.32	1.0	1.0	1.0
Hair Rinses	12.7	0.064	0.18	--	0.29	1.0	--
Shampoos	16.4	0.82	0.59	0.48	1.0	1.0	1.0
Tonics and Dressings	2.85	0.073	0.021	--	0.29	0.14[e]	--
Wave Sets	2.6	0.003[h]	0.040	--	--[h]	0.14	--
Dentifrices	--	1.62	0.67	2.12	2.6	2.0	4.0
Mouthwashes	--	0.42	0.62	0.58	1.86	1.14	1.5
Breath Fresheners	--	0.052	0.43	0.46	0.14	1.0	0.57
Nail Basecoats	0.23	0.052	0.13	--	0.29	0.29	--
Cuticle Softeners	0.66	0.040	0.10	--	0.14	0.29	--
Nail Creams & Lotions	0.56	0.070	0.14	--	0.29	0.43	--
Nail Extenders	--	0.003	0.013	--	0.14[e]	0.14[e]	--
Nail Polish & Enamel	0.28	0.16	0.20	0.07	0.71	0.43	1.0
Nail Polish & Enamel Remover	3.06	0.088	0.19	--	0.29	0.43	--
Nail Undercoats	--	0.049	0.12	--	0.14	0.29	--
Bath Soaps	2.6	1.53	0.95	--	3.0	1.43	--
Underarm Deodorants	0.52	1.01	0.80	1.10	1.29	1.29	2.0
Douches	--	0.013	0.089	0.085	0.14[e]	0.29	0.29
Feminine Hygiene Deodorants	--	0.021	0.084	0.05	1.0[e]	0.29	0.14
Cleansing Products (cold creams, cleansing lotions liquids & pads)	1.7	0.63	0.80	0.54	1.71	2.0	1.5
Depilatories	--	0.0061	0.051	0.009	0.016	0.14	0.033
Face, Body & Hand Preps (excluding shaving preps)	3.5	0.65	--	1.12	2.0	--	2.14
Foot Powder & Sprays	--	0.061	0.079	--	0.57[e]	0.29	--
Hormones	--	0.012	0.028	--	0.57[e]	0.14[e]	--
Moisturizers	0.53	0.98	0.88	0.63	2.0	1.71	1.5
Night Skin Care Products	1.33	0.18	0.50	--	1.0	1.0	--

Table 15-42. Amount and Frequency of Use of Various Cosmetic and Baby Products (continued)

Product Type	Amount of Product Per Application[a] (g)	Average Frequency of Use (per day)			Upper 90th Percentile Frequency of Use (per day)		
		Survey Type			Survey Type		
		CTFA	Cosmetic Co.	Market[b] Research Bureau	CTFA	Cosmetic Co.	Market Research Bureau
Paste Masks (mud packs)	3.7	0.027	0.20	--	0.14	0.43	--
Skin Lighteners	--	--	0.024	--	--[d]	0.14[d]	--
Skin Fresheners & Astringents	2.0	0.33	0.56	--	1.0	1.43	--
Wrinkle Smoothers (removers)	0.38	0.021	0.15	--	1.0[d]	1.0	--
Facial Cream	0.55	0.0061	--	--	0.0061	--	--
Permanent Wave	101	0.003	--	0.001	0.0082	--	0.005
Hair Straighteners	0.156	0.0007	--	--	0.005[d]	--	--
Hair Dye	--	0.001	--	0.005	0.004[d]	--	0.014
Hair Lighteners	--	0.0003	--	--	0.005[d]	--	--
Hair Bleaches	--	0.0005	--	--	0.02[d]	--	--
Hair Tints	--	0.0001	--	--	0.005[d]	--	--
Hair Rinse (coloring)	--	0.0004	--	--	0.02[d]	--	--
Shampoo (coloring)	--	0.0005	--	--	0.02[d]	--	--
Hair Color Spray	--	--	--	--	--[d]	--	--
Shave Cream	1.73	--	--	0.082	--	--	0.36

[a] Values reported are the averages of the responses reported by the twenty companies interviewed. (--'s) indicate no data available.

[b] The averages shown for the Market Research Bureau are not true averages - this is due to the fact that in many cases the class of most frequent users were indicated by "1 or more" also ranges were used in many cases, i.e., "10-12." The average, therefore, is underestimated slightly. The "1 or more" designation also skew the 90th percentile figures in many instances. The 90th percentile values may, in actuality, be somewhat higher for many products.

[c] Average usage among users only for baby products.

[d] Usage data reflected "entire household" use for both baby lotion and baby oil.

[e] Fewer than 10% of individuals surveyed used these products. Value listed is lowest frequency among individuals reporting usage. In the case of wave sets, skin lighteners, and hair color spray, none of the individuals surveyed by the CTFA used this product during the period of the study.

[f] Usage data reflected "entire household" use.

[g] Usage data reflected total bath product usage.

[h] None of the individuals surveyed reported using this product.

Source: CTFA, 1983.

Table 15-43. Summary of Consumer Products Use Studies

Study	Study Size	Approach	Relevant Population	Comments
KEY STUDIES				
CPSC, 1992	4,997 product interviews; 527 mailed questionnaires	Direct - interviews and questionnaires	Adults	Random digit dialing method used to select sample. Information on use of 3 products containing methyl chloride was requested.
Westat, 1987a	4,920 individuals	Direct - questionnaire	18+ yrs selected to be representative of US population	Waksberg Method (random digit dialing) used to select sample. Respondents asked to recall use in past 2 months of 32 catagories of household products containing methyl chloride.
Westat, 1987b	193 households	Direct - telephone survey; 2 post-survey validation efforts: 30 reinterviewed, then another 50 reeinterviewed	Adult household members who do cleaning tasks in household	Waksberg Method (random digit dialing) used to select sample. Household use of cleaning products requested. Phone survey during end of year holidays may reflect biased usage data. Two validation resurveys conducted 3 months after survey.
Westat, 1987c	777 households	Direct - telephone survey; 1 post-survey validation effort conducted with 30 reinterviewed	Household members who do painting tasks in household	Waksberg Method (random digit dialing) used to select sample. Painting product use information in past 12 months was requested. One validation resurvey conducted 3 months after survey.
Tsang and Klepeis, 1996	9,386 individuals	Direct - interviews and questionnaires	Representative of U.S. general population	National Human Activity Patterns Survey (NHAPS). Participants selected using random Dial Digit (RDD) and Computer Assisted Telephone Interviewing (CATI). 24-hour diary data, and follow-up questions; nationally representative; represent all seasons, age groups, and genders.
RELEVANT STUDY				
CTFA, 1983	Survey 1: 47 women employees and relatives or employees Survey 2: 1,129 cosmetics purchasers Survey 3: 19,035 females	Survey 1: Direct - 1 wk prospective survey Survey 2: Direct - prospective survey Survey 3: Direct - 9.5 months. prospective survey	Survey 1: 16-61 yr old females Survey 2: Customers of cosmetic manufacturer Survey 3: Market research company sampled female consumers nationwide	Interviewees asked to recall their use of cosmetics and some baby products during a specific past time period. Surveys 1 and 2 had small populations, but Survey 3 had large population selected to be representative of U.S. population

APPENDIX 15A
Simmons Market Research Data

Table 15A-1. Volumes Included in 1992 Simmons Study

The volumes included in the Media series are as follows:	
M1	Publications: Total Audiences
M2	Publications: Qualitative Measurements And In-Home Audiences
M3	Publications: Duplication Of Audiences
M4	Multi-Media Audiences: Adults
M5	Multi-Media Audiences: Males
M6	Multi-Media Audiences: Females and Mothers
M7	Business To Business
M8	Multi-Media Reach and Frequency and Television Attentiveness & Special Events
The following volumes are included in the Product series:	
P1	Automobiles, cycles, Trucks & Vans
P2	Automotive Products & Services
P3	Travel
P4	Banking, Investments, Insurance, Credit Cards & Contributions, Memberships & Public Activities
P5	Games & Toys, Children's & Babies' Apparel & Specialty Products
P6	Computers, Books, Discs, Records, Tapes, Stereo, Telephones, TV & Video
P7	Appliances, Garden Care, Sewing & Photography
P8	Home Furnishings & Home Improvements
P9	Sports & Leisure
P10	Restaurants, Stores & Grocery Shopping
P11	Direct Mail & Other In-Home Shopping, Yellow Pages, Florist, Telegrams, Faxes & Greeting Cards
P12	Jewelry, Watches, Luggage, Writing Tools & Men's Apparel
P13	Women's Apparel
P14	Distilled Spirits, Mixed Drinks, Malt Beverages, Wine & Tobacco Products
P15	Coffee, Tea, Cocoa, Milk, Soft Drinks, Juices & Bottled Water
P16	Dairy Products, Desserts, Baking & Bread Products
P17	Cereals & Spreads, Rice, Pasta, Pizza, Mexican Foods, Fruits & Vegetables
P18	Soup, Meat, Fish, Poultry, Condiments & Dressings
P19	Chewing Gum, Candy, Cookies & Snacks
P20	Soap, Laundry, Paper Products & Kitchen Wraps
P21	Household Cleaners, Room Deodorizers, Pest Controls & Pet Foods
P22	Health Care Products & Remedies
P23	Oral Hygiene Products, Skin Care, Deodorants & Drug Stores
P24	Hair Care, Shaving Products & Fragrances
P25	Women's Beauty Aids, Cosmetics & Personal Products
P26	Relative Volume of Consumption