

APPENDIX A:
Proposed Amendments to the
Consumer Products Regulation, the
Antiperspirants and Deodorants Regulation, the
Aerosol Coating Products Regulation,
and Revisions to Test Method 310

Proposed Regulation Order
REGULATION FOR REDUCING VOLATILE ORGANIC COMPOUND
EMISSIONS FROM CONSUMER PRODUCTS

SUBCHAPTER 8.5 CONSUMER PRODUCTS

[Note: Proposed amendments are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions.]

Amend title 17, California Code of Regulations, Sections 94507, 94508, 94509, 94510, 94512, 94513, and 94515 as follows:

Article 2. Consumer Products

94507. Applicability

Except as provided in Sections 94509~~(i)~~(j) and 94510, this article shall apply to any person who sells, supplies, offers for sale, or manufactures consumer products for use in the state of California.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code.
Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94508. Definitions

(a) For the purpose of this article, the following definitions apply:

~~(1)~~ (1) "Adhesive" means any product that is used to bond one surface to another by attachment. "Adhesive" does not include products used on humans and animals, adhesive tape, contact paper, wallpaper, shelf liners, or any other product with an adhesive incorporated onto or in an inert substrate. For "Contact Adhesive," "Construction, Panel, and Floor Covering Adhesive," and "General Purpose Adhesive" only, "adhesive" also does not include units of product, less packaging, which weigh more than one pound and consist of more than 16 fluid ounces. This limitation does not apply to aerosol adhesives.

~~(2)~~ (2) "Adhesive Remover" means a product designed ~~exclusively for the removal of to~~ remove adhesives, caulk and other bonding materials from either a specific substrate or a variety of substrates. "Adhesive Removers" do not include products that remove adhesives intended for use on humans or animals.

For the purpose of this definition and "Adhesive Remover" subcategories (A-D), the term "adhesive" shall mean a substance used to bond one or more materials.

Adhesive includes, but is not limited to: caulks; sealants; glues; or similar substances used for the purpose of forming a bond.

- (A) "Floor or Wall Covering Adhesive Remover" means a product designed or labeled to remove floor or wall coverings and associated adhesive from the underlying substrate.
- (B) "Gasket or Thread Locking Adhesive Remover" means a product designed or labeled to remove gaskets or thread locking adhesives. Products labeled for dual use as a paint stripper and gasket remover and/or thread locking adhesive remover are considered "Gasket or Thread Locking Adhesive Remover."
- (C) "General Purpose Adhesive Remover" means a product designed or labeled to remove cyanoacrylate adhesives as well as non-reactive adhesives or residue from a variety of substrates. "General Purpose Adhesive Remover" includes, but is not limited to, products that remove thermoplastic adhesives; pressure sensitive adhesives; dextrine or starch-based adhesives; casein glues; rubber or latex-based adhesives; as well as products that remove stickers; decals; stencils; or similar materials. "General Purpose Adhesive Remover" does not include "Floor or Wall Covering Adhesive Remover."
- (D) "Specialty Adhesive Remover" means a product designed to remove reactive adhesives from a variety of substrates. Reactive adhesives include adhesives that require a hardener or catalyst in order for the bond to occur. Examples of reactive adhesives include, but are not limited to: epoxies; urethanes; silicones. "Specialty Adhesive Remover" does not include "Gasket or Thread Locking Adhesive Remover."

~~(3)~~(3) "Aerosol Adhesive" means any adhesive packaged as an aerosol product in which the spray mechanism is permanently housed in a nonrefillable can designed for hand-held application without the need for ancillary hoses or spray equipment. Aerosol adhesives include special purpose spray adhesives, mist spray adhesives, and web spray adhesives.

~~(4)~~(4) "Aerosol Cooking Spray" means any aerosol product designed either to reduce sticking on cooking and baking surfaces or to be applied on food, or both.

~~(5)~~(5) "Aerosol Product" means a pressurized spray system that dispenses product ingredients by means of a propellant contained in a product or a product's container, or by means of a mechanically induced force. "Aerosol Product" does not include ~~pump sprays~~ "Pump Spray".

~~(6)~~(6) "Agricultural Use" means the use of any pesticide or method or device for the control of pests in connection with the commercial production, storage or

processing of any animal or plant crop. "Agricultural Use" does not include the sale or use of pesticides in properly labeled packages or containers which are intended for: (A) Home use, (B) Use in structural pest control, or (C) Industrial or Institutional use. For the purposes of this definition only:

"Home use" means use in a household or its immediate environment.

"Structural pest control" means a use requiring a license under Chapter 14 (commencing with Section 8500), Division 3, of the Business and Professions Code.

"Industrial use" means use for or in a manufacturing, mining, or chemical process or use in the operation of factories, processing plants, and similar sites.

"Institutional use" means use within the lines of, or on property necessary for the operation of buildings such as hospitals, schools, libraries, auditoriums, and office complexes.

~~(7)~~(7) "Air Freshener" means any consumer product including, but not limited to, sprays, wicks, powders, and crystals, designed for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. "Air Freshener" includes dual purpose air freshener/disinfectant products. "Air Freshener" does not include products that are used on the human body, or products that function primarily as cleaning products as indicated on a product label, or advertisement, or "Toilet/Urinal Care Product."

~~(8)~~(8) "All Other Carbon-Containing Compounds" means all other compounds which contain at least one carbon atom and are not a "Table B" or a "LVP-VOC."

~~(9)~~(9) "All Other Forms" means all consumer product forms for which no form-specific VOC standard is specified. Unless specified otherwise by the applicable VOC standard, "all other forms" include, but are not limited to, solids, liquids, wicks, powders, crystals, and cloth or paper wipes (towelettes).

~~(10)~~(10) "Antimicrobial Hand or Body Cleaner or Soap" means a cleaner or soap which is designed to reduce the level of microorganisms on the skin through germicidal activity, and is regulated as an over-the-counter drug by the U.S. Food and Drug Administration. "Antimicrobial Hand or Body Cleaner or Soap" includes, but is not limited to, (A) antimicrobial hand or body washes/cleaners, (B) foodhandler hand washes, (C) healthcare personnel hand washes, (D) pre-operative skin preparations and (E) surgical scrubs. "Antimicrobial Hand or Body Cleaner or Soap" does not include prescription drug products, antiperspirants, "Astringent/Toner," deodorant, "Facial Cleaner or Soap," "General-use Hand or Body Cleaner or Soap," "Hand Dishwashing Detergent" (including antimicrobial),

July 11, 2011

217/622-0800

Rick Davis
P.O. Box 222
Ashmore, IL 61912

RE: Resolution of Replacement Check Issue
Basic Steward Training/Westmont
General Account Check No.: 13778

Mr. Davis:

Enclosed is the second of two checks intended to replace check number 13778, dated and sent to you on June 3, 2011 for mileage reimbursement to attend the Steward Training in Westmont on May 21, 2011. The first check in the amount of \$125.00 was in error as you and I never got to the amount. At the close of the fiscal year (June 30, 2011) the Local's books, receipts, etc. are delivered to an accountant who prepares/organizes them for the yearly audit.

I had no records when you and I talked.

The records were returned to the Local Office the evening of July 7. The amount on the check sent you represents the standard reimbursement from a Steward Training Voucher, which uses a flat fee rather than the .51 per mile. I saw your voucher today after you called and realized it was a Steward Travel and Expense Voucher that allowed for mileage calculation. It also reminded me of revisions I made.

I am attaching a copy of the original travel voucher. The revisions for travel were made when the original check was processed. I adjusted the number from 55.5 to 51.0 on all vouchers from the training. The IRS revised reimbursable amount of 55.5 went into effect July, 1, 2011.

I very much regret you have had to wait so long for your reimbursement. Things did not line up the way they usually do. I can be reached on my cell at 217/622-0800 or my Treasurer's email at the Local Office at mmccabe@ift-aft.org.

Sincerely,

Michael J. McCabe
Treasurer/Steward
IFT/IFPE Local 4408

Cc: file

"Heavy-duty Hand Cleaner or Soap," "Medicated Astringent/Medicated Toner," and "Rubbing Alcohol."

(11) "Anti-Static Product" means a product that is labeled to eliminate, prevent, or inhibit the accumulation of static electricity. "Anti-Static Product" does not include "Electronic Cleaner," "Floor Polish or Wax," "Floor Coating," and products that meet the definition of "Aerosol Coating Product" or "Architectural Coating".

~~(11)~~(12) "Architectural Coating" means a coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs.

~~(12)~~(13) "ASTM" means the American Society for Testing and Materials.

~~(13)~~(14) "Astringent/Toner" means any product not regulated as a drug by the United States Food and Drug Administration (FDA) which is applied to the skin for the purpose of cleaning or tightening pores. This category also includes clarifiers and substrate-impregnated products. This category does not include any hand, face, or body cleaner or soap product, "Medicated Astringent/Medicated Toner", "Personal Fragrance Product", cold cream, lotion, or antiperspirant.

~~(14)~~(15) "Automotive Brake Cleaner" means a cleaning product designed to remove oil, grease, brake fluid, brake pad material or dirt from motor vehicle brake mechanisms.

~~(15)~~(16) "Automotive Hard Paste Wax" means an automotive wax or polish which is: (A) designed to protect and improve the appearance of automotive paint surfaces; and (B) a solid at room temperature; and (C) contains 0% water by formulation.

~~(16)~~(17) "Automotive Instant Detailer" means a product designed for use in a pump spray that is applied to the painted surface of automobiles and wiped off prior to the product being allowed to dry.

~~(17)~~(18) "Automotive Rubbing or Polishing Compound" means a product designed primarily to remove oxidation, old paint, scratches or "swirl marks", and other defects from the painted surfaces of motor vehicles without leaving a protective barrier.

~~(18)~~(19) "Automotive Wax, Polish, Sealant or Glaze" means a product designed to seal out moisture, increase gloss, or otherwise enhance a motor vehicle's painted surfaces. "Automotive Wax, Polish, Sealant or Glaze" includes, but is not limited to, products designed for use in autobody repair shops and "drive-through" car washes, as well as products designed for the general public. "Automotive Wax, Polish, Sealant or Glaze" does not include "Automotive Rubbing or Polishing Compounds", automotive wash and wax products, surfactant-containing car

wash products, and products designed for use on unpainted surfaces such as bare metal, chrome, glass, or plastic.

~~(19)~~(20) "Automotive Windshield Washer Fluid (Dilutable)" means any liquid which meets the following criteria:

- (A) the product is sold either in a container with a capacity of 55 gallons or more, or a container with a capacity of one quart or less; and
- (B) the product is designed for use in a motor vehicle windshield washer fluid system either as an anti-freeze or for the purpose of cleaning, washing, bug removal, or wetting the windshield(s).

"Automotive Windshield Washer Fluid (Dilutable)" does not include any fluid which is placed in a new motor vehicle at the time the vehicle is manufactured.

~~(20)~~(21) "Automotive Windshield Washer Fluid (Pre-Mixed)" means any liquid which meets the following criteria:

- (A) the product is sold in a container with a capacity that is greater than one quart, but less than 55 gallons; and
- (B) the product is designed for use in a motor vehicle windshield washer fluid system as an anti-freeze or for the purpose of cleaning, washing, bug removal, or wetting the windshield(s).

"Automotive Windshield Washer Fluid (Pre-Mixed)" does not include any fluid which is placed in a new motor vehicle at the time the vehicle is manufactured.

~~(21)~~(22) "Bathroom and Tile Cleaner" means a product designed to clean tile or surfaces in bathrooms. "Bathroom and Tile Cleaner" does not include products specifically designed primarily to clean toilet bowls, ~~or toilet tanks,~~ or urinals.

~~(22)~~(23) "Bug and Tar Remover" means a product ~~designed~~ labeled to remove either or both of the following from painted motor vehicle surfaces without causing damage to the finish: (A) biological-type residues such as insect carcasses and tree sap and, (B) road grime, such as road tar, roadway paint markings, and asphalt.

~~(23)~~(24) "California Sales" means the sales (net pounds of product, less packaging and container, per year) in California for either the calendar year immediately prior to the year that the registration information required by the Executive Officer pursuant to section 94513 (required information) is due or, if that data is not available, any consecutive 12 month period commencing no earlier than 2 years prior to the due date of the registration required information. If direct sales data for California is not available, sales may be estimated by prorating national or regional sales data by population.

~~(24)~~(25) "Carburetor or Fuel-Injection Air Intake Cleaners" means a product designed to remove fuel deposits, dirt, or other contaminants from a carburetor, choke, throttle body of a fuel-injection system, or associated linkages. "Carburetor or fuel-injection air intake cleaners" does not include products designed exclusively to be introduced directly into the fuel lines or fuel storage tank prior to introduction into the carburetor or fuel injectors.

~~(25)~~(26) "Carpet and Upholstery Cleaner" means a cleaning product designed for the purpose of eliminating dirt and stains on rugs, carpeting, and the interior of motor vehicles and/or on household furniture or objects upholstered or covered with fabrics such as wool, cotton, nylon or other synthetic fabrics. "Carpet and Upholstery Cleaner" includes, but is not limited to, products that make fabric protectant claims. "Carpet and Upholstery Cleaner" does not include "General Purpose Cleaners", "Spot Removers", vinyl or leather cleaners, dry cleaning fluids, or products designed exclusively for use at industrial facilities engaged in furniture or carpet manufacturing.

~~(26)~~(27) "Charcoal Lighter Material" means any combustible material designed to be applied on, incorporated in, added to, or used with charcoal to enhance ignition. "Charcoal Lighter Material" does not include any of the following: (A) electrical starters and probes, (B) metallic cylinders using paper tinder, (C) natural gas, (D) propane, and (E) fat wood.

~~(27)~~(28) "Colorant" means any pigment or coloring material used in a consumer product for an aesthetic effect, or to dramatize an ingredient.

~~(28)~~(29) "Construction, Panel, and Floor Covering Adhesive" means any one-component adhesive that is designed exclusively for the installation, remodeling, maintenance, or repair of: (A) structural and building components that include, but are not limited to, beams, trusses, studs, paneling (drywall or drywall laminates, fiberglass reinforced plastic (FRP), plywood, particle board, insulation board, pre-decorated hardboard or tileboard, etc.), ceiling and acoustical tile, molding, fixtures, countertops or countertop laminates, cove or wall bases, and flooring or subflooring; or (B) floor or wall coverings that include, but are not limited to, wood or simulated wood covering, carpet, carpet pad or cushion, vinyl-backed carpet, flexible flooring material, nonresilient flooring material, mirror tiles and other types of tiles, and artificial grass. "Construction, Panel, and Floor Covering Adhesive" does not include "Floor Seam Sealer".

~~(29)~~(30) "Consumer" means any person who seeks, purchases, or acquires any consumer product for personal, family, household, or institutional use. Persons acquiring a consumer product for resale are not "consumers" for that product.

~~(30)~~(31) "Consumer Product" means a chemically formulated product used by household and institutional consumers including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home,

lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. As used in this article, the term "consumer product" shall also refer to aerosol adhesives, including aerosol adhesives used for consumer, industrial, and commercial uses.

~~(31)~~(32) "Contact Adhesive" means an adhesive that: (A) is designed for application to both surfaces to be bonded together, and (B) is allowed to dry before the two surfaces are placed in contact with each other, and (C) forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other, and (D) does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces. "Contact Adhesive" does not include rubber cements that are primarily intended for use on paper substrates. "Contact Adhesive" also does not include vulcanizing fluids that are designed and labeled for tire repair only.

(33) "Contact Adhesive - General Purpose" means any contact adhesive that is not a "Contact Adhesive - Special Purpose".

(34) "Contact Adhesive - Special Purpose" means a contact adhesive that: (A) is used to bond melamine-covered board, unprimed metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber, high pressure laminate or wood veneer 1/16 inch or less in thickness to any porous or nonporous surface, and is sold in units of product, less packaging, that contain more than eight fluid ounces, or (B) is used in automotive applications that are (1.) automotive under-the-hood applications requiring heat, oil or gasoline resistance, or (2.) body-side molding, automotive weatherstrip or decorative trim.

~~(32)~~(35) "Container/Packaging" means the part or parts of the consumer or institutional product which serve only to contain, enclose, incorporate, deliver, dispense, wrap or store the chemically formulated substance or mixture of substances which is solely responsible for accomplishing the purposes for which the product was designed or intended. "Container/Packaging" includes any article onto or into which the principal display panel and other accompanying literature or graphics are incorporated, etched, printed or attached.

~~(33)~~(36) "Crawling Bug Insecticide" means any insecticide product that is designed for use against ants, cockroaches, or other household crawling arthropods, including, but not limited to, mites, silverfish or spiders. "Crawling Bug Insecticide" does not include products designed to be used exclusively on humans or animals, or any house dust mite product. For the purposes of this definition only:

"House dust mite product" means a product whose label, packaging, or accompanying literature states that the product is suitable for use against

house dust mites, but does not indicate that the product is suitable for use against ants, cockroaches, or other household crawling arthropods.

"House dust mite" means mites which feed primarily on skin cells shed in the home by humans and pets and which belong to the phylum Arthropoda, the subphylum Chelicerata, the class Arachnida, the subclass Acari, the order Astigmata, and the family Pyroglyphidae.

(37) "Deodorant Body Spray" means:

(A) for products manufactured before January 1, 2006: a "Personal Fragrance Product" with 20 percent or less fragrance.

(B) for products manufactured on or after January 1, 2006: a "Personal Fragrance Product" with 20 percent or less fragrance, that is designed for application all over the human body to provide a scent. A "Deodorant Body Spray" product that indicates or depicts on the container or packaging, or on any sticker or label affixed thereto, that it can be used on or applied to the human axilla, is a "Deodorant" as defined in section 94501(d).

~~(34)~~(38) "Device" means any instrument or contrivance (other than a firearm) which is designed for trapping, destroying, repelling, or mitigating any pest or any other form of plant or animal life (other than man and other than bacteria, virus, or other microorganism on or in living man or other living animals); but not including equipment used for the application of pesticides when sold separately therefrom.

~~(35)~~(39) "Disinfectant" means any product intended to destroy or irreversibly inactivate infectious or other undesirable bacteria, pathogenic fungi, or viruses on surfaces or inanimate objects and whose label is registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 U.S.C. 136, et seq.). "Disinfectant" does not include any of the following: (A) products designed solely for use on human or animals, (B) products designed for agricultural use, (C) products designed solely for use in swimming pools, therapeutic tubs, or hot tubs, (D) products which, as indicated on the principal display panel or label, are designed primarily for use as bathroom and tile cleaners, glass cleaners, general purpose cleaners, toilet bowl cleaners, or metal polishes.

~~(36)~~(40) "Distributor" means any person to whom a consumer product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.

~~(37)~~(41) "Double Phase Aerosol Air Freshener" means an aerosol air freshener with the liquid contents in two or more distinct phases that requires the product container be shaken before use to mix the phases, producing an emulsion.

~~(38)~~(42) "Dry Cleaning Fluid" means any non-aqueous liquid product designed and labeled exclusively for use on: (1) fabrics which are labeled "for dry clean only", such as clothing or drapery; or (2) "S-coded" fabrics. "Dry Cleaning Fluid" includes, but is not limited to, those products used by commercial dry cleaners and commercial businesses that clean fabrics such as draperies at the customer's residence or work place. "Dry Cleaning Fluid" does not include "Spot Remover" or "Carpet and Upholstery Cleaner". For the purposes of this definition, S-coded fabric means an upholstery fabric designed to be cleaned only with water-free spot cleaning products as specified by the Joint Industry Fabric Standards Committee."

~~(39)~~(43) "Dual Purpose Air Freshener/Disinfectant" means an aerosol product that is represented on the product container for use as both a disinfectant and an air freshener, or is so represented on any sticker, label, packaging, or literature attached to the product container.

~~(40)~~(44) "Dusting Aid" means a product designed to assist in removing dust and other soils from floors and other surfaces without leaving a wax or silicone based coating. "Dusting Aid" does not include "Pressurized Gas Duster." ~~products which consist entirely of compressed gases for use in electronic or other specialty areas.~~

(45) "Electrical Cleaner" means a product labeled to remove heavy soils such as grease, grime, or oil from electrical equipment, including, but not limited to, electric motors, armatures, relays, electric panels, or generators. Electrical Cleaner does not include "General Purpose Cleaner," "General Purpose Degreaser," "Dusting Aid," "Electronic Cleaner," "Energized Electrical Cleaner," "Pressurized Gas Duster," "Engine Degreaser," "Anti-Static Product," or products designed to clean the casings or housings of electrical equipment.

~~(41)~~(46) "Electronic Cleaner" means a product designed labeled specifically for the removal of dirt, grease, or grime moisture, dust, flux, or oxides from electrical the internal components of electronic or precision equipment such as electric motors, circuit boards, electricity panels, and generators and the internal components of electronic devices, including but not limited to, radios, compact disc (CD) players, digital video disc (DVD) players, and computers. Electronic Cleaner does not include "General Purpose Cleaner," "General Purpose Degreaser," "Dusting Aid," "Pressurized Gas Duster," "Engine Degreaser," "Electrical Cleaner," "Energized Electrical Cleaner," "Anti-Static Product," or products designed to clean the casings or housings of electronic equipment.

(47) "Energized Electrical Cleaner" means a product that meets both of the following criteria:

- 1) the product is labeled to clean and/or degrease electrical equipment, where cleaning and/or degreasing is accomplished when electrical current exists, or

when there is a residual electrical potential from a component, such as a capacitor:

- 2) the product label clearly displays the statements: "Energized Equipment use only. Not to be used for motorized vehicle maintenance, or their parts."

"Energized Electrical Cleaner" does not include "Electronic Cleaner."

~~(42)~~(48) "Engine Degreaser" means a cleaning product designed to remove grease, grime, oil and other contaminants from the external surfaces of engines and other mechanical parts.

~~(43)~~(49) "Executive Officer" means the Executive Officer of the Air Resources Board, or his or her delegate.

~~(44)~~(50) "Existing Product" means any formulation of the same product category and form sold, supplied, manufactured, or offered for sale in California prior to the following dates, or any subsequently introduced identical formulation:

- (A) October 21, 1991, for all products listed in section 94509(a) that have initial effective dates of January 1, 1993, or January 1, 1994;
- (B) January 6, 1993, for all products listed in section 94509(a) that have initial effective dates of January 1, 1995, or January 1, 1997, and charcoal lighter materials subject to section 94509~~(h)~~(i);
- (C) August 18, 1998, for all products listed in section 94509(a) that have initial effective dates of January 1, 2001, January 1, 2002, January 1, 2003, or January 1, 2005;
- (D) the operative date of the "Mid-term Measures II" amendments (i.e. 30 days after the "Mid-term Measures II" rulemaking action is approved by the Office of Administrative Law), for all products in the following product categories listed in section 94509(a): "Non-aerosol General Purpose Degreaser," "Sealant and Caulking Compound," and "Tire Sealant and Inflator."

~~(45)~~(51) "Fabric Protectant" means a product designed to be applied to fabric substrates to protect the surface from soiling from dirt and other impurities or to reduce absorption of liquid into the fabric's fibers. "Fabric Protectant" does not include waterproofers, products designed for use solely on leather, or products designed for use solely on fabrics which are labeled "for dry clean only" and sold in containers of 10 fluid ounces or less.

(52) "Fabric Refresher" means a product labeled to neutralize or eliminate odors on fabric including, but not limited to, soft household surfaces, rugs, carpeting, draperies, bedding, automotive interiors, footwear, athletic equipment, clothing and/or on household furniture or objects upholstered or covered with fabrics such

as wool, cotton, nylon, or other synthetic fabrics. "Fabric Refresher" does not include "Anti-static Product," "Carpet and Upholstery Cleaner," "Footwear or Leather Care Product," "Spot Remover," or "Disinfectant," or products labeled for application to both fabric and human skin.

~~(46)~~(53) "Facial Cleaner or Soap" means a cleaner or soap designed primarily to clean the face. "Facial Cleaner or Soap" includes, but is not limited to, facial cleansing creams, gels, semisolids, liquids, lotions, and substrate-impregnated forms. "Facial Cleaner or Soap" does not include prescription drug products, "Antimicrobial Hand or Body Cleaner or Soap," "Astringent/Toner," "General-use Hand or Body Cleaner or Soap," "Medicated Astringent/Medicated Toner," or "Rubbing Alcohol."

~~(47)~~(54) "Fat Wood" means pieces of wood kindling with high naturally-occurring levels of sap or resin which enhance ignition of the kindling. "Fat wood" does not include any kindling with substances added to enhance flammability, such as wax-covered or wax-impregnated wood-based products.

~~(48)~~(55) "Flea and Tick Insecticide" means any insecticide product that is designed for use against fleas, ticks, their larvae, or their eggs. "Flea and Tick Insecticide" does not include products that are designed to be used exclusively on humans or animals and their bedding.

~~(49)~~(56) "Flexible Flooring Material" means asphalt, cork, linoleum, no-wax, rubber, seamless vinyl and vinyl composite flooring.

(57) "Floor Coating" means an opaque coating that is labeled and designed for application to flooring, including but not limited to, decks, porches, steps, and other horizontal surfaces which may be subject to foot traffic.

~~(50)~~(58) "Floor Polish or Wax" means a wax, polish, or any other product designed to polish, protect, or enhance floor surfaces by leaving a protective coating that is designed to be periodically replenished. "Floor Polish or Wax" does not include "spray buff products", products designed solely for the purpose of cleaning floors, floor finish strippers, products designed for unfinished wood floors, and coatings subject to architectural coatings regulations.

~~(51)~~(59) "Floor Seam Sealer" means any product designed and labeled exclusively for bonding, fusing, or sealing (coating) seams between adjoining rolls of installed flexible sheet flooring.

~~(52)~~(60) "Floor Wax Stripper" means a product designed to remove natural or synthetic floor polishes or waxes through breakdown of the polish or wax polymers, or by dissolving or emulsifying the polish or wax. "Floor Wax Stripper" does not include aerosol floor wax strippers or products designed to remove floor wax solely through abrasion.

~~(53)~~(61) "Flying Bug Insecticide" means any insecticide product that is designed for use against flying insects or other flying arthropods, including but not limited to flies, mosquitoes, moths, or gnats. "Flying Bug Insecticide" does not include "wasp and hornet insecticide", products that are designed to be used exclusively on humans or animals, or any moth-proofing product. For the purposes of this definition only, "moth-proofing product" means a product whose label, packaging, or accompanying literature indicates that the product is designed to protect fabrics from damage by moths, but does not indicate that the product is suitable for use against flying insects or other flying arthropods.

(62) "Footwear or Leather Care Product" means any product designed or labeled to be applied to footwear or to other leather articles/components, to maintain, enhance, clean, protect, or modify the appearance, durability, fit, or flexibility of the footwear or leather article/component. Footwear includes both leather and non-leather foot apparel. "Footwear or Leather Care Product" does not include "Fabric Protectant," "General Purpose Adhesive," "Contact Adhesive," "Vinyl/Fabric/Leather/Polycarbonate Coating," as defined in section 94521(a), "Rubber and Vinyl Protectant," "Fabric Refresher," products solely for deodorizing, or sealant products with adhesive properties used to create external protective layers greater than 2 millimeters thick.

~~(54)~~(63) "Fragrance" means a substance or complex mixture of aroma chemicals, natural essential oils, and other functional components with a combined vapor pressure not in excess of 2 mm of Hg at 20°C, the sole purpose of which is to impart an odor or scent, or to counteract a malodor.

~~(55)~~(64) "Furniture Maintenance Product" means a wax, polish, conditioner, or any other product designed for the purpose of polishing, protecting or enhancing finished wood surfaces other than floors. "Furniture Maintenance Product" does not include "Dusting Aids," "Wood Cleaners," and products designed solely for the purpose of cleaning, and products designed to leave a permanent finish such as stains, sanding sealers and lacquers.

~~(56)~~(65) "Furniture Coating" means any paint designed for application to room furnishings including, but not limited to, cabinets (kitchen, bath and vanity), tables, chairs, beds, and sofas.

~~(57)~~(66) "Gel" means a colloid in which the disperse phase has combined with the continuous phase to produce a semisolid material, such as jelly.

~~(58)~~(67) "General Purpose Adhesive" means any non-aerosol adhesive designed for use on a variety of substrates. "General Purpose Adhesive" does not include (A) contact adhesives, (B) construction, panel, and floor covering adhesives, (C) adhesives designed exclusively for application on one specific category of substrates (i.e., substrates that are composed of similar materials, such as different types of metals, paper products, ceramics, plastics, rubbers, or vinyls),

or (D) adhesives designed exclusively for use on one specific category of articles (i.e., articles that may be composed of different materials but perform a specific function, such as gaskets, automotive trim, weather-stripping, or carpets).

~~(59)~~(68) "General Purpose Cleaner" means a product designed for general all-purpose cleaning, in contrast to cleaning products designed to clean specific substrates in certain situations. "General Purpose Cleaner" includes products designed for general floor cleaning, kitchen or countertop cleaning, and cleaners designed to be used on a variety of hard surfaces.

~~(60)~~(69) "General Purpose Degreaser" means any product ~~designed~~ labeled to remove or dissolve grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive or miscellaneous metallic parts. "General Purpose Degreaser" does not include "Engine Degreaser," "General Purpose Cleaner," "Adhesive Remover," "Electronic Cleaner," "Electrical Cleaner," "Energized Electrical Cleaner," "Metal Polish/Cleanser", products used exclusively in "solvent cleaning tanks or related equipment," or products that are (A) sold exclusively to establishments which manufacture or construct goods or commodities; and (B) labeled "not for retail sale". "Solvent cleaning tanks or related equipment" includes, but is not limited to, cold cleaners, vapor degreasers, conveyORIZED degreasers, film cleaning machines, or products designed to clean miscellaneous metallic parts by immersion in a container.

~~(64)~~(70) "General-use Hand or Body Cleaner or Soap" means a cleaner or soap designed to be used routinely on the skin to clean or remove typical or common dirt and soils. "General-use Hand or Body Cleaner or Soap" includes, but is not limited to, hand or body washes, dual-purpose shampoo-body cleaners, shower or bath gels, and moisturizing cleaners or soaps. "General-use Hand or Body Cleaner or Soap" does not include prescription drug products, "Antimicrobial Hand or Body Cleaner or Soap", "Astringent/Toner", "Facial Cleaner or Soap", "Hand Dishwashing Detergent" (including antimicrobial), "Heavy-duty Hand Cleaner or Soap", "Medicated Astringent/Medicated Toner", or "Rubbing Alcohol."

~~(62)~~(71) "Glass Cleaner" means a cleaning product designed primarily for cleaning surfaces made of glass. Glass cleaner does not include products designed solely for the purpose of cleaning optical materials used in eyeglasses, photographic equipment, scientific equipment and photocopying machines.

(72) "Graffiti Remover" means a product labeled to remove spray paint, ink, marker, crayon, lipstick, nail polish, or shoe polish, from a variety of non-cloth or non-fabric substrates. "Graffiti Remover" does not include "Paint Remover or Stripper," "Nail Polish Remover," or "Spot Remover." Products labeled for dual use as both a paint stripper and graffiti remover are considered "Graffiti Removers."

~~(63)~~(73) "Hair Mousse" means a hairstyling foam designed to facilitate styling of a coiffure and provide limited holding power.

~~(64)~~(74) "Hair Shine" means any product designed for the primary purpose of creating a shine when applied to the hair. "Hair Shine" includes, but is not limited to, dual-use products designed primarily to impart a sheen to the hair. "Hair Shine" does not include "~~Hair Spray~~Hairspray", "Hair Mousse", "Hair Styling Product," "~~Hair Styling Gel~~" or ~~spray-gel~~, "Hair Styling Product", or products whose primary purpose is to condition or hold the hair.

~~(65)~~(75) "Hair Styling Gel" means a consumer product manufactured before December 31, 2006, that is a high viscosity, often gelatinous, product that contains a resin and is designed for the application to hair to aid in styling and sculpting of the hair coiffure.

~~(66)~~(76) "~~Hairspray~~ Hair Spray" means:

(A) for products manufactured before December 31, 2006: a consumer product designed primarily for the purpose of dispensing droplets of a resin on and into a hair coiffure which will impart sufficient rigidity to the coiffure to establish or retain the style for a period of time, and

(B) for products manufactured on or after December 31, 2006: a consumer product that is applied to styled hair, and is designed or labeled to provide sufficient rigidity, to hold, retain and/or (finish) the style of the hair for a period of time. "Hair Spray" includes aerosol hair sprays, pump hair sprays, spray waxes; color, glitter, or sparkle hairsprays that make finishing claims; and products that are both a styling and finishing product. "Hair Spray" does not include spray products that are intended to aid in styling but does not provide finishing of a hairstyle.

For the purposes of this subchapter, "finish" or "finishing" means the maintaining and/or holding of previously styled hair for a period of time.

For the purposes of this subchapter, "styling" means the forming, sculpting, or manipulating the hair to temporarily alter the hair's shape.

(77) "Hair Styling Product" means a consumer product manufactured on or after December 31, 2006, that is designed or labeled for the application to wet, damp or dry hair to aid in defining, shaping, lifting, styling and/or sculpting of the hair. "Hair Styling Product" includes, but is not limited to hair balm, clay, cream, creme, curl straightener, gel, liquid, lotion, paste, pomade, putty, root lifter, serum, spray gel, stick, temporary hair straightener, wax, spray products that aid in styling but do not provide finishing of a hairstyle, and leave-in volumizers, detanglers and/or conditioners that make styling claims. "Hair Styling Product"

does not include "Hair Mousse", "Hair Shine", "Hair Spray", or shampoos and/or conditioners that are rinsed from the hair prior to styling.

For the purposes of this subchapter, "finish" or "finishing" means the maintaining and/or holding of previously styled hair for a period of time.

For the purposes of this subchapter, "styling" means the forming, sculpting, or manipulating the hair to temporarily alter the hair's shape.

~~(67)~~(78) "Heavy-Duty Hand Cleaner or Soap" means a product designed to clean or remove difficult dirt and soils such as oil, grease, grime, tar, shellac, putty, printer's ink, paint, graphite, cement, carbon, asphalt, or adhesives from the hand with or without the use of water. "Heavy-duty Hand Cleaner or Soap" does not include prescription drug products, "Antimicrobial Hand or Body Cleaner or Soap", "Astringent/Toner", "Facial Cleaner or Soap", "General-use Hand or Body Cleaner or Soap", "Medicated Astringent/Medicated Toner" or "Rubbing Alcohol."

~~(68)~~(79) "Herbicide" means a pesticide product designed to kill or retard a plant's growth, but excludes products that are: (A) for agricultural use, or (B) restricted materials that require a permit for use and possession.

~~(69)~~(80) "Household Product" means any consumer product that is primarily designed to be used inside or outside of living quarters or residences that are occupied or intended for occupation by individuals, including the immediate surroundings.

~~(70)~~(81) "Insect Repellent" means a pesticide product that is designed to be applied on human skin, hair or attire worn on humans in order to prevent contact with or repel biting insects or arthropods.

~~(74)~~(82) "Insecticide" means a pesticide product that is designed for use against insects or other arthropods, but excluding products that are: (A) for agricultural use, or (B) for a use which requires a structural pest control license under Chapter 14 (commencing with Section 8500) of the Business and Professions Code, or (C) restricted materials that require a permit for use and possession.

~~(72)~~(83) "Insecticide Fogger" means any insecticide product designed to release all or most of its content, as a fog or mist, into indoor areas during a single application.

~~(73)~~(84) "Institutional Product" or "Industrial and Institutional (I&I) Product" means a consumer product that is designed for use in the maintenance or operation of an establishment that: (A) manufactures, transports, or sells goods or commodities, or provides services for profit; or (B) is engaged in the nonprofit promotion of a particular public, educational, or charitable cause. "Establishments" include, but are not limited to, government agencies, factories, schools, hospitals, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts

centers, health clubs, theaters, or transportation companies. "Institutional Product" does not include household products and products that are incorporated into or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment.

~~(74)~~(85) "Label" means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product or consumer product package, for purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.

~~(75)~~(86) "Laundry Prewash" means a product that is designed for application to a fabric prior to laundering and that supplements and contributes to the effectiveness of laundry detergents and/or provides specialized performance.

~~(76)~~(87) "Laundry Starch Product" means a product that is designed for application to a fabric, either during or after laundering, to impart and prolong a crisp, fresh look and may also act to help ease ironing of the fabric. "Laundry Starch Product" includes, but is not limited to, fabric finish, sizing, and starch.

~~(77)~~(88) "Lawn and Garden Insecticide" means an insecticide product designed primarily to be used in household lawn and garden areas to protect plants from insects or other arthropods.

~~(78)~~(89) "Liquid" means a substance or mixture of substances which is capable of a visually detectable flow as determined under ASTM D-4359-90. "Liquid" does not include powders or other materials that are composed entirely of solid particles.

~~(79)~~(90) "Lubricant" means a product designed to reduce friction, heat, noise, or wear between moving parts, or to loosen rusted or immovable parts or mechanisms. "Lubricant" does not include automotive power steering fluids; products for use inside power generating motors, engines, and turbines, and their associated power-transfer gearboxes; two cycle oils or other products designed to be added to fuels; products for use on the human body or animals or products that are (1) sold exclusively to establishments which manufacture or construct goods or commodities, and (2) labeled "not for retail sale".

~~(80)~~(91) "LVP-VOC" means a chemical "compound" or "mixture" that contains at least one carbon atom and meets one of the following:

- (A) has a vapor pressure less than 0.1 mm Hg at 20°C, as determined by ARB Method 310; or
- (B) is a chemical "compound" with more than 12 carbon atoms, or a chemical "mixture" comprised solely of "compounds" with more than 12 carbon atoms

as verified by formulation data, and the vapor pressure and boiling point are is unknown; or

- (C) is a chemical "compound" with a boiling point greater than 216°C, as determined by ARB Method 310; or
- (D) is the weight percent of a chemical "mixture" that boils above 216°C, as determined by ARB Method 310.

For the purposes of the definition of LVP-VOC, chemical "compound" means a molecule of definite chemical formula and isomeric structure, and chemical "mixture" means a substrate comprised of two or more chemical "compounds".

~~(81)~~(92)"Manufacturer" means any person who imports, manufactures, assembles, produces, packages, repackages, or relabels a consumer product.

~~(82)~~(93)"Medicated Astringent/Medicated Toner" means any product regulated as a drug by the Food and Drug Administration (FDA) which is applied to the skin for the purpose of cleaning or tightening pores. "Medicated Astringent/Medicated Toner" includes, but is not limited to, clarifiers and substrate-impregnated products. "Medicated Astringent/Medicated Toner" does not include hand, face, or body cleaner or soap products, "Personal Fragrance Products", "Astringent/Toner," cold cream, lotion, antiperspirants, or products that must be purchased with a doctor's prescription.

~~(83)~~(94)"Metal Polish/Cleanser" means any product designed primarily to improve the appearance of finished metal, metallic, or metallized surfaces by physical or chemical action. To "improve the appearance" means to remove or reduce stains, impurities, or oxidation from surfaces or to make surfaces smooth and shiny. "Metal Polish/Cleanser" includes, but is not limited to, metal polishes used on brass, silver, chrome, copper, stainless steel and other ornamental metals. "Metal Polish/Cleanser" does not include "Automotive Wax, Polish, Sealant or Glaze", wheel cleaner, "Paint Remover or Stripper", products designed and labeled exclusively for automotive and marine detailing, or products designed for use in degreasing tanks.

~~(84)~~(95)"Mist spray adhesive" means any aerosol adhesive which is not a special purpose spray adhesive and which delivers a particle or mist spray, resulting in the formation of fine, discrete particles that yield a generally uniform and smooth application of adhesive to the substrate.

~~(85)~~(96)"Multi-purpose Dry Lubricant" means any lubricant which is: (A) designed and labeled to provide lubricity by depositing a thin film of graphite, molybdenum disulfide ("moly"), or polytetrafluoroethylene or closely related fluoropolymer ("teflon") on surfaces, and (B) designed for general purpose lubrication, or for use in a wide variety of applications.

~~(86)~~(97) "Multi-purpose Lubricant" means any lubricant designed for general purpose lubrication, or for use in a wide variety of applications. "Multi-purpose Lubricant" does not include "Multi-purpose Dry Lubricants", "Penetrants", or "Silicone-based Multi-purpose Lubricants".

~~(87)~~(98) "Multi-purpose Solvent" means any organic liquid designed to be used for a variety of purposes, including cleaning or degreasing of a variety of substrates, or thinning, dispersing or dissolving other organic materials. "Multi-purpose Solvent" includes solvents used in institutional facilities, except for laboratory reagents used in analytical, educational, research, scientific or other laboratories. "Multi-purpose Solvent" does not include solvents used in cold cleaners, vapor degreasers, conveyORIZED degreasers or film cleaning machines, or solvents that are incorporated into, or used exclusively in the manufacture or construction of, the goods or commodities at the site of the establishment.

~~(88)~~(99) "Nail Polish" means any clear or colored coating designed for application to the fingernails or toenails and including but not limited to, lacquers, enamels, acrylics, base coats and top coats.

~~(89)~~(100) "Nail Polish Remover" means a product designed to remove nail polish and coatings from fingernails or toenails.

~~(90)~~(101) "Non-Carbon Containing Compound" means any compound which does not contain any carbon atoms.

~~(91)~~(102) "Nonresilient Flooring" means flooring of a mineral content which is not flexible. "Nonresilient Flooring" includes terrazzo, marble, slate, granite, brick, stone, ceramic tile and concrete.

~~(92)~~(103) "Non-Selective Terrestrial Herbicide" means a terrestrial herbicide product that is toxic to plants without regard to species.

~~(93)~~(104) "Oven Cleaner" means any cleaning product designed to clean and to remove dried food deposits from oven walls.

~~(94)~~(105) "Paint" means any pigmented liquid, liquefiable, or mastic composition designed for application to a substrate in a thin layer which is converted to an opaque solid film after application and is used for protection, decoration or identification, or to serve some functional purpose such as the filling or concealing of surface irregularities or the modification of light and heat radiation characteristics.

~~(95)~~(106) "Paint Remover or Stripper" means any product designed to strip or remove paints or other related coatings, by chemical action, from a substrate without markedly affecting the substrate. "Paint Remover or Stripper" does not include "Multi-purpose Solvents," paint brush cleaners, products designed and labeled

exclusively to remove as "Graffiti Removers," and hand cleaner products that claim to remove paints and other related coatings from skin.

(107) "Paint Thinner" means any volatile liquid used for reducing the viscosity of coating compositions or components.

~~(96)~~**(108)** "Penetrant" means a lubricant designed and labeled primarily to loosen metal parts that have bonded together due to rusting, oxidation, or other causes. "Penetrant" does not include "Multi-purpose Lubricants" that claim to have penetrating qualities, but are not labeled primarily to loosen bonded parts.

~~(97)~~**(109)** "Person" shall have the same meaning as defined in Health and Safety Code Section 39047.

~~(98)~~**(110)** "Personal Fragrance Product" means any product which is applied to the human body or clothing for the primary purpose of adding a scent or masking a malodor, including cologne, perfume, aftershave, and toilet water. "Personal Fragrance Product" does not include: (A) Deodorant, as defined in section 94510(d), products exclusively for human axillae; (B) medicated products designed primarily to alleviate fungal or bacterial growth on feet or other areas of the body; (C) mouthwashes, breath fresheners and deodorizers; (D) lotions, moisturizers, powders or other skin care products used primarily to alleviate skin conditions such as dryness and irritations; (E) products designed exclusively for use on human genitalia; (F) soaps, shampoos, and products primarily used to clean the human body; and (G) fragrance products designed to be used exclusively on non-human animals.

~~(99)~~**(111)** "Pesticide" means and includes any substance or mixture of substances labeled, designed, or intended for use in preventing, destroying, repelling or mitigating any pest, or any substance or mixture of substances labeled, designed, or intended for use as a defoliant, desiccant, or plant regulator, provided that the term "pesticide" will not include any substance, mixture of substances, or device which the United States Environmental Protection Agency does not consider to be a pesticide.

(112) "Pressurized Gas Duster" means a pressurized product labeled to remove dust from a surface solely by means of mass air or gas flow, including surfaces such as photographs, photographic film negatives, computer keyboards, and other types of surfaces that cannot be cleaned with solvents. "Pressurized Gas Duster" does not include "Dusting Aid."

~~(100)~~**(113)** "Principal Display Panel or Panels" means that part, or those parts of a label that are so designed as to most likely be displayed, presented, shown or examined under normal and customary conditions of display or purchase. Whenever a principal display panel appears more than once, all requirements

pertaining to the "principal display panel" shall pertain to all such "principal display panels".

~~(101)~~(114) "Product Brand Name" means the name of the product exactly as it appears on the principal display panel of the product.

~~(102)~~(115) "Product Category" means the applicable category which best describes the product as listed in this Section 94508.

~~(103)~~(116) "Product Form", for the purpose of complying with Section 94513 only, means the applicable form which most accurately describes the product's dispensing form as follows:

A = Aerosol Product
S = Solid
P = Pump Spray
L = Liquid
~~G = Gel~~
SS = Semisolid
O = Other

~~(104)~~(117) "Propellant" means a liquefied or compressed gas that is used in whole or in part, such as a cosolvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container.

~~(105)~~(118) "Pump Spray" means a packaging system in which the product ingredients within the container are not under pressure and in which the product is expelled only while a pumping action is applied to a button, trigger or other actuator.

~~(106)~~(119) "Responsible Party" means the company, firm or establishment which is listed on the product's label. If the label lists two companies, firms or establishments, the responsible party is the party which the product was "manufactured for" or "distributed by", as noted on the label.

~~(107)~~(120) "Restricted Materials" means pesticides established as restricted materials under Title 3, California Code of Regulations, section 6400.

~~(108)~~(121) "Retailer" means any person who sells, supplies, or offers consumer products for sale directly to consumers.

~~(109)~~(122) "Retail Outlet" means any establishment at which consumer products are sold, supplied, or offered for sale directly to consumers.

~~(110)~~(123) "Rubber and Vinyl Protectant" means any product designed to protect, preserve or renew vinyl, rubber, and plastic on vehicles, tires, luggage, furniture, and household products such as vinyl covers, clothing, and accessories. "Rubber and Vinyl Protectant" does not include products primarily designed to

clean the wheel rim, such as aluminum or magnesium wheel cleaners, and tire cleaners that do not leave an appearance-enhancing or protective substance on the tire.

~~(411)~~(124) "Rubbing Alcohol" means any product containing isopropyl alcohol (also called isopropanol) or denatured ethanol and labeled for topical use, usually to decrease germs in minor cuts and scrapes, to relieve minor muscle aches, as a rubefacient, and for massage.

~~(412)~~(125) "Sealant and Caulking Compound" means any product with adhesive properties that is designed to fill, seal, waterproof, or weatherproof gaps or joints between two surfaces. "Sealant and Caulking Compound" does not include roof cements and roof sealants; insulating foams; removable caulking compounds; clear/paintable/water resistant caulking compounds; floor seam sealers; products designed exclusively for automotive uses; or sealers that are applied as continuous coatings. "Sealant and Caulking Compound" also does not include units of product, less packaging, which weigh more than one pound and consist of more than 16 fluid ounces. For the purposes of this definition only, "removable caulking compounds" means a compound which temporarily seals windows or doors for three to six month time intervals, and "clear/paintable/water resistant caulking compounds" means a compound which contains no appreciable level of opaque fillers or pigments; transmits most or all visible light through the caulk when cured; is paintable; and is immediately resistant to precipitation upon application.

~~(413)~~(126) "Semisolid" means a product that, at room temperature, will not pour, but will spread or deform easily, including but not limited to gels, pastes, and greases.

~~(414)~~(127) "Shaving Cream" means an aerosol product which dispenses a foam lather intended to be used with a blade or cartridge razor, or other wet-shaving system, in the removal of facial or other bodily hair. "Shaving Cream" does not include "Shaving Gel."

(128) "Shaving Gel" means an aerosol product which dispenses a post-foaming semi-solid designed to be used with a blade, cartridge razor, or other shaving system in the removal of facial or other bodily hair. "Shaving Gel" does not include "Shaving Cream."

~~(415)~~(129) "Silicone-based Multi-purpose Lubricant" means any lubricant which is: (A) designed and labeled to provide lubricity primarily through the use of silicone compounds including, but not limited to, polydimethylsiloxane, and (B) designed and labeled for general purpose lubrication, or for use in a wide variety of applications. "Silicone-based Multi-purpose Lubricant" does not include products designed and labeled exclusively to release manufactured products from molds.

~~(116)~~(130) "Single Phase Aerosol Air Freshener" means an aerosol air freshener with the liquid contents in a single homogeneous phase and which does not require that the product container be shaken before use.

~~(117)~~(131) "Solid" means a substance or mixture of substances which, either whole or subdivided (such as the particles comprising a powder), is not capable of visually detectable flow as determined under ASTM D-4359-90.

~~(118)~~(132) "Spot Remover" means any product designed ~~designed~~ labeled to clean localized areas, or remove localized spots or stains on cloth or fabric such as drapes, carpets, upholstery, and clothing, that does not require subsequent laundering to achieve stain removal. "Spot Remover" does not include "Dry Cleaning Fluid", "Laundry Prewash", "Carpet and Upholstery Cleaner", or "Multi-purpose Solvent".

~~(119)~~(133) "Spray Buff Product" means a product designed to restore a worn floor finish in conjunction with a floor buffing machine and special pad.

~~(120)~~(134) "Special Purpose Spray Adhesive" means an aerosol adhesive that meets any of the following definitions:

(A) "Mounting adhesive" means an aerosol adhesive designed to permanently mount photographs, artwork, and any other drawn or printed media to a backing (paper, board, cloth, etc.) without causing discoloration to the artwork.

(B) "Flexible vinyl adhesive" means an aerosol adhesive designed to bond flexible vinyl to substrates. Flexible vinyl means a nonrigid polyvinyl chloride plastic with at least five percent, by weight, of plasticizer content. A plasticizer is a material, such as a high boiling point organic solvent, that is incorporated into a vinyl to increase its flexibility, workability, or distensibility, and may be determined using ASTM Method E260-91 or from product formulation data.

(C) "Polystyrene Foam Adhesive" means an aerosol adhesive designed to bond polystyrene foam (e.g. Styrofoam®, expanded polystyrene foam, etc.) to substrates.

(D) "Automobile Headliner Adhesive" means an aerosol adhesive designed to bond together layers in motor vehicle headliners.

(E) "Polyolefin Adhesive" means an aerosol adhesive designed to bond polyolefins (e.g. polyethylene, polypropylene, etc.) to substrates.

(F) "Laminate Repair/Edgebanding Adhesive" means an aerosol adhesive designed for:

- (1) the touch-up or repair of items laminated with high pressure laminates (e.g. lifted edges, delaminations, etc.), or for
- (2) the touch-up, repair, or attachment of edgebanding materials, including, but not limited to, other laminates, synthetic marble, veneers, wood moulding, and decorative metals.

For the purposes of this definition "high pressure laminate" means sheet materials which consist of paper, fabric, or other core material that have been laminated at temperatures exceeding 265 degrees F, and at pressures between 1,000 and 1,400 psi.

(G) "Automotive Engine Compartment Adhesive" means an aerosol adhesive designed for use in motor vehicle under-the-hood applications which require oil and plasticizer resistance, as well as high shear strength, at temperatures of 200-275° F.

~~(121)~~(135) "Table B Compound" means any carbon-containing compound listed as an exception to the definition of VOC in Section 94508.

~~(122)~~(136) "Terrestrial" means to live on or grow from land.

~~(123)~~(137) "Tire Sealant and Inflator" means any pressurized product that is designed to temporarily inflate and seal a leaking tire.

(138) "Toilet/Urinal Care Product" means any product designed or labeled to clean and/or to deodorize toilet bowls, toilet tanks, or urinals. Toilet bowls, toilet tanks, or urinals includes, but is not limited to, toilets or urinals connected to permanent plumbing in buildings and other structures, portable toilets or urinals placed at temporary or remote locations, and toilet or urinals in vehicles such as buses, recreational motor homes, boats, ships, and aircraft. "Toilet/Urinal Care Product" does not include "Bathroom and Tile Cleaner" or "General Purpose Cleaner."

~~(124)~~(139) "Type A Propellant" means a compressed gas such as CO₂, N₂, N₂O, or compressed air which is used as a propellant, and is either incorporated with the product or contained in a separate chamber within the product's packaging.

~~(125)~~(140) "Type B Propellant" means any halocarbon which is used as a propellant including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs).

~~(126)~~(141) "Type C Propellant" means any propellant which is not a Type A or Type B propellant, including propane, isobutane, n-butane, and dimethyl ether (also known as dimethyl oxide).

~~(127)~~(142) "Undercoating" means any aerosol product designed to impart a protective, non-paint layer to the undercarriage, trunk interior, and/or firewall of motor

vehicles to prevent the formation of rust or to deaden sound. "Undercoating" includes, but is not limited to, rubberized, mastic, or asphaltic products.

~~(128)~~(143) "Usage Directions" means the text or graphics on the product's principal display panel, label, or accompanying literature which describes to the end user how and in what quantity the product is to be used.

~~(129)~~(144) "Volatile Organic Compound (VOC)" means any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:

- (A) methane,
methylene chloride (dichloromethane),
1,1,1-trichloroethane (methyl chloroform),
trichlorofluoromethane (CFC-11),
dichlorodifluoromethane (CFC-12),
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113),
1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114),
chloropentafluoroethane (CFC-115),
chlorodifluoromethane (HCFC-22),
1,1,1-trifluoro-2,2-dichloroethane (HCFC-123),
1,1-dichloro-1-fluoroethane (HCFC-141b),
1-chloro-1,1-difluoroethane (HCFC-142b),
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124),
trifluoromethane (HFC-23),
1,1,2,2-tetrafluoroethane (HFC-134),
1,1,1,2-tetrafluoroethane (HFC-134a),
pentafluoroethane (HFC-125),
1,1,1-trifluoroethane (HFC-143a),
1,1-difluoroethane (HFC-152a),
cyclic, branched, or linear completely methylated siloxanes,
the following classes of perfluorocarbons:
1. cyclic, branched, or linear, completely fluorinated alkanes;
 2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
 3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
 4. sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, and
- (B) the following low-reactive organic compounds which have been exempted by the U.S. EPA:
acetone,
ethane,
methyl acetate,

parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene),
perchloroethylene (tetrachloroethylene).

~~(130)~~(145) "VOC Content" means the total weight of VOC in a product expressed as a percentage of the product weight (exclusive of the container or packaging), as determined pursuant to sections 94515(a) and (b).

~~(131)~~(146) "Wasp and Hornet Insecticide" means any insecticide product that is designed for use against wasps, hornets, yellow jackets or bees by allowing the user to spray from a distance a directed stream or burst at the intended insects, or their hiding place.

~~(132)~~(147) "Waterproofer" means a product designed and labeled exclusively to repel water from fabric or leather substrates. "Waterproofer" does not include "Fabric Protectants".

~~(133)~~(148) "Wax" means a material or synthetic thermoplastic substance generally of high molecular weight hydrocarbons or high molecular weight esters of fatty acids or alcohols, except glycerol and high polymers (plastics). "Wax" includes, but is not limited to, substances derived from the secretions of plants and animals such as caruba wax and beeswax, substances of a mineral origin such as ozocerite and paraffin, and synthetic polymers such as polyethylene.

~~(134)~~(149) "Web Spray Adhesive" means any aerosol adhesive which is not a mist spray adhesive or special purpose spray adhesive.

(150) "Wood Cleaner" means a product labeled to clean wooden materials including but not limited to decking, fences, flooring, logs, cabinetry, and furniture. "Wood Cleaner" does not include "Dusting Aid," "General Purpose Cleaner," "Furniture Maintenance Product," "Floor Wax Stripper," or products designed and labeled exclusively to preserve or color wood.

~~(135)~~(151) "Wood Floor Wax" means wax-based products for use solely on wood floors.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code.
Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94509. Standards for Consumer Products

- (a) Except as provided in Sections 94510 (Exemptions), 94511 (Innovative Products), 94514 (Variances), 94540 through 94555 (Alternative Control Plan), and 94567(a)(1) (Hairspray Credit Program), Title 17, California Code of Regulations, no person shall sell, supply, offer for sale, or manufacture for sale in California any consumer product which, at the time of sale or manufacture, contains volatile organic compounds in excess of the limits specified in the following Table of Standards after the specified effective dates.

**Table of Standards
Percent Volatile Organic Compound by Weight**

Product Category	Effective Date ¹	VOC Standard ²
<u>Adhesive Removers*:</u>		
<u>Floor or Wall Covering Adhesive Remover</u>	<u>12/31/2006</u>	<u>5</u>
<u>Gasket or Thread Locking Adhesive Remover</u>	<u>12/31/2006</u>	<u>50</u>
<u>General Purpose Adhesive Remover</u>	<u>12/31/2006</u>	<u>20</u>
<u>Specialty Adhesive Remover</u>	<u>12/31/2006</u>	<u>70</u>
[*See section 94509(n) for additional requirements that apply to adhesive removers.]		
Adhesives*:		
Aerosol	1/1/95	75
mist spray adhesives	1/1/2002	65
web spray adhesives	1/1/2002	55
special purpose spray adhesives mounting, automotive engine compartment, and flexible vinyl adhesives	1/1/2002	70
polystyrene foam and automobile headliner adhesives	1/1/2002	65
polyolefin and laminate repair/edgebanding adhesives	1/1/2002	60
[See 94509(i)(1), 94512(d), and 94513(d) for additional requirements that apply to aerosol adhesives.]		
construction, panel, and floor covering**	1/1/95 12/31/2002	40 15
contact	1/1/95	80
<u>contact adhesive – general purpose</u>	<u>12/31/2006</u>	<u>55</u>
<u>contact adhesive – special purpose</u>	<u>12/31/2006</u>	<u>80</u>
[See section 94509(n) for additional requirements that apply to contact adhesives.]		

general purpose =====	1/1/95 =====	10 =====
* See section 94510(i) for an exemption that applies to adhesives sold in containers of one fluid ounce or less. ** See section 94509(k)(l) for the effective date of the VOC limit for certain types of "construction, panel, and floor covering adhesives."		
Aerosol Cooking Sprays	1/1/95	18
Air Fresheners*: Double phase aerosols	1/1/93 12/31/2004	30 25
----- single phase aerosols	1/1/93 1/1/96	70 30
----- dual purpose air fresheners/disinfectant aerosols	1/1/94	60
----- liquid/pump sprays	1/1/93	18
----- solids/gels/semisolid =====	1/1/93 =====	3 =====
[*See sections 94510(f) and 94510(g) for an exemptions that applies to certain air fresheners, and 94509(o) for additional requirements that apply to air fresheners.]		
Anti-static Product: Aerosol	12/31/2008	80
----- non-aerosol	12/31/2006	11
Automotive Brake Cleaners	1/1/97 12/31/2002	50 45
Automotive Rubbing or Polishing Compounds	1/1/2005	17
Automotive Wax/Polish/Sealant/Glaze: all other forms	1/1/2005	15
----- hard paste waxes	1/1/2005	45
----- instant detailers	1/1/2001	3

Automotive Windshield Washer Fluids: Type "A" areas*	1/1/93	35
All other areas (all forms) Dilutable and Pre-Mixed ^{1/}	1/1/93 12/31/2002	10 1
^{1/} See section 94508(a)(48)(19), section 94508(a)(49)(20), and section 94509(h)(m) for provisions that apply to Automotive Windshield Washer Fluids.		
=====	=====	=====
* Type "A" areas include only the following: Del Norte, Shasta and Trinity Counties; the Great Basin Valley, Lake Tahoe, Mountain Counties, and Northeast Plateau Air Basins, as defined in Title 17, California Code of Regulations, Sections 60105, 60108, 60111, and 60113.		
Bathroom and Tile Cleaners: aerosols	1/1/94	7
all other forms	1/1/94	5
Bug and Tar Remover	1/1/2002	40
Carburetor or Fuel-injection Air Intake Cleaners **	1/1/95 12/31/2002	75 45
=====	=====	=====
** See section 94509(k)(l) for the effective date of the VOC limit for fuel-injection air intake cleaners.		
Carpet and Upholstery Cleaner: Aerosols	1/1/2001	7
non-aerosols (dilutables)	1/1/2001	.1
non-aerosols (ready-to-use)	1/1/2001	3
Charcoal Lighter Material	See 94509(h)	
Dusting Aids: Aerosol	1/1/95 1/1/97	35 25
all other forms	1/1/95	7
Electrical Cleaner*	12/31/2006	45
[*See section 94509(n) for additional requirements that apply to electrical cleaners.]		
Electronic Cleaner*	12/31/2006	75
[*See section 94509(n) for additional requirements that apply to electronic cleaners.]		

Engine Degreasers (all forms):	1/1/93 1/1/96	75 50
----- aerosols	12/31/2004	35
----- non-aerosols	12/31/2004	5
Fabric Refresher:		
<u>Aerosol</u>	<u>12/31/2006</u>	<u>15</u>
----- non-aerosol	<u>12/31/2006</u>	<u>6</u>
Fabric Protectants	1/1/95 1/1/97	75 60
Floor Polishes/Waxes:		
products for flexible flooring materials	1/1/94	7
----- products for nonresilient flooring	1/1/94	10
----- wood floor wax	1/1/94	90
Floor Wax Stripper:	See Section	
non-aerosols	94509(jk)	
Footware or Leather Care Product*:		
<u>Aerosol</u>	<u>12/31/2006</u>	<u>75</u>
----- <u>solid</u>	<u>12/31/2006</u>	<u>55</u>
----- <u>all other forms</u>	<u>12/31/2006</u>	<u>15</u>
[*See section 94509(n) for additional requirements that apply to footware or leather care products.]		
Furniture Maintenance Products:		
Aerosols	1/1/94 12/31/2004	25 17
----- all other forms (except solid/paste forms)	1/1/94	7
General Purpose Cleaners		
aerosols and non-aerosols:	1/1/94	10
----- non-aerosols	12/31/2004	4
General Purpose Degreasers*:		
Aerosols	1/1/2002	50
----- non-aerosols	12/31/2004	4
[*See section 94509(n) for additional requirements that apply to general purpose degreasers.]		

Glass Cleaners: Aerosols	1/1/93	12
non-aerosols	1/1/93 1/1/96 12/31/2004	8 6 4
<u>Graffiti Remover*:</u> Aerosols	<u>12/31/2006</u>	<u>50</u>
non-aerosols	<u>12/31/2006</u>	<u>30</u>
[*See section 94509(n) for additional requirements that apply to graffiti removers.]		
Hair Mousses	1/1/94 12/31/2002	16 6
Hair Shine	1/1/2005	55
Hairsprays Hair Spray	1/1/93 6/1/99	80 55
Hair Styling Gels	1/1/94	6
Hair Styling Product aerosols and pump sprays	<u>12/31/2006</u>	<u>6</u>
all other forms	<u>12/31/2006</u>	<u>2</u>
Heavy-duty Hand Cleaners or Soap	1/1/2005	8
Insect Repellents: Aerosols	1/1/94	65
Insecticides*: crawling bug (all forms):	1/1/95 1/1/98	40 20
aerosol crawling bug insecticides	12/31/2004	15
flea and tick	1/1/95	25
flying bug (all forms):	1/1/95	35
aerosols	12/31/2003	25
foggers	1/1/95	45
lawn and garden (all forms)	1/1/95	20
non-aerosol lawn and garden insecticides	12/31/2003	3
wasp and hornet	<u>1/1/2005</u>	<u>40</u>

* See sections 94510(g) and 94510(k) for exemptions that apply to certain insecticides.		
Laundry Prewash: aerosols/solids	1/1/94	22
----- all other forms	1/1/94	5
Laundry Starch Products	1/1/95	5
Metal Polish/Cleanser	1/1/2005	30
Multi-purpose Lubricant: (excluding solid or semisolid products)	1/1/2003	50
Nail Polish Removers	1/1/94 1/1/96 12/31/2004	85 75 0
Non-selective Terrestrial Herbicide: non-aerosols	1/1/2002	3
Oven Cleaners: aerosols/pump sprays	1/1/93	8
----- liquids	1/1/93	5
Paint Remover or Stripper	1/1/2005	50
Penetrant	1/1/2003	50
Personal Fragrance Products*: products with 20% or less fragrance	1/1/95 1/1/99	80 75
----- products with more than 20% fragrance	1/1/95 1/1/99	70 65
=====	=====	=====
* See sections 94510(h), 94510(j), and 94510(l) for exemptions that apply to personal fragrance products.		
Rubber and Vinyl Protectant: Aerosols	1/1/2005	10
----- non-aerosols	1/1/2003	3
Sealants and Caulking Compounds	12/31/2002	4
Shaving Creams	1/1/94	5
Shaving Gel	12/31/2006 12/31/2009	7 4
Silicone-based Multi-purpose Lubricant: (excluding solid or semisolid products)	1/1/2005	60
Spot Remover: Aerosols	1/1/2001	25
----- non-aerosols	1/1/2001	8

Tire Sealants and Inflators	12/31/2002	20
<u>Toilet/Urinal Care Product:</u> <u>Aerosol</u>	<u>12/31/2006</u>	<u>10</u>
<u>non-aerosol</u>	<u>12/31/2006</u>	<u>3</u>
<u>[See section 94509 (o) for additional requirements that apply to Toilet/Urinal Care Products]</u>		
Undercoating: Aerosols	1/1/2002	40
Wasp and Hornet Insecticide	1/1/2005	40
<u>Wood Cleaner:</u> <u>Aerosol</u>	<u>12/31/2006</u>	<u>17</u>
<u>non-aerosol</u>	<u>12/31/2006</u>	<u>4</u>

1 See section 94509(d)(e) for the effective date of the VOC standards for products registered under FIFRA, and section 94509(c) and (d) for the "Sell-through" allowed for products manufactured prior to the effective date of standards.

2 See section 94510(c) for an exemption that applies to fragrances in consumer products, and section 94510(d) for an exemption that applies to LVP-VOCs.

(b) *Products that are diluted prior to use*

(1) Except for "Automotive Windshield Washer Fluids (Dilutable)," f For consumer products for which the label, packaging, or accompanying literature specifically states that the product should be diluted with water or non-VOC solvent prior to use, the limits specified in subsection (a) shall apply to the product only after the minimum recommended dilution has taken place. For purposes of this subsection (b), "minimum recommended dilution" shall not include recommendations for incidental use of a concentrated product to deal with limited special applications such as hard-to-remove soils or stains.

(2) For consumer products for which the label, packaging, or accompanying literature states that the product should be diluted with any VOC solvent prior to use, the limits specified in subsection (a) shall apply to the product only after the maximum recommended dilution has taken place.

(3) For "Automotive Windshield Washer Fluids (Dilutable)" for which the label, packaging, or accompanying literature specifically states that the product should be diluted with water or non-VOC solvent prior to use;

(A) the VOC limits specified in section 94509(a) shall apply to the product only after the minimum recommended dilution has taken place;

(B) for the purpose of complying with the VOC limits specified in section

94509(a), different dilution instructions for "Type A areas" and other areas of California may be specified on the product label if the dilution instructions meet the following criteria:

1. The instructions are readily visible, and
2. The instructions can be easily understood by the consumer, and
3. The instructions clearly specify the recommended dilutions to apply in "Type A areas" and in other areas of California, and

If the dilution instructions specified on the product label meet these criteria, the VOC limits specified in section 94509(a) shall apply to the product only after the minimum recommended dilution has taken place for the area in which the product is sold, supplied, or offered for sale.

(c) Sell-through of products.

(1) Sell-through period. Notwithstanding the provisions of Section 94509(a) or 94509(j) ~~(k)~~, a consumer product manufactured prior to each of the effective dates specified for that product in the Table of Standards may be sold, supplied, or offered for sale for up to three years after each of the specified effective dates. This subsection (c) does not apply to:

(A) any consumer product that does not display on the product container or package the date on which the product was manufactured, or a code indicating such date, or

(B) any consumer product on which the manufacturer has used a code indicating the date of manufacture that is different than the code specified in section 94509(b)(2), but an explanation of the code has not been filed with the ARB Executive Officer by the deadlines specified in section 94509(c)(1) or section 94509(c)(2).

(C) Solid Air Fresheners and Toilet/Urinal Care Products that contain para-dichlorobenzene; these products are subject to the one-year sell-through period specified in section 94509(o).

(2) Notification for products sold during the sell-through period. Any person who sells or supplies a consumer product subject to the Table of Standards in section 94509 must notify the purchaser of the product in writing of the date on which the sell-through period for that product will end, provided, however, that this notification must be given only if all of the following conditions are met:

(A) the product is being sold or supplied to a distributor or retailer;

(B) the sell-through period for the product will expire 6 months or less from the date the product is sold or supplied; and

(C) the product does not comply with the lowest VOC standard that apply on the date the sell-through period ends.

~~(d)~~**(e)** *Products registered under FIFRA.* For those consumer products that are registered under the Federal Insecticide, Fungicide, and Rodenticide Act, (FIFRA; 7 U.S.C. Section 136-136y), the effective date of the VOC standards specified in subsection (a) is one year after the date specified in the Table of Standards. For those consumer products that are registered under FIFRA, the three year period provided in subsection (c) shall also begin one year after the date specified in the Table of Standards.

~~(e)~~**(f)** *Products containing ozone-depleting compounds.* For any consumer product for which standards are specified under subsection (a), no person shall sell, supply, offer for sale, or manufacture for sale in California any consumer product which contains any of the following ozone-depleting compounds:

CFC-11 (trichlorofluoromethane), CFC-12 (dichlorodifluoromethane),
CFC-113 (1,1,1-trichloro-2,2,2-trifluoroethane),
CFC-114 (1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane),
CFC-115 (chloropentafluoroethane), halon 1211 (bromochlorodifluoromethane),
halon 1301 (bromotrifluoromethane), halon 2402 (dibromotetrafluoroethane),
HCFC-22 (chlorodifluoromethane),
HCFC-123 (2,2-dichloro-1,1,1-trifluoroethane),
HCFC-124 (2-chloro-1,1,1,2-tetrafluoroethane),
HCFC-141b (1,1-dichloro-1-fluoroethane), HCFC-142b
(1-chloro-1,1-difluoroethane), 1,1,1-trichloroethane, and carbon tetrachloride.

~~(f)~~**(g)** The requirements of section 94509 ~~(e)~~**(f)** shall not apply to any existing product formulation that complies with the Table of Standards or any existing product formulation that is reformulated to meet the Table of Standards, provided the ozone depleting compound content of the reformulated product does not increase.

~~(g)~~**(h)** The requirements of section 94509 ~~(e)~~**(f)** shall not apply to any ozone depleting compounds that may be present as impurities in a consumer product in an amount equal to or less than 0.01% by weight of the product.

~~(h)~~**(i)** *Requirements for charcoal lighter materials.* The following requirements shall apply to all charcoal lighter material products as defined in section 94508(a)~~(26)~~**(27)**:

(1) *Regulatory Standards*

- (A) In all areas of California except the South Coast Air Quality Management District, no person shall sell, supply, or offer for sale after January 1, 1993 any charcoal lighter material product unless at the time of the transaction:
1. the manufacturer or distributor of the charcoal lighter material has been issued a currently effective certification pursuant to subsection ~~(h)~~**(i)**(2).

2. the charcoal lighter material meets the formulation criteria and other conditions specified in the applicable Executive Order issued pursuant to subsection ~~(h)~~(j)(2).
 3. the product usage directions for the charcoal lighter material are the same as those provided to the Executive Officer pursuant to subsection ~~(h)~~ (j)(2)(C).
- (B) In the South Coast Air Quality Management District, the regulatory standards specified in subsection ~~(h)~~(j)(1)(A) shall be applicable upon the effective date of this subsection.

(2) *Certification Requirements*

- (A) No charcoal lighter material formulation shall be certified under this subsection unless the applicant for certification demonstrates to the Executive Officer's satisfaction that the VOC emissions from the ignition of charcoal with the charcoal lighter material are less than or equal to 0.020 pound of VOC per start, using the procedures specified in the South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol, dated February 27, 1991 (the "SCAQMD Rule 1174 Testing Protocol"). The provisions relating to LVP-VOC in sections 94508(a)~~(80)~~(91) and 94510(d) shall not apply to any charcoal lighter material subject to the requirements of sections 94509(a) and ~~(h)~~(j).
- (B) The Executive Officer may approve alternative test procedures which are shown to provide equivalent results to those obtained using the SCAQMD Rule 1174 Testing Protocol.

The application shall be in writing and shall include, at a minimum, the following:

1. the results of testing conducted pursuant to the procedures specified in SCAQMD Rule 1174 Testing Protocol.
2. the exact text and/or graphics that will appear on the charcoal lighter material's principal display panel, label, and any accompanying literature. The provided material shall clearly show the usage directions for the product. These directions shall accurately reflect the quantity of charcoal lighter material per pound of charcoal that was used in the SCAQMD Rule 1174 Testing Protocol for that product, unless:
 - i) the charcoal lighter material is intended to be used in fixed amounts independent of the amount of charcoal used, such as certain paraffin cubes, or

- ii) the charcoal lighter material is already incorporated into the charcoal, such as certain "bag light," "instant light" or "match light" products.
3. For a charcoal lighter material which meets the criteria specified in subsection ~~(h)(j)(2)~~(B)2.i, the usage instructions provided to the Executive Officer shall accurately reflect the quantity of charcoal lighter material used in the SCAQMD Rule 1174 Testing Protocol for that product.
 4. Any physical property data, formulation data, or other information required by the Executive Officer for use in determining when a product modification has occurred and for use in determining compliance with the conditions specified on the Executive Order issued pursuant to section ~~(h)(j)(2)~~.
- (C) Within 30 days of receipt of an application, the Executive Officer shall advise the applicant in writing either that it is complete or that specified additional information is required to make it complete. Within 30 days of receipt of additional information, the Executive Officer shall advise the applicant in writing either that the application is complete, or that specified additional information or testing is still required before it can be deemed complete.
- (D) If the Executive Officer finds that an application meets the requirements of this subsection ~~(h)(j)~~ then he or she shall issue an Executive Order certifying the charcoal lighter material formulation and specifying such conditions as are necessary to insure that the requirements of this subsection ~~(h)(j)~~ are met. The Executive Officer shall act on a complete application within 90 days after the application is deemed complete.

(3) Notice of Modifications

For any charcoal lighter material for which certification has been granted pursuant to subsection ~~(h)(j)(2)~~, the applicant for certification shall notify the Executive Officer in writing within 30 days of: (i) any change in the usage directions, or (ii) any change in product formulation, test results, or any other information submitted pursuant to subsection ~~(h)(j)(2)~~ which may result in VOC emissions greater than 0.020 pound of VOC per start.

(4) Revocation of Certification

If the Executive Officer determines that any certified charcoal lighter material formulation results in VOC emissions from the ignition of charcoal which are greater than 0.020 pound of VOC per start, as determined by the SCAQMD Rule 1174 Testing Protocol and the statistical analysis procedures contained therein, the Executive Officer shall revoke or modify the certification as is necessary to assure that the charcoal lighter material will result in VOC

emissions of less than or equal to 0.020 pound of VOC per start. The Executive Officer shall not revoke or modify the prior certification without first affording the applicant for the certification an opportunity for a hearing in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with section 60040), to determine if the certification should be modified or revoked.

- (5) Notwithstanding any other provision of this subsection 94509(h)(j), charcoal lighter material products manufactured prior to January 1, 1993, may be sold, supplied, or offered for sale until July 1, 1994, in all areas of California except the South Coast Air Quality Management District. Charcoal lighter material products subject to SCAQMD Rule 1174 and sold, supplied, or offered for sale in the South Coast Air Quality Management District shall meet the requirements of section 94509(h)(j) upon the effective date of this subsection, regardless of the date on which the products were manufactured.

(h) (i) *Requirements for aerosol adhesives.*

- (1) As specified in Health and Safety Code section 41712(h)(2), the standards for aerosol adhesives apply to all uses of aerosol adhesives, including consumer, industrial, and commercial uses. Except as otherwise provided in sections 94509(c), 94510, 94511, and 94514, no person shall sell, supply, offer for sale, use or manufacture for sale in California any aerosol adhesive which, at the time of sale, use, or manufacture, contains VOCs in excess of the specified standard.
- (2)(A) In order to qualify as a "Special Purpose Spray Adhesive" the product must meet one or more of the definitions for "Special Purpose Spray Adhesive" specified in section 94508(a)(134)(120), but if the product label indicates that the product is suitable for use on any substrate or application not listed in section ~~94508(a)(120)(Special Purpose Spray Adhesive)~~ one of the definitions for "Special Purpose Spray Adhesive." then the product shall be classified as either a "Web Spray Adhesive" or a "Mist Spray Adhesive."
- (B) If a product meets more than one of the definitions specified in section 94508(a)(134)(120) for "Special Purpose Spray Adhesive", and is not classified as a "Web Spray Adhesive" or "Mist Spray Adhesive" under subsection (2)(A), then the VOC limit for the product shall be the lowest applicable VOC limit specified in section 94509(a).
- (3) Effective 1/1/2002, no person shall sell, supply, offer for sale, or manufacturer for use in California any aerosol adhesive which contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene, except than an aerosol adhesive manufactured before 1/1/2002 may be sold, supplied, or offered for sale until 1/1/2005, so long

as the product container or package displays the date on which the product was manufactured, or a code indicating such date.

- (4) All aerosol adhesives must comply with the labeling requirements specified in section 94512(d), and all manufacturers and responsible parties for aerosol adhesives must comply with the special reporting requirements specified in section 94513(d).
- ~~(j)~~(k) *Requirements for Floor Wax Strippers.* After an effective date of January 1, 2002, no person shall sell, supply, offer for sale, or manufacture for use in California any floor wax stripper unless the following requirements are met:
- (1) The label of each non-aerosol floor wax stripper must specify a dilution ratio for light or medium build-up of polish that results in an as-used VOC concentration of 3 percent by weight or less.
 - (2) If a non-aerosol floor wax stripper is also intended to be used for removal of heavy build-up of polish, the label of that floor wax stripper must specify a dilution ratio for heavy build-up of polish that results in an as-used VOC concentration of 12 percent by weight or less.
 - (3) The terms "light build-up", "medium build-up" or "heavy build-up" are not specifically required, as long as comparable terminology is used.
- ~~(k)~~(l) *Effective dates of the VOC limits for "Carburetor or Fuel-injection Air Intake Cleaners" and "Construction, Panel, and Floor Covering Adhesives."* The definitions for the product categories of "Carburetor or Fuel-injection Air Intake Cleaners" and "Construction, Panel, and Floor Covering Adhesives" were modified as part of the "Mid-term Measures II" rulemaking action that was considered by the Board in October 1999. As a result of these modifications, certain types of consumer products were included in these definitions that had not previously been included. For those consumer products that were included in these definitions for the first time as a result of the "Mid-term Measures II" rulemaking action, the VOC limits (in section 94509(a)) applicable to these newly included products shall not become legally effective until December 31, 2002.
- ~~(j)~~(m) *Automotive Windshield Washer Fluids.* The provisions of subsection 94509(b)(1) shall not apply to "Automotive Windshield Washer Fluid (Pre-Mixed)" as defined in section 94508(a)(21)(19) ~~(Automotive Windshield Washer Fluid)~~.
- (n) *Requirements for Adhesive Removers, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers.*

(1) Except at provided below in sections 94509(n)(2) and (n)(4), effective December 31, 2006, no person shall sell, supply, offer for sale, or manufacture for use in California any Adhesive Remover, Contact Adhesive, Electrical Cleaner, Electronic Cleaner, Footwear or Leather Care Product, General Purpose Degreaser, or Graffiti Remover that contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene.

(2) *Sell through of Products.* Adhesive Removers, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers that contain methylene chloride, perchloroethylene, or trichloroethylene and were manufactured before December 31, 2006, may be sold, supplied, or offered for sale until December 31, 2009, so long as the product container or package displays the date on which the product was manufactured, or a code indicating such date.

(3) *Notification for products sold during the sell-through period.* Any person who sells or supplies a consumer product identified above in section 94509(n)(1) must notify the purchaser of the product in writing that the sell-through period for that product will end on December 31, 2009, provided, however, that this notification must be given only if both of the following conditions are met:

- (A) the product is sold or supplied to a distributor or retailer; and
- (B) the product is sold or supplied on or after June 31, 2009.

(4) *Impurities.* The requirements of section 94509(n)(1) and (n)(3) shall not apply to any Contact Adhesive, Electrical Cleaner, Electronic Cleaner, Footwear or Leather Care Product, General Purpose Degreaser, or Graffiti Remover containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.

(o) *Requirements for Solid Air Fresheners and Toilet/Urinal Care Products.*

(1) Effective December 31, 2006, no person shall sell, supply, offer for sale, or manufacture for use in California any Solid Air Fresheners or Toilet/Urinal Care Products that contain para-dichlorobenzene, except that Solid Air Fresheners and Toilet/Urinal Care Products that contain para-dichlorobenzene and were manufactured before December 31, 2006 may be sold, supplied, or offered for sale until December 31, 2007, so long as the product container or package displays the date on which the product was manufactured, or a code indicating such date.

(2) *Notification for products sold during the sell-through period.* Any person who sells or supplies any Solid Air Freshener or Toilet/Urinal Care Product that contains para-dichlorobenzene must notify the purchaser of the product in writing that the sell-through period for the product will end on December 31, 2007.

provided, however, that this notification must be given only if both of the following conditions are met:

- (A) the product is sold or supplied to a distributor or retailer; and
- (B) the product is sold or supplied on or after June 31, 2007.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39650, 39655, 39656, 39658, 39659, 39666, 40000, and 41712, Health and Safety Code.

94510. Exemptions

- (a) This article shall not apply to any consumer product manufactured in California for shipment and use outside of California.
- (b) The provisions of this article shall not apply to a manufacturer or distributor who sells, supplies, or offers for sale in California a consumer product that does not comply with the VOC standards specified in Section 94509, as long as the manufacturer or distributor can demonstrate both that the consumer product is intended for shipment and use outside of California, and that the manufacturer or distributor has taken reasonable prudent precautions to assure that the consumer product is not distributed to California. This subsection (b) does not apply to consumer products that are sold, supplied, or offered for sale by any person to retail outlets in California.
- (c) The VOC limits specified in Section 94509(a) shall not apply to fragrances up to a combined level of 2 percent by weight contained in any consumer product.
- (d) The VOC limits specified in Section 94509(a) shall not apply to any LVP-VOC.
- (e) The requirements of Section 94512(b) shall not apply to consumer products registered under the Federal Insecticide, Fungicide, and Rodenticide Act, (FIFRA; 7 U.S.C. Section 136/136y).
- (f) The VOC limits specified in Section 94509(a) shall not apply to air fresheners that are comprised entirely of fragrance, less compounds not defined as VOCs under Section 94508 or exempted under Section 94510(d).
- (g) The VOC limits specified in Section 94509(a) shall not apply to ~~air fresheners and~~ insecticides containing at least 98% paradichlorobenzene.
- (h) The VOC limits specified in Section 94509(a) shall not apply to:
 - (1) existing personal fragrance products or personal fragrance products in development on or before April 1, 1992, provided that both (i) the registration data specified in section 94513 is submitted for every such product by the date

specified in section 94513(a), or prior to July 1, 1993, whichever date occurs later, and (ii) such product is sold in California prior to January 1, 1994. For the purposes of this subsection, a product "in development" means:

- (A) a product which a fragrance materials manufacturer is designing at the request of a personal fragrance product manufacturer, or
- (B) a product which is the subject of a written marketing profile or other documentation authorizing the creation and marketing of the product.

(2) Personal fragrance products in development may be registered to qualify for this exemption under hypothetical trade names or pseudonyms, provided that the actual trade name is supplied to the Executive Officer within 30 days of marketing such products, or January 1, 1994, whichever occurs first.

- (i) The VOC limits specified in Section 94509(a) shall not apply to adhesives sold in containers of 1 fluid ounce or less.
- (j) The VOC limits specified in Section 94509(a) shall not apply to any VOC which is a fragrance in a personal fragrance product.
- (k) The VOC limits specified in Section 94509(a) shall not apply to bait station insecticides. For the purpose of this section, bait station insecticides are containers enclosing an insecticidal bait that is not more than 0.5 ounce by weight, where the bait is designed to be ingested by insects and is composed of solid material feeding stimulants with less than 5 percent (%) active ingredients.
- (l) The 1/1/99 VOC limits specified in Section 94509(a) for personal fragrance products shall not apply to such products which have been sold in California prior to 1/1/99.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code.
Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

[No changes are proposed to section 94511. "Innovative Products"]

94512. Administrative Requirements

(a) Most Restrictive Limit.

(1) Products Manufactured Before January 1, 2007. Notwithstanding the definition of "product category" in Section 94508, if anywhere on the principal display panel of any consumer product manufactured before January 1, 2007, any representation is made that the product may be used as, or is suitable for use as a consumer product for which a lower VOC limit is specified in Section 94509(a), then the lowest VOC limit shall apply. This requirement does not apply to general purpose cleaners.

(2) Products Manufactured on or After January 1, 2007. Notwithstanding the definition of "product category" in Section 94508, if anywhere on the container or packaging of any consumer product manufactured on or after January 1, 2007, or on any sticker or label affixed thereto, any representation is made that the product may be used as, or is suitable for use as a consumer product for which a lower VOC limit is specified in Section 94509(a), then the lowest VOC limit shall apply. This requirement does not apply to general purpose cleaners.

(b) Code-Product Dating.

- (1) Each manufacturer of a consumer product subject to Section 94509 shall clearly display on each consumer product container or package, the day, month, and year on which the product was manufactured, or a code indicating such date.
- (2) A manufacturer who uses the following code to indicate the date of manufacture shall not be subject to the requirements of section 94509(c)(1), if the code is represented separately from other codes on the product container so that it is easily recognizable:

YY DDD = year year day day day

Where: "YY" = two digits representing the year in which the product was manufactured, and

"DDD" = three digits representing the day of the year on which the product was manufactured, with "001" representing the first day of the year, "002" representing the second day of the year, and so forth (i.e. the "Julian date")

- (3) This date or code shall be displayed on each consumer product container or package no later than twelve months prior to the effective date of the applicable standard specified in Section 94509. ~~No person shall erase, alter, deface or otherwise remove or make illegible any date or code date from any regulated product container without the express authorization of the manufacturer.~~
- (4) For products manufactured on or after January 1, 2006, the date or code shall be displayed on the product container such that it is readily observable without irreversibly disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.
- (5) The requirements of this ~~provision~~ subsection (b) shall not apply to:
 - (1)-(A) personal fragrance products of 2 milliliters or less, which are offered to consumers free of charge for the purpose of sampling the product; or

- (2) (B) products containing no VOCs (as defined in section 94508), or containing VOCs at 0.10% by weight or less.

(c) Additional Product Dating Requirements

- (1) If a manufacturer uses a code indicating the date of manufacture, for any consumer product subject to section 94509 an explanation of the code must be filed with the Executive Officer of the ARB no later than twelve months prior to the effective date of the applicable standard specified in section 94509. Thereafter, manufacturers using a code must file an explanation of the code with the Executive Officer on an annual basis, beginning in 2006. The explanation of the code must be received by the Executive Officer on or before January 31st of each year, with the first explanation due on or before January 31, 2006.
- (2) If a manufacturer changes any code indicating the date of manufacture for any consumer product subject to subsection (c)(1), an explanation of the modified code must be received by the Executive Officer before any products displaying the modified code are sold, supplied, or offered for sale in California.
- (3) No person shall erase, alter, deface, or otherwise remove or make illegible any date or code indicating the date of manufacture from any regulated product container without the express authorization of the manufacturer.
- (4) Codes indicating the date of manufacture are public information and may not be claimed as confidential.

(d) Additional Labeling Requirements for Aerosol Adhesives, Adhesive Removers, Electronic Cleaner, Electrical Cleaner, Energized Electrical Cleaner, and Contact Adhesives.

- (1) In addition to the requirements specified in subsections (a), (b), and (c), both the manufacturer and responsible party for each aerosol adhesive, adhesive remover, electronic cleaner, electrical cleaner, energized electrical cleaner, and contact adhesive, product subject to this article shall ensure that all products clearly display the following information on each product container which is manufactured on or after the effective date for the category specified in section 94509(a) 4/1/2002:
- (A) The aerosol-adhesive product category as specified in section 94509(a) or an abbreviation of the category shall be displayed;
- (B) 1. The applicable VOC standard for the product that is specified in section 94509(a), except for Energized Electrical Cleaner, expressed as a percentage by weight, shall be displayed unless the product is included in an alternative control plan approved by

the Executive Officer, as provided in Article 4. Section 94540-94555, Title 17, California Code of Regulations, and the product exceeds the applicable VOC standard;

2. If the product is included in an alternative control plan approved by the Executive Officer, and the product exceeds the applicable VOC standard specified in section 94509(a), the product shall be labeled with the term "ACP" or "ACP product";

(C) If the product is classified as a special purpose spray adhesive, the applicable substrate and/or application or an abbreviation of the substrate/application that qualifies the product as special purpose shall be displayed;

(D) If the manufacturer or responsible party uses an abbreviation as allowed by the subsection 94512(d), and explanation of the abbreviation must be filed with the Executive Officer before the abbreviation is used.

(2) The information required in section 94512(d)(1), shall be displayed on the product container such that it is readily observable without removing or disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.

(3) No person shall remove, alter, conceal, or deface the information required in section 94512(d)(1) prior to final sale of the product.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94513. Reporting Requirements

(a) Upon 90 days written notice, the Executive Officer may require any responsible party to report information for any consumer product or products the Executive Officer may specify including, but not limited to, all or part of the following information: specified in the following subsections (a)(1) through (a)(12). If the responsible party does not have or does not provide the information requested by the Executive Officer, the Executive Officer may require the reporting of this information by the person that has the information, including, but not limited to, any formulator, manufacturer, supplier, parent company, private labeler, distributor, or repackager.

(1) the company name, of the responsible party and the party's address, telephone number, and designated contact person;

- (2) any claim of confidentiality made pursuant to Title 17, California Code of Regulations, Section 91011;
- (3) the product brand name for each consumer product ~~subject to registration and upon request by the Executive Officer,~~ the product label;
- (4) the product category to which the consumer product belongs;
- (5) the applicable product form(s) listed separately;
- (6) an identification of each product brand name and form as a "Household Product", "I&I Product", or both;
- (7) separate California sales in pounds per year, to the nearest pound, and the method used to calculate California sales for each product form;
- (8) for ~~registrations information~~ submitted by ~~two~~ multiple companies, an identification of the each company which is submitting relevant data separate from that submitted by the responsible party. All ~~registration information~~ from ~~both~~ all companies shall be submitted by the date specified in Section 94513(a);
- (9) for each product brand name and form, the net percent by weight of the total product, less container and packaging, comprised of the following, rounded to the nearest one-tenth of a percent (0.1%):
 - (A) Total Table B Compounds
 - (B) Total LVP-VOCs that are not fragrances
 - (C) Total All Other Carbon-Containing Compounds that are not fragrances
 - (D) Total All Non-Carbon-Containing Compounds
 - (E) Total Fragrance
 - (F) For products containing greater than two percent by weight fragrance, but excluding "personal fragrance products":
 - (i) the percent of fragrance that are LVP-VOCs, and
 - (ii) the percent of fragrance that are all other carbon-containing compounds
 - (G) For "personal fragrance products", the density of the fragrance
 - (H) Total Paradichlorobenzene
- (10) for each product brand name and form, the identity, including the specific chemical name and associated Chemical Abstract Services (CAS) number, of the following:
 - (A) Each Table B Compound
 - (B) Each LVP-VOC that is not a fragrance
- (11) if applicable, the weight percent comprised of propellant for each product;

- (12) if applicable, an identification of the type of propellant (Type A, Type B, Type C, or a blend of the different types);
- (b) In addition to the requirements of section 94513(a)(10), the responsible party shall report or shall arrange to have reported to the Executive Officer the net percent by weight of each ozone-depleting compound which is (1) listed in section 94509(e) and (2) contained in a product subject to ~~registration~~ reporting under section 94513(a) in any amount greater than 0.1 percent by weight.
- (c) All information submitted by ~~responsible parties~~ any person pursuant to Section 94513 shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, Sections 91000-91022.
- (d) *Special Reporting Requirements for Aerosol Adhesives*

On or before March 31, 2004, all responsible parties for aerosol adhesives shall report to the Executive Officer the following information for products sold or offered for sale in California:

- (1) data regarding product sales and composition for the year 2003, including the information listed in Section 94513(a), and any other information that the Executive Officer may specify; and
- (2) a written update of the research and development efforts undertaken to achieve VOC limits lower than the limits specified in section 94509(a). The written update must include detailed information about the raw materials (solvents, propellants, resins, and polymers) and hardware (valves, actuators, cans) used in product reformulation, the testing protocols used, the results of the testing, and the cost of reformulation efforts.
- (3) On or before December 31, 2003, the Executive Officer shall notify responsible parties in writing that they are to submit aerosol adhesive product and research data by March 31, 2004.
- (e) *Special Reporting Requirements for Consumer Products that Contain Perchloroethylene or Methylene Chloride:*

(1) The requirements of this subsection shall apply to all responsible parties for:

(A) consumer products that are subject to section 94509(a) and contain perchloroethylene or methylene chloride, and

(B) Energized Electrical Cleaners as defined in section 94508(a) (47), that contain perchloroethylene or methylene chloride. For the purposes of this subsection, a product "contains perchloroethylene or methylene chloride" if the product contains 1.0 percent or more by weight (exclusive of the container or packaging) of either perchloroethylene or methylene chloride.

- (2) For each consumer product that contains perchloroethylene or methylene chloride, the responsible party shall report the following information for products sold in California during each calendar year, beginning with the year 2000, and ending with the year 2010.
 - (A) the product brand name and a copy of the product label with legible usage instructions;
 - (B) the product category to which the consumer product belongs;
 - (C) the applicable product form(s) (listed separately);
 - (D) for each product form listed in (C), the total sales in California during the calendar year to the nearest pound (exclusive of the container or packaging), and the method used for calculating the California sales;
 - (E) the weight percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the consumer product;
- (3) The information specified in subsection 94513(e)(2) shall be reported for each calendar year by March 1 of the following year. The first report shall be due on March 1, 2001, for calendar year 2000. A new report is due on March 1 of each year thereafter, until March 1, 2011, when the last report is due.
- (4) Upon request, the Executive Officer shall make the perchloroethylene information submitted pursuant to this subsection available to publicly owned treatment works in California, in accordance with the procedures for handling of confidential information specified in Title 17, California Code of Regulations, sections 91000-91022.
 - (A) On or before July 1, 2002, the Executive Officer shall evaluate the information, along with data on influent and effluent levels of perchloroethylene as reported by publicly-owned treatment works personnel and any other relevant information, to determine if it is likely that publicly-owned treatment works are experiencing increased levels of perchloroethylene, relative to 1996 levels, that can be attributed to consumer products which contain perchloroethylene.
 - (B) If the Executive Officer determines that it is likely that increased perchloroethylene levels at the publicly-owned treatment works are caused by increased levels of perchloroethylene in consumer products subject to this regulation, then the Executive Officer shall, in conjunction with the publicly-owned treatment works and other appropriate parties, implement measures which are feasible, appropriate, and necessary for reducing perchloroethylene levels at the publicly-owned treatment works.

NOTE: Authority cited: Sections 39600, 39601, 41511, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511, and 41712, Health and Safety Code.

[No changes are proposed to section 94514. "Variances"]

94515. Test Methods

- (a)(1) Testing to determine compliance with the requirements of this article, shall be performed using Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products, adopted September 25, 1997 and as last amended on ~~September 3, 1999~~ [Date of Amendment], which is incorporated herein by reference. Alternative methods which are shown to accurately determine the concentration of VOCs in a subject product or its emissions may be used upon approval of the Executive Officer.
- (2) In sections 3.5, 3.6, and 3.7 of Air Resources Board (ARB) Method 310, a process is specified for the "Initial Determination of VOC Content" and the "Final Determination of VOC Content". This process is an integral part of testing procedure set forth in ARB Method 310, and is reproduced below:

Sections 3.5, 3.6, and 3.7 of Air Resources Board Method 310

3.5 Initial Determination of VOC Content. The Executive Officer will determine the VOC content pursuant to sections 3.2 and 3.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.

3.5.1 Using the appropriate formula specified in section 4.0, the Executive Officer will make an initial determination of whether the product meets the applicable VOC standards specified in ARB regulations. If initial results show that the product does not meet the applicable VOC standards, the Executive Officer may perform additional testing to confirm the initial results.

3.5.2 If the results obtained under section 3.5.1 show that the product does not meet the applicable VOC standards, the Executive Officer will request the product manufacturer or responsible party to supply product formulation data. The manufacturer or responsible party shall supply the requested information. Information submitted to the ARB Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in Title 17, California Code of Regulations, sections 91000 to 91022.

- 3.5.3 If the information supplied by the manufacturer or responsible party shows that the product does not meet the applicable VOC standards, then the Executive Officer will take appropriate enforcement action.
- 3.5.4 If the manufacturer or responsible party fails to provide formulation data as specified in section 3.5.2, the initial determination of VOC content under this section 3.5 shall determine if the product is in compliance with the applicable VOC standards. This determination may be used to establish a violation of ARB regulations.
- 3.6 Determination of the LVP-VOC status of compounds and mixtures. This section does not apply to antiperspirant and deodorants or aerosol coating products because there is no LVP-VOC exemption for these products.
- 3.6.1 Formulation data. If the vapor pressure is unknown, the following ASTM methods may be used to determine the LVP-VOC status of compounds and mixtures: ~~ASTM D 86-96 01 (April 10, 1996)~~, ~~ASTM D 850-93 00 (April 15, 1993)~~, ~~ASTM D 1078-97 01 (July 10, 1997)~~, ~~ASTM D 2879-97 (April 10, 1997)~~, as modified in Appendix B to this Method 310, ~~ASTM D 2887-97 01 (April 10, 1997)~~ and ~~ASTM E 1719-7 (March 10, 1997)~~.
- 3.6.2 LVP-VOC status of "compounds" or "mixtures." The Executive Officer will test a sample of the LVP-VOC used in the product formulation to determine the boiling point for a compound or for a mixture. If the boiling point exceeds 216°C, the compound or mixture is an LVP-VOC. If the boiling point is less than 216°C, then the weight percent of the mixture which boils above 216°C is an LVP-VOC. The Executive Officer will use the nearest 5 percent distillation cut that is greater than 16°C as determined under 3.6.1 to determine the percentage of the mixture qualifying as an LVP-VOC.
- 3.6.3 Reference method for identification of LVP-VOC compounds and mixtures. If a product does not qualify as an LVP-VOC under 3.6.2, the Executive Officer will test a sample of the compound or mixture used in a products formulation utilizing one or both of the following: ASTM D 2879-97, as modified in Appendix B to this Method 310, and ASTM E 1719-97, to determine if the compound or mixture meets the requirements of Title 17, CCR, section 94508(7891)(A).
- 3.7 Final Determination of VOC Content. If a product's compliance status is not satisfactorily resolved under sections 3.5 and 3.6, the Executive Officer will conduct further analyses and testing as necessary to verify the formulation data.
- 3.7.1 If the accuracy of the supplied formulation data is verified and the product sample is determined to meet the applicable VOC standards,

then no enforcement action for violation of the VOC standards will be taken.

3.7.2 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply information to explain the discrepancy.

3.7.3 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the supplied formulation data, then the results of Method 310 shall take precedence over the supplied formulation data. The results of Method 310 shall then determine if the product is in compliance with the applicable VOC standards, and may be used to establish a violation of ARB regulations.

(b) VOC content determinations using product formulation and records. Testing to determine compliance with the requirements of this article may also be demonstrated through calculation of the VOC content from records of the amounts of constituents used to make the product pursuant to the following criteria:

- (1) Compliance determinations based on these records may not be used unless the manufacturer of a consumer product keeps accurate records for each day of production of the amount and chemical composition of the individual product constituents. These records must be kept for at least three years.
- (2) For the purposes of this section 94515(b), the VOC content shall be calculated according to the following equation:

$$\text{VOC Content} = \frac{B - C}{A} \times 100$$

where,

A = total net weight of unit (excluding container and packaging)

B = total weight of all VOCs, as defined in Section 94508(a), per unit

C = total weight of VOCs exempted under Section 94510, per unit

- (3) If product records appear to demonstrate compliance with the VOC limits, but these records are contradicted by product testing performed using ARB Method 310, the results of ARB Method 310 shall take precedence over the product records and may be used to establish a violation of the requirements of this article.

- (c) Determination of liquid or solid. Testing to determine whether a product is a liquid or solid shall be performed using ASTM D4359-90 (~~May 25, 1990~~), which is incorporated by reference herein.
- (d) Compliance determinations for charcoal lighter material products. Testing to determine compliance with the certification requirements for charcoal lighter material shall be performed using the procedures specified in the South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (February 28, 1991), which is incorporated by reference herein.
- (e) Testing to determine distillation points of petroleum distillate-based charcoal lighter materials shall be performed using ASTM D86-90 01 (~~Sept. 28, 1990~~), which is incorporated by reference herein.
- (f) Fragrance content determinations for personal fragrance products. Testing to determine the percent by weight of fragrance in personal fragrance products shall be performed according to the Association of Official Analytical Chemists (AOAC) Official Method of Analysis No. 932.11, 1990, "Essential Oil in Flavor Extracts and Toilet Preparations, Babcock Method" (AOAC Official Methods of Analysis, 15th Edition, 1990), which is incorporated by reference herein.
- (g) No person shall create, alter, falsify, or otherwise modify records in such a way that the records do not accurately reflect the constituents used to manufacture a product, the chemical composition of the individual product, and any other test, processes, or records used in connection with product manufacture.

NOTE: Authority cited: Sections 39600, 39601, 39607, 41511, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39607, 40000, 41511, and 41712, Health and Safety Code.

[No changes are proposed to sections 94516. "Severability" and 94517. "Federal Enforceability"]

**PROPOSED AMENDMENTS TO THE
REGULATION FOR REDUCING
VOLATILE ORGANIC COMPOUND
EMISSIONS FROM ANTIPERSPIRANTS AND DEODORANTS**

[Note: Proposed amendments are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions.]

SUBCHAPTER 8.5. CONSUMER PRODUCTS

Article 1. Antiperspirants and Deodorants

[No changes are proposed to section 94500.]

Amend title 17, California Code of Regulations, section 94501 and section 94506 as follows:

94501. Definitions.

For the purpose of this article, the following definitions apply:

- (a) "Aerosol Product" means a pressurized spray system that dispenses antiperspirant or deodorant ingredients.
- (b) "Antiperspirant" means any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to reduce perspiration in the human axilla by at least 20 percent in at least 50 percent of a target population.
- (c) "Colorant" means any substance or mixture of substances, the primary purpose of which is to color or modify the color of something else.
- (d) "Deodorant" means:
 - 1) for products manufactured before January 1, 2006: any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to minimize odor in the human axilla by retarding the growth of bacteria which cause the decomposition of perspiration.
 - 2) for products manufactured on or after January 1, 2006: any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that indicates or depicts on the container or packaging, or on any sticker or label affixed thereto, that the product can be used on or applied to the human axilla to provide a scent and/or minimize odor.

- (e) "Executive Officer" means the Executive Officer of the Air Resources Board, or his or her delegate.
- (f) "Fragrance" means a substance or complex mixture of aroma chemicals, natural essential oils, and other functional components with a combined vapor pressure not in excess of 2 mm of Hg at 20°C, the sole purpose of which is to impart an odor or scent, or to counteract a malodor.
- (g) "High Volatility Organic Compound (HVOC)" means any organic compound that exerts a vapor pressure greater than 80 millimeters of Mercury (mm Hg) when measured at 20°C.
- (h) "Manufacturer" means any person who imports, manufactures, assembles, produces, packages, repackages, or relabels an antiperspirant or deodorant.
- (i) "Medium Volatility Organic Compound (MVOC)" means any organic compound that exerts a vapor pressure greater than 2 mm Hg and less than or equal to 80 mm Hg when measured at 20°C.
- (j) "Non-aerosol Product" means any antiperspirant or deodorant that is not dispensed by a pressurized spray system.
- (k) "Roll-on Product" means any antiperspirant or deodorant that dispenses active ingredients by rolling a wetted ball or wetted cylinder on the affected area.
- (l) "Stick Product" means any antiperspirant or deodorant that contains active ingredients in a solid matrix form, and that dispenses the active ingredients by frictional action on the affected area.
- (m) "Volatile Organic Compound (VOC)" means any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:
- (1) methane,
methylene chloride (dichloromethane),
1,1,1-trichloroethane (methyl chloroform),
trichlorofluoromethane (CFC-11),
dichlorodifluoromethane (CFC-12),
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113),
1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114),
chloropentafluoroethane (CFC-115),
chlorodifluoromethane (HCFC-22),
1,1,1-trifluoro-2,2-dichloroethane (HCFC-123),
1,1-dichloro-1-fluoroethane (HCFC-141b),
1-chloro-1,1-difluoroethane (HCFC-142b),

2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124),
trifluoromethane (HFC-23),
1,1,2,2-tetrafluoroethane (HFC-134),
1,1,1,2-tetrafluoroethane (HFC-134a),
pentafluoroethane (HFC-125),
1,1,1-trifluoroethane (HFC-143a),
1,1-difluoroethane (HFC-152a),
cyclic, branched, or linear completely methylated siloxanes,
the following classes of perfluorocarbons:

- (A) cyclic, branched, or linear, completely fluorinated alkanes;
- (B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
- (C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
- (D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, and

- (2) the following low-reactive organic compounds which have been exempted by the U.S. EPA:

acetone,
ethane,
methyl acetate,
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene).

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code.
Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

[No changes are proposed to sections 94502-94505.]

Amend section 94506 as follows:

94506. Test Methods

- (a)(1) Testing to determine the volatile organic compound of an antiperspirant or deodorant, or to determine compliance with the requirements of this article, shall be performed using Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products, adopted September 25, 1997 and as last amended on ~~September 3, 1999~~ [Date of Amendment], which is incorporated herein by reference. Alternative methods which are shown to accurately determine the concentration of VOCs in a subject product or its emissions may be used upon approval of the Executive Officer.
- (2) In sections 3.5 and 3.7 of Air Resources Board (ARB) Method 310, a process is specified for the "Initial Determination of VOC Content" and the "Final

Determination of VOC Content". This process is an integral part of testing procedure set forth in ARB Method 310, and is reproduced below:

Sections 3.5 and 3.7 of Air Resources Board Method 310

- 3.5 Initial Determination of VOC Content. The Executive Officer will determine the VOC content pursuant to sections 3.2 and 3.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.
 - 3.5.1 Using the appropriate formula specified in section 4.0, the Executive Officer will make an initial determination of whether the product meets the applicable VOC standards specified in ARB regulations. If initial results show that the product does not meet the applicable VOC standards, the Executive Officer may perform additional testing to confirm the initial results.
 - 3.5.2 If the results obtained under section 3.5.1 show that the product does not meet the applicable VOC standards, the Executive Officer will request the product manufacturer or responsible party to supply product formulation data. The manufacturer or responsible party shall supply the requested information. Information submitted to the ARB Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in Title 17, California Code of Regulations, sections 91000 to 91022.
 - 3.5.3 If the information supplied by the manufacturer or responsible party shows that the product does not meet the applicable VOC standards, then the Executive Officer will take appropriate enforcement action.
 - 3.5.4 If the manufacturer or responsible party fails to provide formulation data as specified in section 3.5.2, the initial determination of VOC content under this section 3.5 shall determine if the product is in compliance with the applicable VOC standards. This determination may be used to establish a violation of ARB regulations.
- 3.7 Final Determination of VOC Content. If a product's compliance status is not satisfactorily resolved under sections 3.5 and 3.6, the Executive Officer will conduct further analyses and testing as necessary to verify the formulation data.
 - 3.7.1 If the accuracy of the supplied formulation data is verified and the product sample is determined to meet the applicable VOC

standards, then no enforcement action for violation of the VOC standards will be taken.

3.7.2 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply information to explain the discrepancy.

3.7.3 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the supplied formulation data, then the results of Method 310 shall take precedence over the supplied formulation data. The results of Method 310 shall then determine if the product is in compliance with the applicable VOC standards, and may be used to establish a violation of ARB regulations.

- (b) Testing to determine compliance with the requirements of this article may also be demonstrated through calculation of the volatile organic compound content from records of the amounts of constituents used to make the product. Compliance determination based on these records may not be used unless the manufacturer of a consumer product keeps accurate records for each day of production of the amount and chemical composition of the individual product constituents. These records must be kept for at least three years.
- (c) No person shall create, alter, falsify, or otherwise modify records in such a way that the records do not accurately reflect the constituents used to manufacture a product, the chemical composition of the individual product, and any other tests, processes, or records used in connection with product manufacture.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code.
Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

[No changes are proposed to section 94506.5]

PROPOSED AMENDMENTS TO THE REGULATION FOR REDUCING THE OZONE FORMED FROM AEROSOL COATING PRODUCT EMISSIONS

[Note: Proposed amendments are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions.]

Amend title 17, California Code of Regulations, as follows:

[No changes are proposed to sections 94520- 94525.]

Amend section 94526 as follows:

94526. Test Methods.

Compliance with the requirements of this article shall be determined by using the following test methods, which are incorporated by reference herein. Alternative test methods which are shown to accurately determine the VOC content, ingredient name and weight percent of each ingredient, exempt compound content, metal content, specular gloss, or acid content may also be used after approval in writing by the Executive Officer:

(a) Testing for Products Subject to the VOC Limits Specified in Section 94522(a)(2).

- (1) VOC Content. The VOC content of all aerosol coating products subject to the provisions of this article shall be determined by the procedures set forth in "Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products," adopted September 25, 1997 and as last amended on ~~July 48, 2004~~ [Date of Amendment].
- (2) In sections 3.5 and 3.7 of Air Resources Board (ARB) Method 310, a process is specified for the "Initial Determination of VOC Content" and the "Final Determination of VOC Content". This process is an integral part of testing procedure set forth in ARB Method 310, and is reproduced below:

Sections 3.5 and 3.7 of Air Resources Board Method 310

3.5 Initial Determination of VOC Content. The Executive Officer will determine the VOC content pursuant to section 3.2 and 3.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.

3.5.1 Using the appropriate formula specified in section 4.0, the Executive Officer will make an initial determination of

whether the product meets the applicable VOC standards specified in ARB regulations. If initial results show that the products does not meet the applicable VOC standards, the Executive Officer may perform additional testing to confirm the initial results.

3.5.2 If the results obtained under section 3.5.1 show that the products does not meet the applicable VOC standards, the Executive Officer will request the product manufacturer or responsible party to supply product formulation data. The manufacturer or responsible party shall supply the requested information. Information submitted to the ARB Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in Title 17, California Code of Regulations, sections 91000 to 91022.

3.5.3 If the information supplied by the manufacturer or responsible party shows that the product does not meet the applicable VOC standards, then the Executive Officer will take appropriate enforcement action.

3.5.4 If the manufacturer or responsible party fails to provide formulation data as specified in section 3.5.2, the initial determination of VOC content under this section 3.5 shall determine if the product is in compliance with the applicable VOC standards. This determination may be used to establish a violation of ARB regulations.

3.7 Final Determination of VOC Content. If a product's compliance status is not satisfactorily resolved under section 3.5 and 3.6, the Executive Officer will conduct further analyses and testing as necessary to verify the formulation data.

3.7.1 If the accuracy of the supplied formulation data is verified and the product sample is determined to meet the applicable VOC standards, then no enforcement action for violation of the VOC standards will be taken.

3.7.2 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply information to explain the discrepancy.

3.7.3 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the supplied formulation data, then the results of Method 310 shall take precedence over the supplied formulation data. The results

of Method 310 shall then determine if the product is in compliance with the applicable VOC standards, and may be used to establish a violation of ARB regulations.

(b) Testing for Products Subject to the Reactivity Limits Specified in Section 94522(a)(3).

- (1) The ingredients and the amount of each ingredient of all aerosol coating products subject to the provisions of this article shall be determined by the procedures set forth in "Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products," adopted September 25, 1997 and as last amended on July 18, 2004 [Date of Amendment].
- (2) Upon written notification from the Executive Officer, the aerosol coating manufacturer shall have 10 working days to provide to the Executive Officer the following information for products selected for testing:
 - (A) the product category as defined in section 94521(a);
 - (B) the PWMIR;
 - (C) the weight fraction of all ingredients including: water, solids, each ROC, and any compounds assigned a MIR value of zero as specified in sections 94522(h), 94700, or 94701 [Each ROC must be reported as an ingredient if it is present in an amount greater than or equal to 0.1 percent by weight of the final aerosol coatings formulation. If an individual ROC is present in an amount less than 0.1 percent by weight, then it does not need to be reported as an ingredient. In addition, an impurity that meets the following definition does not need to be reported as an ingredient.

For the purpose of this section, an "impurity" means an individual chemical compound present in a raw material which is incorporated into the final aerosol coatings formulation, if the compound is present below the following amounts in the raw material:

- (i) for individual compounds that are carcinogens, as defined in 29 CFR section 1910.1200(d)(4), each compound must be present in an amount less than 0.1 percent by weight in order to be considered an "impurity."
- (ii) for all other compounds present in a raw material, a compound must be present in an amount less than

1 percent by weight in order to be considered an "impurity"];

- (D) any other information necessary to determine the PWMIR of the aerosol coating products to be tested.
- (3) Final determination of the PWMIR of the aerosol coatings shall be determined using the information obtained from section 94526(b)(1) and (2).
- (c) Exempt Compounds from Products Subject to the VOC Limits Specified in Section 94522(a)(2). Compounds exempt from the definition of VOC shall be analyzed according to the test methods listed below:
- (1) the exempt compound content of aerosol coating products shall be determined by "Air Resources Board Method 310, Determination of Volatile Organic Compounds (VOC) in Consumer Products," adopted September 25, 1997 and as last amended on ~~July 18, 2004~~ [Amendment Date], which is incorporated herein by reference.
 - (2) the following classes of compounds will be analyzed as exempt compounds only if manufacturers specify which individual compounds are used in the product formulations and identify the test methods, which prior to such analysis, have been approved by the Executive Officer of the ARB, and can be used to quantify the amounts of each exempt compound: cyclic, branched, or linear, completely fluorinated alkanes; cyclic, branched, or linear, completely fluorinated ethers with no unsaturations; cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (d) Metal Content. The metal content of metallic aerosol coating products shall be determined by South Coast Air Quality Management District (SCAQMD) Test Method 318-95 "Determination of Weight Percent Elemental Metal in Coatings by X-ray Diffraction" July 1996, which is incorporated herein by reference.
- (e) Specular Gloss. Specular gloss of flat and nonflat coatings shall be determined by ASTM Method D-523-89, March 31, 1989, which is incorporated herein by reference.
- (f) Acid Content. The acid content of rust converters shall be determined by ASTM Method D-1613-94 96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, ~~May 15, 1994~~ May 10, 1996, which is incorporated herein by reference.

- (g) Lacquers. Lacquer aerosol coating products shall be identified according to the procedures specified in ASTM Method D-5043-90, "Standard Test Methods for Field Identification of Coatings," April 27, 1990, which is incorporated herein by reference.

NOTE: Authority cited: Sections 39600, 39601, 39607, 41511, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39607, 40000, 41511, and 41712, Health and Safety Code.

[No changes are proposed to sections 94527 or 94528.]

APPENDIX B:
Summary of Regulations Adopted
and Dates of Regulatory Amendments

Summary of Consumer Products Regulatory Actions

Date	Regulatory Action	Effective Date	Site	Comments
6/16/89	Consumer Products Control Plan.	N/A	N/A	First Board action on consumer products. Board approved overall plan to fulfill HSC Section 41712 mandate and a goal of achieving a 50 percent reduction in VOC emissions from consumer products.
11/8/89	Regulation to Reduce VOC Emissions from Antiperspirants and Deodorants.	2/27/91	Article 2, Sections 94500-94506, Title 17, CCR.	First consumer product regulation adopted pursuant to the CCAA. Established VOC content limits for aerosol and non-aerosol antiperspirants and deodorants.
6/15/90	Regulation for Reducing VOC Emissions from Consumer Products in the Bay Area AQMD.	N/A	Article 2, Consumer Products, Sections 94520-94527, Title 17, CCR.	This regulation was adopted to reduce VOC emissions from consumer products in the Bay Area AQMD and establishes VOC limits for 6 consumer products.
10/1/90	Regulation for Reducing VOC Emissions from Consumer Products - Phase I.	10/2/91	Article 2, Consumer Products, Sections 94507-94516 and 94503.5, Title 17, CCR Amendments to Article 2, Section 94505, Title 17, CCR	Establishes VOC limits for 16 consumer products, repeals the Bay Area consumer product regulation, and amends the AP/DO regulation to include an innovative product provision and a revised variance procedure.
1/9/92	Adoption of Amendments to the Regulation for Reducing VOC Emissions from Consumer Products - Phase II.	1/6/93	Article 2, Consumer Products, Sections 94507-94517, Title 17, CCR.	Establishes standards for 10 additional categories of consumer products and several amendments to the existing regulation for clarification and improvement.
9/22/94	Adoption of the Alternative Control Plan Regulation for Consumer Products.	9/9/95	Article 4, Sections 94540-94555, Title 17, CCR.	A voluntary market-based regulation which supplements the existing consumer products regulation by providing manufacturers with additional flexibility for formulating products.
1/15/94	Approval of the California State Implementation Plan for Ozone.	2/14/95	N/A	Board approval of Ozone SIP which includes consumer products element comprised of near, midterm, and long term measures.

Summary of Consumer Products Regulatory Actions

Date	Regulatory Action	Effective Date	Site	Comments
3/23/95	Regulation for Reducing VOC Emissions from Aerosol Coating Products and Amendments to the Alternative Control Plan.	1/8/96	Article 3, Sections 94520-94528, Title 17, CCR Amendments to Article 4, Sections 94540 to 94543, 94547, 94550, 94551, and 94553, Title 17, CCR.	Establishes VOC content limits for 35 categories of aerosol paints. Amendments to ACP to incorporate aerosol coating products.
9/28/95	Amendments to the California Regulations for Reducing VOC Emissions from Antiperspirants and Deodorants, Consumer Products, and Aerosol Coating Products.	2/29/96	Amendments to Article 1, Sections 94500-94504, Title 17, CCR, Article 2, Section 94508(a)(90), Title 17, CCR, and Article 3, Section 94521(a)(62), Title 17, CCR.	The amendments to the AP/DO regulation address fairness concerns, preserves projected emission reductions required by the SIP, ensures that manufacturers will continue their efforts to develop zero percent products and provides a vehicle to monitor progress and to make the VOC definition more consistent with EPA's VOC definition. The consumer products regulation and the aerosol coatings regulation is modified to revise the VOC definition consistent with EPA's.
11/21/96	Amendments to the California Regulations for Reducing VOC Emissions from Consumer Products and Aerosol Coating Products.	11/18/97	Amendments to Article 2, Sections 94508, 94515 94517 and Article 3; Section 94521, Title 17, CCR.	The amendments to the consumer products regulation address postponement of the 25 percent standard for aerosol adhesives, modification to the VOC definition, amendment of various regulatory provisions to enhance clarity and compliance, and amendment to the test methods sections. The proposed amendments also modify the VOC definition in the aerosol coatings regulation.
3/27/97	Amendments Pertaining to Hairspray in the California Consumer Products Regulation.	8/24/98	Amendments to Article 2, Sections 94509, 94513, and 94514, Title 17, CCR.	Postpones the hairspray 55 percent VOC standard from 1/1/98 to 6/1/99, require plans demonstrating progress toward compliance from manufacturers selling hairspray not meeting the 55 percent VOC standard from 1/1/98 to 6/1/99, and modifies the variance provision to include a requirement for VOC emissions mitigation when granting a variance request for hairsprays from the 6/1/99 standard.

Summary of Consumer Products Regulatory Actions

Date	Regulatory Action	Effective Date	Site	Comments
7/24/97	Amendments to the Consumer Products Regulation, Mid-term Measures I.	7/1/98	Amendments to Article 2, Sections 94508, 94509, 94510, 94512, 94513, and 94514, Title 17, CCR.	All VOC standards with 1/1/2000, effective dates were extended to 1/1/2001. First tiers of the two-tiered VOC standards and additional reporting requirements for four product categories were eliminated; Effective dates of the VOC standard were changed for five product categories.
11/19/98	Amendments to the Aerosol Coating Products, the Antiperspirants and Deodorants Regulation, and the Consumer Products Regulation.	6/24/99	Amendments to Article 3, Section 94521, 94522, and 94524, Title 17, CCR; Article 1, Section 94501, Title 17, CCR; and to Article 2, Section 94508(a)(124), Title 17, CCR.	Relaxation of the second-tier VOC limits of the Aerosol Coating Products Regulation. Exemption of methyl acetate from the VOC definition in the Antiperspirants and Deodorants Regulation, the Consumer Products Regulation, and the Aerosol Coating Products Regulation.
10/28/99	Amendments to the Consumer Products Regulation, Mid-term Measures II.	11/19/2000	Amendments to Article 2, Section 94508, 94509, and 94513.	Amends the Consumer Products Regulation by adding product category definitions, VOC limits for two new categories, more stringent VOC limits for fifteen existing categories, and adding subcategories for some of the existing product categories with separate VOC limits for each subcategory. New or modified VOC limits become effective from 12/31/2000, to 12/31/2004. Amendments consolidates and expands the existing reporting requirements for products containing methylene chloride or perchloroethylene.
5/25/2000	Amendments to the Consumer Products Regulation relating to Aerosol Adhesives.	5/18/2001	Amendments to Article 1, Sections 94508, 94509, 94512, and 94513, Title 17, CCR.	Amendments eliminate the 25 percent VOC limit and establish new VOC limits for three new categories of aerosol adhesives, effective January 1, 2002. Amendments also include labeling and other requirements to facilitate compliance and enforcement of the new standards. Effective 1/1/2002, amendments also prohibit the use of methylene chloride, perchloroethylene, and trichloroethylene, which are toxic air contaminants, in aerosol adhesives manufactured for use in California.

Summary of Consumer Products Regulatory Actions

6/22/2000	Consumer Products Relating to Aerosol Coating Products, Proposed Tables of Maximum Incremental Reactivity (MIR) Values, and Amendments to Method 310.	7/18/2001	Amendments to Article 3, Sections 94521, 94522, 94523, 94524, and 94526. Added new sections 94700 and 94701, to Title 17, CCR.	Amendments replace the second tier mass-based VOC limits for 35 product categories with equivalent reactivity-based limits. In addition, a new subchapter, Subchapter 8.6, in title 17, CCR was adopted. New Subchapter 8.6, in sections 94700 and 94701, contains Tables of MIR Values that are used to set reactivity-based limits and determine compliance.
10/26/2000	Amendments to the Regulation to Reduce VOC Emissions from Antiperspirants and Deodorants.	4/24/2001	Amendments to Article 2, Sections 94502 and 94504, Title 17, CCR.	Amendments increased the HVOC limit for aerosol antiperspirants to 40 percent from the current zero percent limit, beginning 1/1/2001. The MVOC limit of 10 percent remains unchanged.

**APPENDIX C:
Meeting Notices
(Working Group and Workshop)**



Winston H. Hickox
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



Gray Davis
Governor

March 3, 2003

Dear Sir or Madam:

The California Air Resources Board (ARB/Board) staff invite you to join us via teleconference on Tuesday, March 11, 2003, 10:30 a.m. Pacific Standard Time, to discuss the concepts and timeline for upcoming consumer products regulatory activity. This will be the first meeting of the 2003 Consumer Products Regulation Workgroup, a subcommittee of the Consumer Products Working Group. This workgroup will serve as a forum for communication regarding the development of the consumer product regulations that will be presented to the Board in December 2003.

We look forward to your participation in the upcoming regulatory process. Use the following information to participate in the teleconference call.

Date and Time: Tuesday, March 11, at 10:30 a.m. (PST)
Call-in Time: Between 10:15 a.m. and 10:30 a.m.
Toll Free Number: (888) 324-2603
Passcode: CARB
Leader: Michelle Byars

If you have any questions about the conference call, please contact Michelle Byars at (916) 324-9551, or by e-mail at mbyars@arb.ca.gov.

During the last ten years, regulation of consumer products has resulted in a significant reduction of emissions from consumer products. However, after the latest standards are implemented in 2005, statewide emissions will begin to increase from consumer products due to population growth. Therefore, to ensure emissions growth will not overtake the reductions already achieved additional control measures are necessary.

The regulations will be developed primarily based on information received from the 2001 Consumer & Commercial Products Survey. The goal of new consumer products emission standards is to achieve a minimum emission reduction of 5 tons per day starting in 2006. Reductions will be achieved by setting mass-based and possibly reactivity-based standards.

The most current information about the ARB Consumer Products Program can be found at the following website: <http://www.arb.ca.gov/consprod/consprod.htm>. From this site you may also sign up for the Consumer Products Program list serve, which will send you an e-mail notice when new information is posted to the consumer products website about any of the consumer product program activities.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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Sir or Madam
March 3, 2003
Page 2

If you have any questions about this letter or the regulatory development process, please contact Mr. David Mallory, Manager, Measures Development Section, at (916) 445-8316, or by e-mail at dmallory@arb.ca.gov.

Sincerely,

/s/

Janette Brooks, Chief
Air Quality Measures Branch

Enclosure

cc: David Mallory, Manager
Measures Development Section

Michelle Byars
Measures Development Section



Winston H. Hickox
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



Gray Davis
Governor

October 3, 2003

Dear Sir or Madam:

The California Air Resources Board (Board) invites you to join us Tuesday, October 21, 2003, in Sacramento, California for a meeting of the Consumer Products Workgroup. This meeting will primarily serve as a forum for communication regarding the development of the consumer products regulations that will be presented to the Board in April/May 2004 (changed from original date of December 2003). We will also briefly discuss the amended State Implementation Plan (SIP) settlement agreement, the reporting requirements for aerosol adhesives, the next consumer products survey, and any other general consumer products issues participants wish to discuss (see Attachment 1 for proposed agenda).

We plan to hold this meeting at the Cal-EPA Headquarters Building in Sacramento. Because of limited seating, we encourage you to participate via teleconference. The following information is needed to participate in the call:

Date and Time: Tuesday, October 21, at 9:00 a.m. (PDT)
Call-in Time: Between 8:45 a.m. and 9:00 a.m.
USA Toll Free Number: 888-316-9409
(International callers use toll number +1-630-395-0020)
Passcode: CARB
Leader: Michelle Byars

Please note that you do not need to notify us if you plan to participate via teleconference, however, if you prefer to attend in person, please contact Ms. Michelle Byars by e-mail at mbyars@arb.ca.gov to verify seating availability. Contact Ms. Byars no later than Thursday, October 16th. In the email, please provide your company name, phone number, and number of people attending.

Approximately one week prior to the workgroup meeting we expect to post the list of potential categories to be regulated, the 2001 Survey Preliminary Data Summaries, and a list of proposed regulatory changes to the consumer products website (<http://www.arb.ca.gov/consprod/regact/cprwg/cprwg.htm>). Once these items have been posted, a List Serve email will be sent to subscribers announcing that the handouts have been posted. If you have not done so already, you can subscribe to the Consumer Products Program List Serv at <http://www.arb.ca.gov/listserv/consumer-products/consumer-products.htm>.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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Sir or Madam
October 3, 2003
Page 2

We look forward to your participation in the workgroup process. If you have any questions about this letter or the regulatory development process, please contact Ms. Michelle Byars or Mr. David Mallory, Manager, Measures Development Section, at (916) 445-8316, or by e-mail at dmallory@arb.ca.gov.

Sincerely,

David J. Mallory for:

Janette Brooks, Chief
Air Quality Measures Branch

Enclosure

cc: David Mallory, Manager
Measures Development Section

Michelle Byars
Measures Development Section



Terry Tamminen
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

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Sacramento, California 95812 • www.arb.ca.gov



Arnold Schwarzenegger
Governor

December 3, 2003

Dear Sir or Madam:

The California Air Resources Board (Board) invites you to join us Tuesday, December 16, 2003, in Sacramento, California for a meeting of the Consumer Products Workgroup. This will be the third meeting regarding the development of the consumer products regulations that will be presented to the Board in April/May 2004. We will be discussing proposed category definitions and VOC limits, the proposed regulatory language changes, and other issues related to the next regulatory effort (see Attachment 1 for proposed agenda).

We plan to hold this meeting at the Cal-EPA Headquarters Building in Sacramento. You may attend in person, or participate via teleconference. The following information is needed to participate via teleconference:

Date and Time: **Tuesday, December 16, at 9:00 a.m. (PST)**
Call-in Time: **Between 8:45 a.m. and 9:00 a.m.**
USA Toll Free Number: **888-316-9409**
(International callers use toll number +1-210-839-8502)
Passcode: **CARB**
Leader: **Michelle Byars**

Please note that you do not need to notify us if you plan to participate via teleconference, however, if you choose to attend in person, please contact Ms. Michelle Byars by e-mail at mbyars@arb.ca.gov to verify seating availability. Contact Ms. Byars no later than Thursday, December 11. In the e-mail, please provide your company name, phone number, and number of people attending.

Approximately one week prior to the workgroup meeting we expect to post at the consumer products website <http://www.arb.ca.gov/consprod/regact/cprwg/cprwg.htm>, the draft regulatory category definitions with proposed VOC limits and updated language for the proposed regulatory changes. Once these items have been posted, a List Serve e-mail will be sent to subscribers announcing that the handouts have been posted. We will provide opportunity to discuss these materials at the workgroup meeting and will accept written comments through January 7, 2004. If you have not done so already, you can subscribe to the Consumer Products Program List Serve at <http://www.arb.ca.gov/listserv/consumer-products/consumer-products.htm>.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.

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Sir or Madam
December 3, 2003
Page 2

We look forward to your participation in the workgroup process. If you have any questions about this letter or the regulatory development process, please contact Ms. Michelle Byars or Mr. David Mallory, Manager, Measures Development Section, at (916) 445-8316, or by e-mail at dmallory@arb.ca.gov.

Sincerely,


Janette Brooks, Chief
Air Quality Measures Branch

Attachment

cc: David Mallory, Manager
Measures Development Section

Michelle Byars
Measures Development Section



Terry Tamminen
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

1001 I Street • P.O. Box 2815
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Arnold Schwarzenegger
Governor

February 24, 2004

Dear Sir or Madam:

The California Air Resources Board (ARB or Board) invites you to join us Wednesday, March 10, 2004, in Sacramento, California for a meeting of the Consumer Products Workgroup. This will be the fourth meeting regarding the development of the consumer products regulations that will be presented to the Board in June 2004. We will be discussing proposed category definitions and volatile organic compound (VOC) limits, the proposed regulatory language changes, and other issues related to the next regulatory effort (see Attachment 1 for proposed agenda). We are asking that any written comments regarding topics discussed at the workgroup meeting be submitted to ARB staff by March 24, 2004.

We plan to hold this meeting at the Cal-EPA Headquarters Building, 1001 I Street, Sierra Hearing Room, in Sacramento. You may attend in person or participate via teleconference. The following information is needed to participate via teleconference:

Date and Time: **Wednesday, March 10, at 9:00 a.m. (PST)**
Call-in Time: **Between 8:45 a.m. and 9:00 a.m.**
USA Toll Free Number: **888-462-1974**
Passcode: **Consumer Products**
Leader: **Sue Wyman**

Please note that you do not need to notify us if you plan to participate via teleconference, however, if you choose to attend in person, please contact Mr. David Mallory by e-mail at dmallory@arb.ca.gov to verify seating availability. Contact Mr. Mallory no later than Thursday, March 4. In the e-mail, please provide your company name, phone number, and number of people attending.

Approximately one week prior to the workgroup meeting we expect to post at the consumer products website <http://www.arb.ca.gov/consprod/regact/cprwg/cprwg.htm>, the draft regulatory category definitions with proposed VOC limits and updated language for the proposed regulatory changes. Once these items have been posted, a List Serve e-mail will be sent to subscribers announcing that the handouts have been posted. We will provide an opportunity to discuss these materials at the workgroup meeting and will accept written comments through March 24, 2004. If you have not done so already, you can subscribe to the Consumer Products Program List Serve at <http://www.arb.ca.gov/listserv/consumer-products/consumer-products.htm>.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.

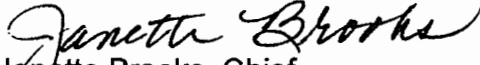
California Environmental Protection Agency

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Sir or Madam
February 24, 2004
Page 2

We look forward to your participation in the workgroup process. If you have any questions about this letter or the regulatory development process, please contact Mr. David Mallory, Manager, Measures Development Section, at (916) 445-8316, or by e-mail at dmallory@arb.ca.gov. TTY/TDD/Speech/to/Speech users may dial 711 for the California Relay Service. To obtain a copy of this document in an alternative format or if you have special accommodation needs, please contact the ADA Coordinator at (916) 323-4916.

Sincerely,


Janette Brooks, Chief
Air Quality Measures Branch
Stationary Source Division

Attachment

cc: David Mallory, Manager
Measures Development Section
Air Quality Measures Branch

Michelle Byars
Measures Development Section
Air Quality Measures Branch



Terry Tamminen
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.

Chairman

1001 I Street • P.O. Box 2815

Sacramento, California 95812 • www.arb.ca.gov



Arnold Schwarzenegger
Governor

February 24, 2004

Dear Interested Parties:

The Air Resources Board (ARB or Board) invites you to participate in a public workshop to discuss the development of proposed modifications to the consumer products regulations. These proposed modifications are consistent with ARB's State Implementation Plan for Ozone and are necessary to help California meet its commitment to attain ambient air quality standards. At this workshop we will discuss staff's proposed regulatory language modifications and proposed new volatile organic compound (VOC) limits for specific categories of consumer products. We will provide you with background information, receive questions, and welcome your comments on our proposals. Approximately one week prior to the workshop, we plan to post a "strike-out/underline" version of the consumer products regulation on our website (see address below) which will contain all proposed modified language and new VOC limits. We are asking that any written comments regarding topics discussed at the public workshop be submitted to ARB staff by March 24, 2004.

The workshop will be held at the time and location shown below:

Workshop Date:	March 11, 2004
Time:	10:00 a.m. (PST)
Location:	Sierra Hearing Room Cal EPA Headquarters Building 1001 I Street Sacramento, California

For interested parties unable to attend the workshop in person, we will be offering an internet webcast of the meeting. To access the webcast, log in to the following web address, http://www.arb.ca.gov/app/calendar/cal_wbcst.php. For those persons wishing to provide comments or questions remotely during the webcast, an email address to do so will be provided by staff at the beginning of the workshop.

You can find additional information on the workshop, staff's latest proposal for modifications to the consumer products regulations, and the staff's workshop presentation at the website <http://www.arb.ca.gov/consprod/regact/cprwg/cprwg.htm>. This website will be updated regularly with information pertinent to this workshop. Attendees should check this website prior to attending to keep updated on substantive information about this workshop.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web site: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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Interested Parties
February 24, 2004
Page 2

If you wish to receive e-mail notification of updates on the workshop and ARB's Consumer Products Program, please register for our Consumer Products list serve at <http://www.arb.ca.gov/listserv/consumer-products/consumer-products.htm>.

If you have any questions about the workshop or need additional information, please call Mr. David Mallory, Manager, Measures Development Section, at (916) 445-8316 or e-mail him at dmallory@arb.ca.gov. TTY/TDD/Speech-to-Speech users may dial 711 for the California Relay Service. To obtain a copy of this document in an alternative format or if you have special accommodation needs, please contact the ADA Coordinator at (916) 323-4916.

Sincerely,

/S/

Janette Brooks, Chief,
Air Quality Measures Branch
Stationary Source Division

cc: David Mallory, Manager
Measures Development Section
Air Quality Measures Branch

Michelle Byars
Measures Development Section
Air Quality Measures Branch

**APPENDIX D:
2001 Consumer and Commercial Products Survey**

2001 CONSUMER & COMMERCIAL PRODUCTS SURVEY

Survey Due Back
to ARB by:
January 31, 2003



California Environmental Protection Agency

Air Resources Board



Winston H. Hickox
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



Gray Davis
Governor

September 24, 2002

Dear Sir or Madam:

Enclosed please find a copy of the California Air Resources Board's (CARB) 2001 Consumer & Commercial Products Survey (survey). In the survey, CARB will be gathering data about consumer and commercial products that were sold with intention for use in California during Calendar Year 2001. The purpose of the survey is to gather current information on volatile organic compound (VOC) emissions from selected product categories. The data will be used to update our consumer products emissions inventory and will assist us as we evaluate the feasibility of further reducing consumer product emissions.

To help develop the survey, the 2001 Survey Stakeholder Workgroup (Workgroup) was formed. The input received from the more than 90 stakeholders that actively participated in the Workgroup was invaluable in developing the survey.

I would like to express my personal appreciation to the individuals and associations that assisted us in developing this survey. Further, I recognize that completing a survey such as this takes effort and resources and I appreciate the recognition of the importance of this information and the commitment to complete the survey.

Products in the following consumer and commercial categories are covered by the survey:

- Adhesive Remover
- Anti-Static Product
- Body Wipes
- Contact Adhesive
- Electronic Cleaner
- Fabric or Leather Waterproofer
- Footwear Care Product
- General Purpose Degreaser
- Graffiti Remover
- Insect Repellent: non-aerosol
- Jewelry Cleaner
- Leather Care Product
- Multi-purpose Remover
- Packaged Solvent
- Personal Foaming Product
- Personal Hygiene Product
- Shaving Gel
- Solvent Parts Cleaner: non-aerosol
- Wood Cleaner
- Fabric Care
- Hair Care
- Nail Care
- Toilet/Urinal Care

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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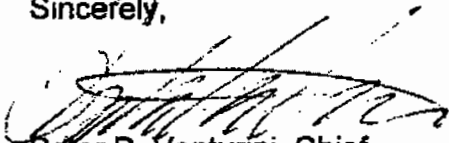
Sir or Madam
September 24, 2002
Page 2

Please return the form on page 3 to CARB as soon as possible, but no later than October 15, 2002. This form will help you determine if you are a responsible party for any product covered by the survey, and will also help CARB track receipt of the survey packet. To assist you in completing the survey more quickly, we strongly encourage using the electronic submittal option (see page 15 for details).

We have also included a voluntary evaluation as the last page of the survey. Following completion of the survey forms, please rate the layout, usability, and readability of the survey packet and submit this evaluation to CARB. Together, we can further improve the format for future survey efforts.

For additional hardcopies of the survey or for more information about the electronic submittal option, see the survey website at: <http://www.arb.ca.gov/consprod/regact/2001surv/2001surv.htm>. If you have questions concerning completion of the survey, please contact Ms. Michelle Byars, Measures Development Section, at (916) 324-9551, or by e-mail at mbyars@arb.ca.gov, or you may contact Ms. Amy Livingston, Measures Development Section, at (916) 324-9549, or by e-mail at alivings@arb.ca.gov. If you have specific questions concerning the product categories included in the survey, please contact the appropriate staff person listed in Attachment A, page 37.

Sincerely,



Peter D. Venturini, Chief
Stationary Source Division

Enclosure

cc: David Mallory, Manager
Measures Development Section

Michelle Byars
Measures Development Section

Amy Livingston
Measures Development Section

2001 CONSUMER & COMMERCIAL PRODUCTS SURVEY

Survey Due Back
to ARB by:
January 31, 2003



California Environmental Protection Agency

Air Resources Board

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PART I: Responsible Party Identification

PRELIMINARY FORM: WHO MUST COMPLETE THE SURVEY?

Each **responsible party** must complete the entire survey. For the purpose of this survey, the "responsible party" means the company, firm, or establishment listed on the label of a consumer or commercial product covered by this survey (see survey categories, page 78) that was sold with intention for use in California during Calendar Year 2001. If the label lists two companies, firms, or establishments, the responsible party is the party that the product was "manufactured for" or "distributed by," as noted on the label.

Upon receipt of this Survey packet, you **must** immediately complete and submit *this* page to ARB, no later than October 15, 2002.

1. Are you a *responsible party*? Check (✓) "Yes" or "No"

Yes. My company is a *responsible party* (see definition above).

Optional: Which format do you *plan* to use for submitting survey data? Check (✓) one

- Electronic Option (see page 15 for information about the interactive forms)
 Hardcopy Option

No. My company is not a *responsible party* (see definition above).

For this case, submit this page only; do not complete the entire survey packet.

2. Complete the following information:

Your Company Name: _____	Website: _____
Address: _____	
City: _____	State: _____ Zip: _____
Contact Person: _____	Title: _____
Phone: _____	Fax: _____ Email: _____
<i>To help us ensure more complete market coverage, please answer the following.</i>	
Does your company represent, or is it associated with another company that is a <i>responsible party</i> for any product covered by this survey? Check (✓) one	<input type="checkbox"/> Yes → Provide the company name, address, contact name, and contact phone number on a separate sheet of paper and we will make sure they have received a survey. <input type="checkbox"/> No
Name: _____	Title: _____
Signature: _____	Date: _____

3. By October 15, 2002, send this page by fax to (916) 327-5621, or cut and fold this page as indicated, apply required postage, and mail to the address on the back of this page.

For questions about this page, contact Trish Villegas at (916) 323-9688 or by e-mail at tvillega@arb.ca.gov

Postage
required

California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812
Attn: SSD, Measures Development Section, 2001 Survey

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PART II: Survey Introduction

PART II: SURVEY INTRODUCTION

OVERVIEW

This section provides background about how the 2001 Consumer & Commercial Products Survey (survey) relates to the Consumer Products Program, and the purpose and goals for the survey.

Background

The information requested in this survey is made pursuant to Sections 39600, 39607, 39701, and 41511 of the California Health and Safety Code, and Sections 91100 and 94513, Title 17, of the California Code of Regulations (CCR). These sections authorize the California Air Resources Board (ARB) to *require* the submission of information needed by the Board to estimate atmospheric emissions and to carry out its other statutory duties. Associated laws and regulations may be found at the following website: www.arb.ca.gov/html/lawsregs.htm.

The Consumer Products Program is an important part of ARB's overall effort to reduce emissions from the use of consumer products in homes and institutions. Section 41712 of the California Health and Safety Code requires the ARB to adopt regulations that achieve the maximum feasible reduction in *volatile organic compound (VOC)* emissions from consumer products. VOCs that are emitted from consumer products react with other pollutants in the presence of sunlight to form ground-level ozone and particulate matter, which are the main ingredients of smog.



The ARB developed California's State Implementation Plan (SIP) for ozone in 1994. The SIP serves as California's overall long-term plan for attainment of the federal ozone standards. In the SIP, VOC emissions from consumer products were estimated to be 265 tons per day in 1990. ARB committed to achieving significant reductions from consumer product emissions by 2010. To help achieve these reductions, VOC standards have been developed for 83 consumer product categories.

Regulation of consumer products has resulted in considerable reductions of emissions from consumer products during the last ten years. However, after the latest standards are implemented in 2005, emissions will begin to increase from consumer products due to population growth. Therefore, additional control measures are necessary so that this emissions growth will not overtake the reductions already achieved. As part of the regulatory process, the ARB must determine that adequate data exists to adopt regulations. This survey is a primary step in gathering the data. Additionally, Section 41712(c) of the California Health and Safety Code stipulates that no regulation shall be adopted which requires the elimination of a product form.

Purpose & Goals

This purpose of this survey is to gather current information on *volatile organic compound (VOC)* emissions from selected consumer and commercial product categories. The survey has two goals: first to update our consumer products emissions inventory, and second to assist us in determining the feasibility of further reducing consumer products emissions. Please note that all categories surveyed will not necessarily be regulated; only those where new VOC limits are determined to be commercially and technologically feasible.

Purpose: to gather current information on VOC emissions from selected product categories.

SURVEY DEVELOPMENT

The following section provides information about how the survey was developed and describes how this survey differs from the last consumer and commercial product survey performed for 1997.

Workgroup Formed

The ARB sent over 3,000 invitation letters to potential consumer product stakeholders to help establish the 2001 Survey Stakeholder Workgroup (Workgroup), a subcommittee of the Consumer Products Workgroup. The Workgroup served as a forum for on-going communication between ARB and stakeholders regarding the development of the survey. Close to 300 representatives from industry, environmental groups, concerned citizens, and government agencies chose to receive updates on this survey development process. Ultimately, over 90 stakeholders actively participated in the development of this survey.

Over 90 stakeholders helped ARB develop this survey.

Three Workgroup meetings were held which were open to the public and announced to the Workgroup as well as the consumer product list-server. The meetings averaged 50 participants, not including ARB staff. The meetings offered participation by teleconference or in-person and written comments were taken in the weeks following each meeting. The Workgroup meetings were held as follows:

- April 4, 2002 – This initial meeting introduced the ARB Consumer Products Program and the staff working on the survey, provided the proposed categories that would be surveyed, and presented the expected timeline for sending the survey and for taking potential regulations to the Board.
- May 30, 2002 – ARB released the first full draft of the survey about a week before the meeting. Based on comments from the previous meeting, changes were made to the survey categories and presented at this meeting. Stakeholders provided verbal comments.
- July 25, 2002 – In preparation for this final meeting, the second full draft of the survey was released with changes incorporated from comments received at the previous meeting. Stakeholders provided final verbal comments concerning the survey layout and survey categories.

We would like to thank the many participants from the Workgroup that worked together with us over the last several months to develop this survey. Special thanks to The Cosmetic, Toiletry, And Fragrance Association (CTFA), Consumer Specialty Products Association (CSPA), International Sanitary Supply Association, Inc. (ISSA), National Paint & Coatings Association (NPCA), The Chlorobenzene Producers Association (CPA), The American Beauty Association (ABA)/Nail Manufacturers' Council (NMC), and The Automotive Specialty Products Alliance (ASPA). We also want to thank the numerous individuals not specifically listed here that provided valuable insight and comments during the survey development process. The survey reflects those considerations and has been greatly improved as a result of input from the Workgroup.

PART II: SURVEY INTRODUCTION

New Since the '97 Survey

This survey was developed using the ARB 1997 Consumer & Commercial Products Survey ('97 Survey) as a starting point. The following is a list of major differences that can be found in the current survey:

- **Speciation of LVP-VOC solvents** – This survey requires not only speciation of VOCs, but also *low vapor pressure volatile organic compound (LVP-VOC)* solvents. This change is necessary to enable staff to develop reactivity-based standards, if appropriate.
- **Product label submission requirement** – Respondents are required to submit one entire product *label* for every product or *product group* for this survey. Original *labels*, photocopies, scanned images, and *.pdf files are acceptable. For more details on submitting the *labels*, see FORM 3 instructions on page 29. Submission of product *labels* will enable staff to better characterize products into specific categories.
- **Completed survey due within 120 days** – Although the '97 Survey followed Section 94513(a) of the Consumer Products Regulation, which provides 90 days for response, this survey requires complete submission from both the *responsible party* and *formulator* to the ARB within 120 days. The additional 30 days for survey submission was afforded because more detailed information is required for this survey compared to the '97 Survey.
- **Gathering information for reactivity** – To help the ARB determine if a survey category has the potential to be regulated using reactivity based standards, this survey requires the Bin number, trade name and *manufacturer for hydrocarbon solvents*. See FORM 4 instructions on page 32 for details. Also, see page 17 for a website address to find out more information about reactivity.
- **NAICS code reporting** – Rather than using Standard Industrial Classification (SIC) codes, respondents will report industry classification using the 2002 North American Industry Classification System (NAICS) codes on this survey.
- **Expanded electronic version** – Compared with the '97 Survey, a more detailed and expanded interactive version of the survey has been developed that will allow respondents to complete *all* data forms electronically. See page 15 for details.
- **Updated survey format** – The forms are provided in a landscape orientation to easily distinguish them from the body of the survey. Additionally, for convenience when filling out the forms, detailed instructions can be found on the back of each form, with a numerical indexing system that is used to make finding specific instructions easier.

**PART III:
Before You Begin...**

PART III: BEFORE YOU BEGIN...

GUIDELINES FOR COMPLETING THE SURVEY

This section provides an overview for particular items on the forms and provides guidelines for filling out and completing the survey. Before you begin filling out the survey forms, please carefully read through these guidelines and the instructions on the back of the forms. Note: *only* use the forms in this survey packet, do not use *any* previous consumer product survey forms.

Who Must Complete the Survey?

Each *responsible party* must complete the entire survey. For the purpose of this survey, the "responsible party" means the company, firm, or establishment listed on the label of a consumer or commercial product covered by this survey (see survey categories, page 78) that was sold with intention for use in California during Calendar Year 2001. If the label lists two companies, firms, or establishments, the responsible party is the party that the product was "manufactured for" or "distributed by," as noted on the label.

If you are a *responsible party* for any product covered by this survey (see survey categories, page 78), this survey is mandatory and must be submitted to the ARB by January 31, 2003. If we do not receive a completed survey by the due date, it is a violation of state regulations and the *responsible party* will be referred to the ARB's Enforcement Division for appropriate enforcement action.

**The survey must be received
from both the *responsible party*
and *formulator* by
January 31, 2003.**

The completed survey must be received by January 31, 2003 from both the *responsible party* and *formulator*. If you are using a *formulator*, we advise sending the copy of the ingredient form (FORM 4) to the *formulator* in a timely manner to allow time for completion before the due date.

Using a Formulator

For the purposes of this survey, the "formulator" means a company/person, other than the *responsible party*, that holds the ingredient information for a product. Because many *responsible parties* do not hold their own formulas, it is expected that many *formulators* will be submitting product ingredient information to ARB. FORM 2 has been provided for *responsible parties* to identify which *formulators* will be submitting ingredient information on behalf of the *responsible party*. The *responsible party* is ultimately responsible for ensuring all survey data is turned in to the ARB by the due date.

Designation of Confidential Information

State law protects the confidentiality of trade secrets (Title 17, CCR, Sections 91000-91022). The Confidential Information Form on page 21 provides a summary of these regulations and the full citation of these sections is provided in Attachment B on page 39. The ARB has many years of experience in handling confidential information and takes its responsibilities very seriously. All confidential information will be kept in specifically designated, locked file cabinets and will only be accessible to authorized ARB staff on an "as needed" basis.

If you wish to designate information as confidential, fill out the Confidential Information Form on page 21 and check the confidential box on each form as described. The confidential boxes, like the one shown to the left, are located in the upper left-hand corner of all forms. All information that is designated as confidential will be handled in strict accordance with ARB confidentiality regulations and policies.

Check (✓) if
Confidential

Types of Products to Report

This survey is intended to collect information about chemically formulated consumer and commercial products used by households and institutions (such as commercial, service, and governmental establishments), and also products used by industrial entities for the maintenance or operation of their facilities. This survey only covers products sold with intention for use in California, during Calendar Year 2001. This survey is *not* intended to collect information about industrial products used *exclusively* for on-site manufacture or construction of goods or commodities. A list of the product categories covered by this survey has been provided on page 37.

Prescription-only drugs and agricultural-use *pesticides* are not covered by this survey, and do not need to be reported. However, for the purposes of this survey, over-the-counter drugs (OTC), anti-microbial, health benefit products, and *pet care products* are consumer products and must be reported. FORM 3, Section B, Item 5, "Product Type" contains check boxes for OTC drugs, and *pet care products*. These designations will enable staff to differentiate OTC drugs from non-drugs, and products intended for humans from those intended for pets. In addition, *pet care products* will be reported separately in the published results of the survey.

Understanding Category Descriptions vs. Related Definitions

As an aid for completing the survey, please note the difference between *Category Descriptions* (page 78) and *Related Definitions* (page 85). Category descriptions are provided to detail the specifics of each category being surveyed, while, the related definitions are included solely for the purpose of clarifying terms used throughout the survey.

Category Descriptions. To clearly describe the product categories covered in this survey, the complete list of category descriptions has been provided on page 78. It should be noted that these descriptions are for survey purposes only. Some of the categories chosen for this survey are defined and/or regulated in the California Consumer Products Regulation (Title 17, CCR, Sections 94507-94517). However, some of these "regulatory definitions" have been modified, for survey purposes only, to gather a broader range of information about those categories. Because these descriptions are for survey purposes only, they are referred to as "descriptions" rather than definitions.

The general survey categories are listed below. See page 78 for complete titles, ARB survey codes, and full descriptions of the categories.

- Adhesive Remover
- Anti-Static Product
- Body Wipes
- Contact Adhesive
- Electronic Cleaner
- Fabric or Leather Waterproofer
- Footwear Care Product
- General Purpose Degreaser
- Graffiti Remover
- Insect Repellent: non-aerosol
- Jewelry Cleaner
- Leather Care Product
- Multi-purpose Remover
- Packaged Solvent
- Personal Foaming Product
- Personal Hygiene Product
- Shaving Gel
- Solvent Parts Cleaner: non-aerosol
- Wood Cleaner
- Fabric Care
- Hair Care
- Nail Care
- Toilet/Urinal Care

Related Definitions. To help clarify terms used throughout the survey, many related definitions have been provided on page 85. All of the definitions in this section are intended for survey purposes only. Many of the related definitions are worded exactly as they appear in the California Consumer Products Regulation (Title 17, CCR, Sections 94500-94506.5, 94507-94517, and 94520-94528). However, ARB

PART III: BEFORE YOU BEGIN...

staff defined or redefined the remaining related definitions for survey purposes only. This survey is not intended to be used in conjunction with the California Consumer Products Regulation; all necessary information to complete this survey is provided within this document.

Reporting Products

This section provides instruction on how to report specific products and keep track of multiple products when submitting the survey.

Selecting Category Codes. A list of the product categories covered by this survey and their respective ARB survey codes have been provided on page 37; they are also listed with the full category descriptions on page 78. On FORM 3, Section B, Item 1 "Primary Category Code," you must select the category code that *best* describes your product according to the product's *principal display panel*. Note that there is also space for listing additional category codes for products that fit into more than one survey category, according to their *principal display panel*. The "Additional Category Codes" field has been added to this survey because of the unique products being surveyed that have multiple-use claims listed on their *principal display panel*.



For example: a 3-in-1 nail product that is a nail polish primarily, but also has topcoat and base coat claims listed on the *principal display panel*, would require three different category codes: a primary category code of 41 for nail polish, and the additional category codes of 45 for topcoat, and 40 for base coat/undercoat.

Grouping of Products. Rather than reporting very similar products multiple times, a single *product group* may be reported. If a group of products meets the requirements for grouping as defined below, only one FORM 3 and one FORM 4 is required for that *product group*. Please note that if you have grouped products, you need to list these products as described in the instructions on FORM 3.

Product Group means a group of products represented together for the purposes of this survey that differ only by size, color, and/or fragrance, and meet all of the following grouping requirements:

1. All products must have the same Category Code;
2. All products must be the same form (e.g. aerosol, pump spray, etc.); and
3. Grouped products must have no greater than two percent variation in total VOC content, where the difference is only due to the type or amount of *fragrance* or *colorant*.

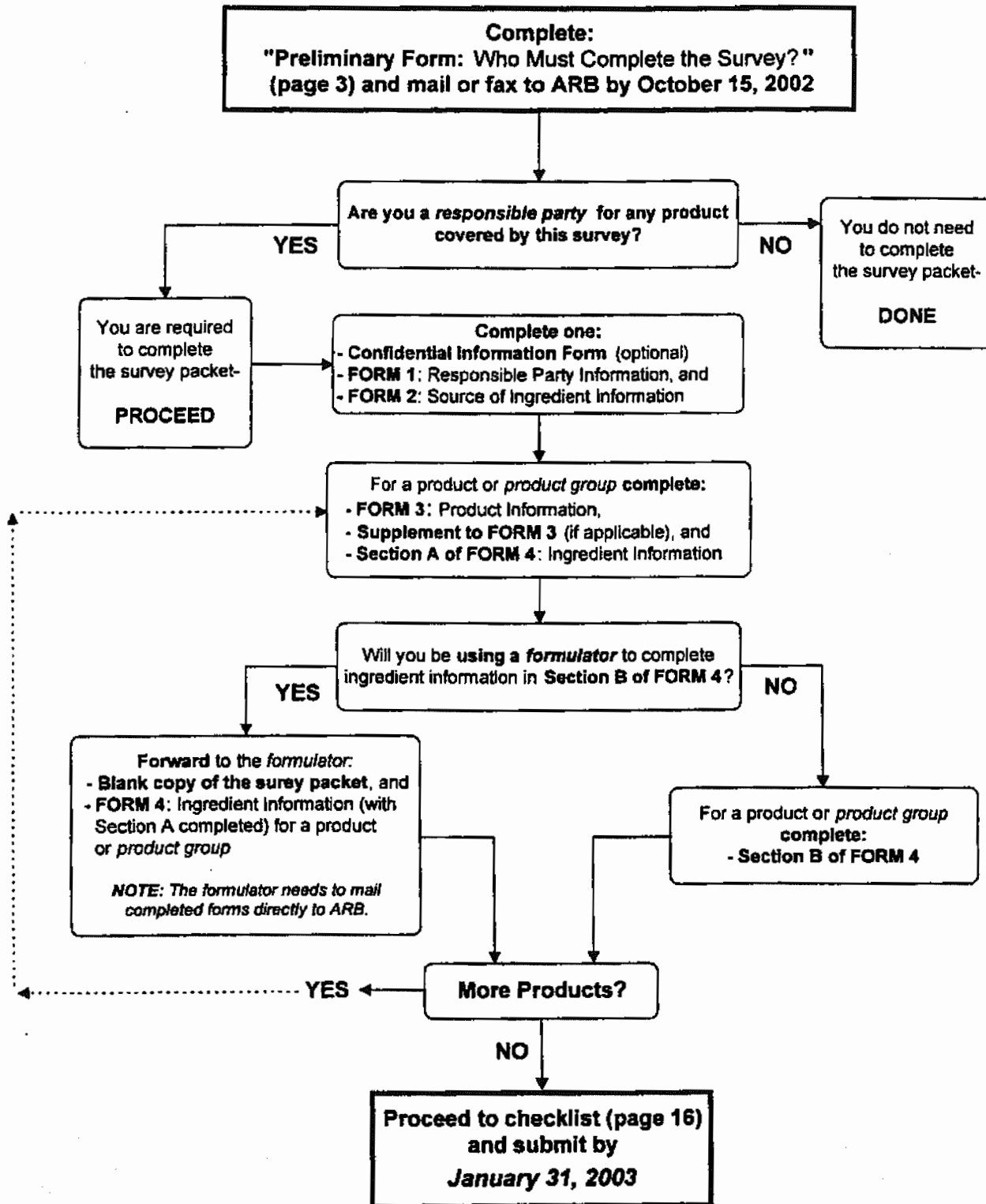
Using Product Tracking Numbers. For each product or *product group*, a "product tracking number" must be assigned by the *responsible party* to associate all related forms and *labels* that provide data for each product or *product group*. The *responsible party* must assign a sequential (1,2,3,4...) tracking number for each product or *product group* submitted. The number should then be entered into the "Product Tracking #" box, like the one shown to the right, which is located in the upper right corner of FORMS 3, 4, and if applicable for that product, the Supplement to FORM 3.

Product Tracking #:

For example: the first product submitted will have a "1" written into the "Product Tracking #" box on both FORM 3 and FORM 4 for that product; the second product will have a "2" in the "Product Tracking #" box on both FORM 3 and FORM 4; and so on. This tracking number is also used on the *label*, FORM 2, and the Supplement to FORM 3.

Flowchart for Completing the Survey

This flowchart has been provided to guide respondents through completing this survey. Respondents should use this chart to ensure that they understand the steps in completing survey forms.



PART III: BEFORE YOU BEGIN...

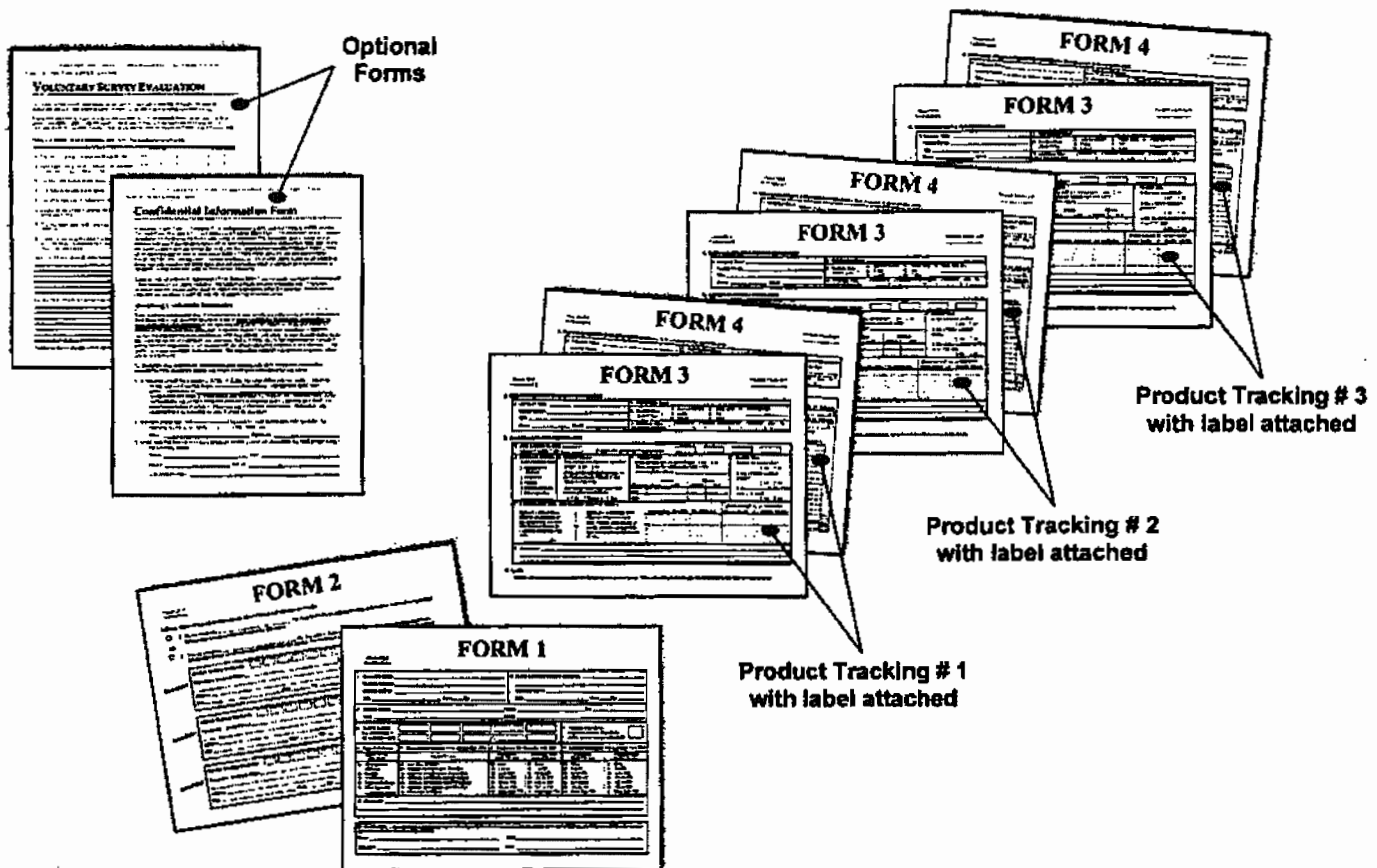
SUBMITTING THE COMPLETED SURVEY

This section provides details about the two options to complete and submit the survey and about how to submit the survey once complete. Choose only one submission option, *either* the hardcopy option or the electronic option as described below. A checklist is also provided to reference before mailing the survey back to ARB.

Hardcopy Option

The survey forms may be typed or filled out by hand. Once completed, mail the hardcopies to one of the addresses listed below in the "Mailing" section.

When mailing hardcopies, assemble the forms in such a way as to keep related forms together, as shown in the example below. In addition, attach each product *label* to its corresponding FORM 3.

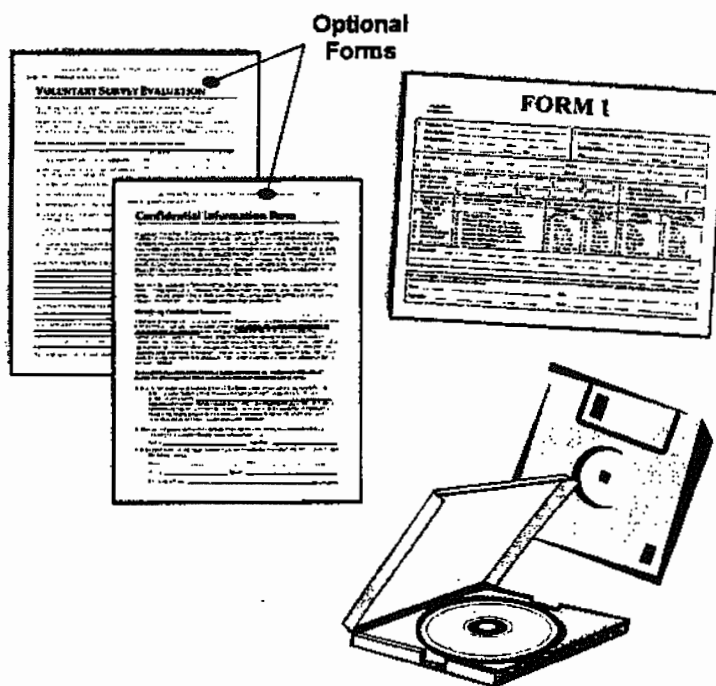


Electronic Option

An interactive electronic version of the survey is being offered to assist you in filling out the forms. To save time, the electronic version will automatically fill in duplicative areas on the forms. The electronic version will also allow you to generate reports after entering the survey data. To simplify and streamline the data gathering process, we strongly encourage using the electronic submittal option that is available.

Following completion of all data entry, the information should be saved to a disc and mailed to ARB (see mailing addresses below) along with a completed hardcopy of FORM 1 and if applicable, a hardcopy of the Confidential Information Form and the Voluntary Survey Evaluation. See FORM 3 instructions for information on hardcopy and electronic label submittal.

Visit the survey website for more details on obtaining the electronic forms at: www.arb.ca.gov/consprod/regact/2001surv/2001surv.htm. Contact ARB survey staff (see page 37) if you have any questions regarding electronic submittal.



Mailing

Refer to the "Checklist for Submitting the Survey" on the next page to ensure your survey packet is complete, and then return the completed survey (*either* the electronic *or* hardcopy option) to one of the addresses below.

Regular Mail:

California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812
Attn: SSD, Measures Development Section,
2001 Survey

Overnight Mail:

California EPA Headquarters Building
Air Resources Board
1001 I Street (6th Floor)
Sacramento, CA 95814
Attn: SSD, Measures Development Section,
2001 Survey

PART III: BEFORE YOU BEGIN...

Checklist for Submitting the Survey

This checklist has been provided as a tool to help respondents ensure that each part of the survey has been completed before mailing. See "Mailing" section (previous page) for addresses. The table also summarizes "who" is responsible for "which" components of the survey, and lists the due dates for each survey component.

Required By:	Survey Component:	Due Date:
Everyone Who Receives the Survey Packet	✓ Preliminary Form: Who Must Complete the Survey? -upon receipt, immediately mail or fax to ARB -submit one	October 15, 2002
Responsible Party	✓ FORM 1 - Responsible Party Information -submit one ✓ FORM 2 - Source of Ingredient Information -submit one ✓ FORM 3 - Product Information -submit one per product or <i>product group</i> -attach one representative label to each FORM 2 ✓ Supplement to FORM 3 - Product Group Details -submit one per <i>product group</i>	January 31, 2003
Responsible Party and Formulator (if applicable)	✓ FORM 4 - Ingredient Information -submit one per product or <i>product group</i> - <i>responsible party</i> always completes Section A - <i>responsible party</i> may need to forward FORM 4 to a <i>formulator</i> for completion of Section B	January 31, 2003
Optional For:	Survey Component:	Due Date:
Responsible Party and Formulator	✓ Confidential Information Form -submit one ✓ Voluntary Survey Evaluation -submit one	January 31, 2003

FOR MORE INFORMATION...

This section lists way to obtain more information about this survey, consumer products and other air pollution regulations, and provides staff contacts.

Websites

The following sites are provided for more information, however, they are not required to complete this survey.

- **Survey** – www.arb.ca.gov/consprod/regact/2001surv/2001surv.htm – Survey forms, related meetings and information, correspondence and other activities related to this survey are posted here.
- **Consumer Products Program** – www.arb.ca.gov/consprod/consprod.htm – Provides information about the ARB consumer products program and allows you to sign up for a list server, which will send you an e-mail notice when new information is posted to the consumer products website.
- **Reactivity** – www.arb.ca.gov/research/reactivity/reactivity.htm – Visit this site for background, current activities, and the latest information concerning reactivity at the ARB.
- **ARB** – www.arb.ca.gov – ARB homepage with links to all programs, regulatory activities, and much more.
- **Air-related Laws and Regulations** – www.arb.ca.gov/html/lawsregs.htm – This site provides links to federal, state, and district laws and regulations.

ARB Staff Contacts

For general questions or other requests please contact the following staff. For category-specific questions, see page 37 of this packet for the specific staff contact.

Name	Phone	Email
David Mallory, Manager	916-445-8316	dmallory@arb.ca.gov
Michelle Byars, Survey Co-lead	916-324-9551	mbyars@arb.ca.gov
Amy Livingston, Survey Co-lead	916-324-9549	alivings@arb.ca.gov

PART IV: Forms & Instructions

CONFIDENTIAL INFORMATION FORM

In accordance with Title 17, California Code of Regulations (CCR), Sections 91000-91022, and the California Public Records Act (Government Code Section 6250 et seq.), the information that a company provides to the Air Resources Board (ARB) may be released (1) to the public upon request, except trade secrets which are not emissions data or other information which is exempt from disclosure or the disclosure of which is prohibited by law; and (2) to the Federal Environmental Protection Agency (EPA), which protects trade secrets as provided in Section 114(c) of the Clean Air Act and amendments thereto (42 USC 7401 et seq.) and in federal regulation; and (3) to other public agencies provided that those agencies preserve the protections afforded information which is identified as a trade secret, or otherwise exempt from disclosure by law (Section 39660(e)).

Trade secrets, as defined in Government Code Section 6254.7, are not public records and therefore will not be released to the public. However, the California Public Records Act states that air pollution emission data are always public records, even if the data comes within the definition of trade secrets. However, the information used to calculate air pollution emissions data is not "emissions data", and will not be released to the public if it is a trade secret.

Identifying Confidential Information

If any company believes that any of the information it may provide is a trade secret or otherwise exempt from disclosure under any other provision of law, it **must identify the confidential information as such at the time of submission** to the ARB and must provide the name, address, and telephone number of the individual to be consulted. If the ARB receives a request for disclosure or seeks to disclose the data claimed to be confidential, ARB may ask the company to provide documentation of its claim of trade secret or exemption at a later date. Data identified as confidential will not be disclosed unless the ARB determines, in accordance with the above referenced regulations, that the data do not qualify for a legal exemption from disclosure. The regulations establish substantial safeguards before any such disclosure.

To designate any information contained in your survey data as "confidential information", provide the data requested below and return this page with your completed survey forms.

1. In accordance with the provisions of Title 17, California Code of Regulations, Sections 91000-91022, and the California Public Records Act (Government Code Sections 6250 seq.),
(enter company name): _____
declares that only those portions specifically identified (by checking the upper left-hand corner confidentiality box on each form) and submitted in response to the California Air Resources Board's information request on the survey are confidential "trade secret" information, and requests that it be protected as such from public disclosure.

2. We have designated confidential information by page for each survey data form submitted by checking (✓) the upper left-hand corner confidentiality box.

Name: _____ Signature: _____ Date: _____

3. In the case that there are inquiries pertaining to this confidential information, the ARB should contact the following person:

Name: _____ Title: _____

Phone: _____ Email: _____

Company Address: _____



FORM 1 - Responsible Party Information

(Instructions for completing FORM 1: See back side)

Check (✓) if Confidential

<p>1. Company Name: _____</p> <p>Division Name(s): _____</p> <p>Mailing Address: _____</p> <p>City: _____ State: _____ Zip: _____</p>	<p>2. Parent Company Name (if applicable): _____</p> <p>Mailing Address: _____</p> <p>City: _____ State: _____ Zip: _____</p> <p>3. Contact Person: _____ Phone: _____ Fax: _____</p> <p>Title: _____</p>	<p>5. Number of products: (enter total number of products and/or product groups submitted)</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>																
<p>4. NAICS Code(s): (see Attachment C for common codes)</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%; border: 1px solid black; height: 20px;"></td> <td style="width:20%; border: 1px solid black; height: 20px;"></td> <td style="width:20%; border: 1px solid black; height: 20px;"></td> <td style="width:20%; border: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </table>									<p>8. Employees For Calendar Year 2001</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; border: 1px solid black; height: 20px;"></td> <td style="width:50%; border: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </table>					<p>9. Contract Employees For Calendar Year 2001</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; border: 1px solid black; height: 20px;"></td> <td style="width:50%; border: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </table>				
<p>6. Type of Business check (✓) all that apply</p> <ul style="list-style-type: none"> <input type="checkbox"/> Manufacturer/Marketer <input type="checkbox"/> Distributor <input type="checkbox"/> Retailer <input type="checkbox"/> Contract Packager <input type="checkbox"/> Other (specify): _____ 	<p>7. Gross Annual Receipts For Calendar Year 2001</p> <p>check (✓) one</p> <ul style="list-style-type: none"> <input type="checkbox"/> Less than \$250,000 <input type="checkbox"/> Between \$250,000 and \$1 million <input type="checkbox"/> Between \$1 million and \$10 million <input type="checkbox"/> Between \$10 million and \$50 million <input type="checkbox"/> Between \$50 million and \$100 million <input type="checkbox"/> Between \$100 million and \$1 billion <input type="checkbox"/> More than \$1 billion 	<p>8. Employees For Calendar Year 2001</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; border: 1px solid black; height: 20px;"></td> <td style="width:50%; border: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </table>																
<p>10. Comments:</p> <p>_____</p> <p>_____</p>	<p>9. Contract Employees For Calendar Year 2001</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; border: 1px solid black; height: 20px;"></td> <td style="width:50%; border: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </table>					<p>5. Number of products: (enter total number of products and/or product groups submitted)</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>												

11. Certification: I am an authorized company representative and hereby certify that all information entered by my company on FORM 1, FORM 2, FORM 3(s), Supplement(s) to FORM 3 (if applicable), and FORM 4(s) is complete and accurate to the best of my knowledge and belief.

Name: _____ **Title:** _____

Signature: _____ **Date:** _____

Instructions: FORM 1 – Responsible Party Information

The information requested on FORM 1 will assist the California Air Resources Board in characterizing the types of businesses that are included in the survey as required by State law. Complete and submit one FORM 1 for each *responsible party*. Do not submit a separate FORM 1 for each product being submitted.

NOTE: Throughout the survey, when the term "company" is used, "company, firm, or establishment" is implied.

Confidential Information (In the upper left corner of all forms):

The *responsible party* should check the box if information on this form is confidential. This information will be handled as described on page 10.

Check (✓) if Confidential

- Company Name:** Enter the name of the company that is the *responsible party* for the product(s) being submitted with this FORM 1.

For the purposes of this survey, the "responsible party" means the company, firm, or establishment listed on the label of a consumer or commercial product covered by this survey (see survey categories, page 78) that was sold with intention for use in California during Calendar Year 2001. If the label lists two companies, firms, or establishments, the responsible party is the party that the product was "manufactured for" or "distributed by," as noted on the label.

Division Name(s): If the respondent to the survey is representing a division of the company, please enter the name of the division.

Mailing Address: Enter the complete mailing address for the company listed above.

- Parent Company Name:** If the company is not *independently owned*, enter the name of the *parent company*.

Mailing Address: Enter the complete mailing address for the *parent company* listed above.

- Contact Person:** Enter the name, title, telephone number, fax number, and email address for the person to be contacted by ARB staff if clarifications are needed for the survey information submitted.

- NAICS Code(s) (North American Industry Classification System):** Enter the 2002 NAICS code(s) that apply to the *responsible party* for the products covered by this survey. Attachment C, page 41, provides a list of common 2002 NAICS codes related to consumer and commercial products. If none of the codes provided apply, please enter the company's primary NAICS code(s). For more information about NAICS codes, visit: <http://www.census.gov/epcd/www/naics.html>

- Number of products:** Count and enter the total number of products and/or *product groups* that your company is submitting for this survey. The Product Tracking # boxes, like the one shown here and those located in the upper right corner of FORMS 3, 4 and the Supplement to FORM 3 (if applicable), are used to track the number of products or *product groups* you have, and are also used to associate related forms. Because Product Tracking #s are entered sequentially, as described on page 12, the final number should indicate the total number of products submitted.

Product Tracking #:

- Type of Business:** Check (✓) each box that describes the type of business conducted by the *responsible party*. See Related Definitions, page 85, for business type definitions.

- Gross Annual Receipts:** Check (✓) the box that identifies the gross annual receipts generated by the *responsible party* worldwide for Calendar Year 2001. This means the total income of the company before expenses are deducted.

- Employees:** Check (✓) the box that indicates the total number of employees (including part-time and temporary staff, not including *contract employees* listed in question 9) for the *responsible party* "Worldwide" (including California), and also for "California Only."

- Contract Employees:** Check (✓) the box that indicates the total number of *contract employees* for the *responsible party* "Worldwide" (including California), and also for "California Only."

- Comments:** As needed, provide comments to clarify any piece of information you have listed on this form.

- Certification:** Please have an authorized company representative certify that all information entered by their company on FORM 1, FORM 2, FORM 3(s), Supplement(s) to FORM 3 (if applicable), and FORM 4(s) is complete and accurate.

Check (✓) if Confidential

FORM 2 - Source of Ingredient Information
(Instructions for completing FORM 2: See back side)

Will your company be using a *formulator*? Indicate the source of ingredient information; Check (✓) "no" or "yes" and complete the blanks.

No, my company, _____, the *responsible party*, will not be using a *formulator* to complete ingredient information for any product or *product group* submitted for this survey.

-OR-

Yes, my company, _____, the *responsible party*, will be using a *formulator* to complete ingredient information for one or more products submitted for this survey. List *formulator* contact information below; photocopy sheet as needed.

formulator

Product Tracking Number(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Formulator Company Name:	_____																
Address:	_____																
City:	_____					State:	_____			Zip:	_____						
Title:	_____																
Phone:	_____																
Fax:	_____																
Email:	_____																
Formulator Contact Name:	_____																

formulator

Product Tracking Number(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Formulator Company Name:	_____																
Address:	_____																
City:	_____					State:	_____			Zip:	_____						
Title:	_____																
Phone:	_____																
Fax:	_____																
Email:	_____																
Formulator Contact Name:	_____																

formulator

Product Tracking Number(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Formulator Company Name:	_____																
Address:	_____																
City:	_____					State:	_____			Zip:	_____						
Title:	_____																
Phone:	_____																
Fax:	_____																
Email:	_____																
Formulator Contact Name:	_____																

Instructions: FORM 2 – Source of Ingredient Information

Will your company be using a *formulator*?

No.

Check (✓) this box if...

your company, the *responsible party*, will not be using a *formulator* to submit ingredient information on behalf of your company for any product submitted for this survey.

OR

Yes.

Check (✓) this box if...

for one or more of the products, your company, the *responsible party*, will be using a *formulator* to submit ingredient information on behalf of your company.

Then:

- Submit this form to ARB with the other survey forms (you do not need to complete the lower portion).
- Complete and submit all FORM 4s directly to ARB with all ingredient information filled out.

Then:

- Complete one contact information box on the bottom portion of this form for each *formulator* that will submit ingredient information on behalf of your company.

Notes:

- You only need to list a *formulator* once; if a *formulator* will send ingredient information for multiple products or *product groups*, list all the appropriate product tracking numbers at the top of the corresponding *formulator* contact information box. See page 12 and the instructions for FORM 3 for more information about product tracking numbers.
- If you will be using more than three *formulators*, photocopy this form as necessary.
- If multiple *formulators* were used for a product or *product group* during Calendar Year 2001, choose a representative *formulator* to complete ingredient information, and list that *formulator* on this form.

- Submit this form to ARB with the other survey forms.
- Enter the Product Tracking # on each FORM 4 and complete Section A before forwarding this form to the *formulator*.
- As soon as possible, forward each FORM 4 (along with a blank copy of the survey packet) to the *formulator* who will be completing Section B, the ingredient information.

Note:

- The *formulator* needs to mail the FORM 4(s) directly to ARB.

FORM 3 - Product Information
(Instructions for completing FORM 3: See back side)

Check (✓) if Confidential

Product Tracking #: _____

A. RESPONSIBLE PARTY & PRODUCT INFORMATION

1. Company Name: _____
 Contact Person: _____
 Title: _____
 Phone: _____ Email: _____

2. Full Product Name: _____

3. Product Form : Aerosol Product Pump Spray Other (specify): _____
 Foam Gel
 Liquid Solid

4. Customer Type : Household Commercial/Institutional Industrial (must = 100)
 check (✓) all that apply: _____ % + _____ % + _____ % = _____ %

B. ADDITIONAL PRODUCT INFORMATION

1. ARB Category Code(s) _____
 Primary Category Code: _____ *If applicable, Additional Category Code(s):* _____

2. Relation to Product check (✓) all that apply
 Manufacturer/Marketer
 Distributor
 Retailer
 Contract Packager
 Other (specify): _____

3. Product Groups Does this product represent a product group? yes no
If yes, list the individual products on the "Supplement to FORM 3" and attach it to this form.
Also specify which attribute(s) were used to group the products:
 Color Fragrance Size

4. Dilution Ratios Is this product sold as a concentrate? yes no
If yes, complete the dilution ratio table below.
Also specify the diluent:

Dilution	Product amount	units	Diluent amount	units
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

5. Product Type Is this a per care product? yes no
 Is this a FIFRA registered product? yes no
 Is this product regulated by FDA as an OTC drug? yes no

6. California Sales Data (Fill out either Option 1 or Option 2)

Option 1 - Direct Mass
 Enter the total pounds of this product or combined sales of this product group that was sold with intention for use in California during Calendar Year 2001: _____ lbs.

Option 2 - Calculated Mass
 Fill in the table to the right.
Note: Provide either density or specific gravity only if product units are reported in volume units, such as fluid ounces.

Product Size	Size Units	No. Sold in CA	Density (units) - or - Specific Gravity
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____

7. Comments: _____

C. LABEL

Submit one entire representative label for this product or product group. When submitting by hardcopy, attach the label to this form (see instructions).

Instructions: FORM 3 - Product Information

This form requests general product information, sales data, and labels for the products being reported. Complete and submit one FORM 3 for each product or product group.

Confidential Information (in the upper left corner of all forms): The responsible party should check the box if the information on this form is confidential. This information will be handled as described on page 10.

Check (✓) if Confidential

Product Tracking # (in the upper right corner of Forms 3 and 4): Assign a single, product tracking number for each product or product group. Enter this number into the box. For each product or product group submitted, this number should be the same on both FORM 3 and FORM 4 and also on the corresponding label. See page 12 for more information on assigning product tracking numbers.

Product Tracking #:

A. RESPONSIBLE PARTY & PRODUCT INFORMATION

For both FORMS 3 and 4, the questions in this section pertain to the company that is considered the *responsible party*, as defined on page 92. The information in this section must be identical to Section A of FORM 4. For those completing the survey electronically, Section A will be copied automatically into FORM 4.

1. Company Name: Enter the name of the company that is the *responsible party* for the product listed on this form.

Contact Person/Title/Phone/Email: Enter the name, title, telephone number, and email address for the person to be contacted by ARB staff if clarifications are needed about the product information submitted.

2. Full Product Name: Enter the full product name as shown on the *principal display panel*.

Notes:

Product Groups - If this is a *product group*, name the most representative product for which the ingredients will be submitted. See page 12 for the criteria that define a *product group*.

Multicomponent Kit Products - "Kit" components must be reported separately, according to category descriptions. Include the component name in the product name.

For example: "ACME French Manicure Kit" includes "Base/Top Coat", "White Tips Polish", and "Natural Polish". Each of these three components must be reported since they fit a category description in this survey. The full product name for the natural polish would be "ACME French Manicure Kit; Natural Polish".

Continued, next column...

3. Product Form: Check only one box that describes the form of this product. If the product is sold in another form, it is considered a separate product and must be reported under a different product tracking number.

Aerosol Product - A pressurized spray system that dispenses product ingredients by means of a propellant or mechanically induced force. For the purposes of this survey, "Aerosol Product" does not include *Pump Spray* or *Foam*.

Foam - A substance that upon being dispensed from its container or upon contact with a surface, or as a result of exposure to body heat or the atmosphere, is comprised of two phases: a dispersed gas or vapor phase, and a continuous liquid phase, therein creating a mass of gaseous cells that is separated by thin films of liquid and formed by the juxtaposition of bubbles. "Foam" does not include substances that become foam solely from shearing action after being dispensed, such as rubbing the product on the skin or other agitation.

Liquid - A substance or mixture of substances, including those impregnated into a wipe, which is capable of a visually detectable flow as determined under ASTM D-4359-90. "Liquid" does not include powders or other materials that are composed entirely of solid particles.

Pump Spray - A packaging system in which the product ingredients within the container are not under pressure and in which the product is expelled only while a pumping action is applied to a button, trigger or other actuator.

Gel - A substance or mixture of substances that, after being dispensed or as used, is a colloid in which the dispersed phase has combined with the continuous phase to produce a semisolid material, such as jelly.

Solid - A whole or subdivided substance (such as the particles comprising a powder), or a mixture of substances, that after being dispensed or as used, is not capable of visually detectable flow as determined under ASTM D-4359-90.

Other - A product form other than the forms listed above; specify the form.

4. Customer Type: Check all boxes that indicate the customer type for which this product is intended. Also, indicate the percentage of each customer type in the blanks provided. The percentages, when added, must total 100%.

B. ADDITIONAL PRODUCT INFORMATION

1. ARB Category Code(s): Enter the appropriate two-digit category code, as chosen from the list on page 37; category codes are also listed with full descriptions on page 78. The primary category code should be the chosen according to the description that *best* describes your product according to the product's *principal display panel*. List additional category codes *only* for products that fit into more than one survey category, according to their *principal display panel*; do not list category codes for uses *not* displayed on this panel. See "Selecting Category Codes" on page 12 for more details and an example.

(Continued) Instructions: FORM 3 – Product Information

2. Relation to Product: Indicate whether you are the *manufacturer/marketer, distributor, retailer, and/or contract packager* of this product. If these descriptions do not fit your relationship(s) to the product, check the "other" box and specify another relationship. Check all boxes that apply. *For example, many companies manufacture and sell their products in their own retail locations, in which case, both the "manufacturer" and "retailer" boxes should be checked.*

3. Product Groups: Indicate by checking "yes" or "no" if this product represents a *product group*. See page 12 for the criteria that define a *product group*. If "yes," indicate how the products vary from each other: by color, fragrance, and/or size. Additionally, for the *product group*, list the name, size, color differences, and/or fragrance differences of each product that comprises the group as indicated on the "Supplement to FORM 3" provided at the end of these FORM 3 instructions. Attach the supplement to this form.

4. Dilution Ratios: Indicate by checking "yes" or "no" if this product is sold as a *concentrate* that requires dilution according to the product label. If "yes," enter the *diluent* and complete the dilution table for the minimum and maximum dilutions specified on the label. Do not use arbitrary terms such as "scoop", specify appropriate units of measure, such as 0.25 cups. However, ratios are acceptable.

For example: on the label, a concentrated hair care product recommends diluting 1 part product to 1 part water for "extra" hold and 1 part product to 4 parts water for "light" hold. So, the diluent is water and the table would read as shown.

Dilution	Product		Diluent	
	amount	units	amount	units
Min.	1	part	1	part
Max.	1	part	4	part

5. Product Type: Indicate by checking "yes" or "no" if this product is: a *per care product*, a *FIFRA* registered product, or regulated by the *Food & Drug Administration (FDA)* as an *Over-the-Counter (OTC)* drug (as established by the *FDA*). Prescription-only drugs are not covered by this survey and do not need to be reported.

6. California Sales Data: Provide the sales information about this product (or combined sales of this *product group*) for Calendar Year 2001. Answer this question by using *either* Option 1 or Option 2.

Notes:

Estimating California Sales. If California direct sales data are not available, sales may be estimated by prorating national or regional sales figures by population using the population estimates provided in Attachment D, page 45.

Continued, next column...

Product Groups: If this is a *product group*, combine the sales of the individual products from the entire *product group*.

Option 1 – Direct Mass: Calculate the total net pounds of product sold for with intention for use in California during Calendar Year 2001, less container/packaging, and enter it into the space provided.

Option 2 – Calculated Mass: List each size of this product that is sold with intention for use in California during Calendar Year 2001, then, for each of those, report the unit size (for example, weight ounces or fluid ounces), and the number sold during 2001. If the units are listed by volume units, such as fluid ounces, provide either the density, indicating the units (pounds/gal or grams/milliliter), or provide the specific gravity.

7. Comments: Provide any comments that will help us understand your product or how you have filled out the survey for this product.

C. LABEL

Submit one entire product label for each FORM 3 (therefore, only one for each product or *product group*). Send a clear and legible photocopy, hard copy of a scanned image, or an original label. Submit a representative label for the product or *product group*. Include the entire label as defined here:

Label—means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product or consumer product package, for the purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.

Submitting a hardcopy – write the appropriate Product Tracking # on the label, according to the number listed on all corresponding forms for that product. Attach the label (or photocopy of the label) to the corresponding FORM 3 for the product or *product group*.

Submitting an electronic copy—submit the labels via PDF (Adobe Acrobat) image file, or other common file type, and name each file according to the Product Tracking # listed on all corresponding forms for that product.

For example, when submitting the label for Product Tracking # "5," the Acrobat file should be named: product5.pdf.

Note:

If you have any questions about label submission or electronic file type, contact ARB staff, see page 37.

Check (✓) if Confidential

FORM 4 - Ingredient Information
(Instructions for completing FORM 4: See back side)

Product Tracking #:

A. RESPONSIBLE PARTY & PRODUCT INFORMATION - To be completed by the responsible party.

<p>1. Company Name: _____</p> <p>Contact Person: _____</p> <p>Title: _____</p> <p>Phone: _____</p> <p>Email: _____</p>	<p>2. Full Product Name: _____</p> <p>3. Product Form : <input type="checkbox"/> Aerosol Product <input type="checkbox"/> Pump Spray <input type="checkbox"/> Other (specify): <input checked="" type="checkbox"/> one <input type="checkbox"/> Foam <input type="checkbox"/> Gel <input type="checkbox"/> Liquid <input type="checkbox"/> Solid</p> <p>4. Customer Type : <input type="checkbox"/> Household <input type="checkbox"/> Commercial/Institutional <input type="checkbox"/> Industrial (must = 100) check (✓) all that apply : % + % + % + % =</p>
--	--

B. INGREDIENTS - To be completed by the company that holds the ingredient information (either the responsible party or formulator).

1. Specific Ingredient Table: Indicate the weight percent (Wt. %) of the following compounds that are contained in the product.

Compound	1,1,1-Trichloroethane	Parachlorobenzotrifluoride	Menthol	Perchloroethylene	Paradichlorobenzene	Naphthalene	Nitrogen	Wt. % Subtotal
Wt. % :	_____	_____	_____	_____	_____	_____	_____	= _____ A
Compound :	Methylene Chloride	Volatile Methyl Siloxanes	HF-C-152A	Acetone	Methyl Acetate	Carbon Dioxide	Water	Wt. % Subtotal
Wt. % :	_____	_____	_____	_____	_____	_____	_____	= _____ B

2. VOC Speciation Table: List all VOCs and all LVP-VOC solvents that comprise at least 0.1 Wt. %. Do not list any exempt compounds, non-solvent LVP-VOCs, inorganics, or fragrances; group these items and any VOCs that individually comprise less than 0.1 Wt. %, as indicated below in the line-item entries.

	Chemical Name	CAS Number	Trade Name & Manufacturer ¹	Bin # ¹	Weight %
1					
2					
3					
4					
5					
6					
7					
8					

..... If necessary, list additional ingredients on a separate page; enter the weight percent subtotal from that page on this line.....

Group all other Exempts & non-solvent LVP-VOCs (provide total Wt. %) = _____	Group other Inorganics (provide total Wt. %) = _____
Group all VOCs that are each less than 0.1 Wt. % (provide total Wt. %) = _____	Group all Fragrances (provide total Wt. %) = _____
Weight % Subtotal = _____	Weight % Subtotal = _____
Grand Total (A + B + C must = 100) = _____	Grand Total (A + B + C must = 100) = _____

3. Contact Information (if different from above):

Completed By: _____ Phone: _____

Title: _____

Formulating Company: _____ Date: _____

¹Completion of these columns is required only if the ingredient is a hydrocarbon solvent, such as mineral spirits, otherwise these columns are optional. See instructions for details.

Instructions: FORM 4 -- Ingredient Information

This form requests ingredient information for the products being reported. If the *responsible party* holds all ingredient information, then that company will complete both Sections A and B of this form. If the *responsible party* does not hold the ingredient information, this form will be completed by two companies: the *responsible party* will complete Section A and the *formulator* will complete Section B. See page 10 for details. One completed FORM 4 must be submitted to ARB for each product or product group.

Confidential Information (in the upper left corner of All Forms):

The *responsible party* should check the box if the information on this form is confidential. This information will be handled as described on page 10.

Check (✓) if Confidential <input type="checkbox"/>
--

Product Tracking # (in the upper right corner of Forms 3 and 4): For the same product or product group being submitted, this number should be identical to the number that was entered into the box on FORM 3. See page 12 for more information on assigning product tracking numbers.

Product Tracking #:

A. RESPONSIBLE PARTY & PRODUCT INFORMATION

The questions in this section pertain to the company that is considered the *responsible party*, as defined on page 92. *Note:* the information in this section is identical to Section A of FORM 3. See the instructions on FORM 3 for more information. For those completing the survey electronically, this section will be completed automatically.

B. INGREDIENTS

This section gathers ingredient information about this product. If multiple formulas were used for this product during Calendar Year 2001, the most recent formula should be reported. If the ingredients varied because they were supplied by different vendors, report an appropriately representative vendor. Every entry should be reported to the nearest 0.1 percent.

- 1. Specific Ingredient Table:** If the product contains any of the compounds listed, enter the weight percent to the nearest 0.1% as indicated for each of those compounds (1,1,1-Trichloroethane, Parachlorobenzotrifluoride, Perchloroethylene, Menthol, Paradichlorobenzene, Naphthalene, Nitrogen, Methylene Chloride, Volatile Methyl Siloxanes, HFC-152a, Acetone, Methyl Acetate, Carbon Dioxide, Water).

Subtotals: Solely for the purpose of making the Grand Total easier to calculate, subtotal the weight percent (Wt. %) of each line as indicated at the right (Subtotal A and Subtotal B).

Continued, next column...

2. VOC Specification Table: In the table, list all *Volatile Organic Compounds* (VOCs), including all *Low Vapor Pressure Volatile Organic Compound* (LVP-VOC) solvents that comprise at least 0.1 weight percent (Wt. %) in the product. The "exempt compounds", "non-solvent LVP-VOCs", "inorganics", "fragrances", and "VOCs that individually comprise less than 0.1 Wt. %" will be grouped in line-item entries as described below in the "Additionally Required Line-Item Entries" section of the instructions.

See definition section, page 85, for definition of VOC, LVP-VOC, and *Hydrocarbon Solvent*.

Required for each VOC listed:

Chemical Name: Enter the generic or chemical name for the compound. If the chemical name is unknown, the trade name may be listed.

CAS Number: Enter the Chemical Abstract Service (CAS) number for the compound or mixture according to your supplier.

For reference only, a CAS list is provided in Attachment E on page 47. Before referring to this list, please note the condition that has been placed on the list. Use this list *only* if you are unable to obtain the CAS number of the ingredient from your supplier.

Weight Percent: Enter the percent by weight to the nearest 0.1% of the ingredient in the final product. If the ingredient is a mixture of known components, list the ingredients separately with their individual weight percentages in the final product.

Note:

If the product is sold as a *concentrate*, list the Wt. % as sold, undiluted.

(Continued) Instructions: FORM 4 – Ingredient Information

Required For each Hydrocarbon Solvent: These columns are *required* for hydrocarbon solvents, however, the columns may be filled out for other VOCs.

Trade Name: Manufacturer's proprietary name for the compound or mixture.

Manufacturer Name: Enter the name of the manufacturer for the compound or mixture.

Bin #: List the bin number for the compound or mixture. Please contact your manufacturer if you do not know the Bin number.

For reference only, see Attachment F on page 61 for some specifications of Bin Numbers.

Additionally Required Line-Item Entries:

Enter the aggregated weight percent, as indicated, of those ingredients not listed in either Section B, item 1, "Specific Ingredient Table" or the VOC specification table in this section.

Note: Once complete, the "Grand Total" weight percent *must equal 100*.

- If there are more than eight VOC ingredients in this product, photocopy this table and continue to specify the compounds as shown. Attach this photocopy to FORM 4 and enter a weight percent (Wt. %) subtotal from that page in the space indicated.

Note: The electronic version will allow as many entries as needed on the specific ingredient table.

- Aggregate the remaining **exempt compounds and non-solvent LVPs** and enter that total in the space indicated.

For example, these compounds may include, but are not limited to resins, wax, and polyethylene glycol.

- Aggregate all inorganic compounds, except nitrogen and water, and enter that total in the space indicated.

For example, these compounds may include, but are not limited to, ammonia, clay, hydrogen peroxide, and metallic salts.

- Aggregate fragrances and enter that total in the space indicated. *Note:* d-limonene, l-limonene, and pine oils must be specified in the VOC specification table above.

- Aggregate all compounds for which *each* individual compound comprises less than 0.1 weight percent of the product and enter that total in the space indicated.

Continued, next column...

Subtotal C: Sum the weight percentages for all ingredients listed in this table (including the line-items entries). The electronic version will automatically calculate the subtotals, as well as the grand total.

Grand Total: The sum of each subtotal A, B, and C *must equal 100 percent*. If this value does not sum to 100, check the component percentages for an error. The electronic version will automatically calculate the subtotals, as well as the grand total.

3. **Contact Information:** The information requested in this section is in reference to the person/company that filled out Section B, the ingredients section. If this information is the same as that in Section A, then this section may be left blank.

Completed By/ Title/ Phone/Email: Enter the name, title, telephone number, and email address for the person to be contacted by the ARB if clarifications are needed about the ingredient information being submitted.

Formulating Company/Date: Enter the name of the company that filled out this ingredient section and the date it was completed.

For questions about filling out this or other forms, please contact ARB staff, see page 37.

PART V: Attachments for Reference

ATTACHMENT A: ARB CATEGORY CODES & STAFF CONTACTS

For Information Contact:		ARB Contact	Email @arb.ca.gov	Phone area code: 916
Manager		David Mallory	dmallory	445-8316
Survey Co-lead		Michelle Byars	mbyars	324-9551
Survey Co-lead		Amy Livingston	alivings	324-9549
Code	Survey Category *	ARB Contact	Email @arb.ca.gov	Phone area code: 916
01	Adhesive Remover	Nicholas Berger	nberger	322-2362
02	Anti-Static Product	Trish Villegas	tvillega	323-9688
03	Body Wipes	David Julian	djulian	327-1503
04	Contact Adhesive	Tina Najjar	tnajjar	323-6501
05	Electronic Cleaner	Femi Olaluwoye	oolaluwo	327-0647
06	Fabric or Leather Waterproofer	Evan Wong	ewwong	322-3943
07	Footwear Care Product	Evan Wong	ewwong	322-3943
08	General Purpose Degreaser	Nicholas Berger	nberger	322-2362
09	Graffiti Remover	Femi Olaluwoye	oolaluwo	327-0647
10	Insect Repellent: non-aerosol	Trish Villegas	tvillega	323-9688
11	Jewelry Cleaner	David Julian	djulian	327-1503
12	Leather Care Product	Evan Wong	ewwong	322-3943
13	Multi-purpose Remover	Nicholas Berger	nberger	322-2362
14	Packaged Solvent	Nicholas Berger	nberger	322-2362
15	Personal Foaming Product	Michelle Byars	mbyars	324-9551
16	Personal Hygiene Product	Michelle Byars	mbyars	324-9551
17	Shaving Gel	Zuzana Vona	zvona	327-1507
18	Solvent Parts Cleaner: non-aerosol	Femi Olaluwoye	oolaluwo	327-0647
19	Wood Cleaner	David Julian	djulian	327-1503
	Fabric Care:	Trish Villegas	tvillega	323-9688
20	Fabric Refresher			
21	In-dryer Fabric Care			
22	Wrinkle-releasing Spray			
	Hair Care:	Tina Najjar	tnajjar	323-6501
23	Bleach/Lightener			
24	Conditioner			
25	Hair Color Product: Temporary			
26	Hair Color Product: Semi- permanent			
27	Hair Color Product: Demi- permanent			
28	Hair Color Product: Permanent			

* See page 78 for full description of product categories.

Continued...

ATTACHMENT A

Code	Survey Category *	ARB Contact	Email @arb.ca.gov	Phone area code: 916
	Hair Care (cont'd):	Tina Najjar	tnajjar	323-6501
29	Hair Growth Retardant/Inhibitor			
30	Hair Shine			
31	Hair Styling Product: Liquid			
32	Hair Styling Product: Mousse			
33	Hair Styling Product: Semisolid			
34	Hair Styling Product: Solid			
35	Hair Styling Product: Spray			
36	Hair Tonic/Hair Restorer			
37	Shampoo			
38	Other Hair Care Products			
	Nail Care:	Amy Livingston	alivings	324-9549
39	Artificial Nail, Wrap, or Nail Glue Remover			
40	Base Coat/Undercoat			
41	Nail Polish			
42	Nail Polish Thinner			
43	Nail Product Drying Enhancer			
44	Nail Treatment Product			
45	Top Coat			
	Toilet/Urinal Care:	David Julian	djulian	327-1503
46	Toilet or Urinal Cleaner			
47	Toilet or Urinal Deodorizer			
48	Toilet/Urinal Cleaner and Deodorizer			

* See page 78 for full description of product categories.

ATTACHMENT B: STATUTE: DISCLOSURE OF PUBLIC RECORDS**Title 17 Air Resources Board
Subchapter 4. Disclosure of Public Records****Article 1. General****§ 91000. Scope and Purpose.**

This subchapter shall apply to all requests to the state board under the California Public Records Act (Government Code Section 6250 et seq.) for the disclosure of public records or for maintaining the confidentiality of data received by the state board. Written guidelines shall govern the internal review of such requests.

Note: Authority cited: Sections 39600 and 39601(a), Health and Safety Code. Reference: California Public Records Act, Chapter 3.5 (commencing with Section 6250), Division 7, Government Code.

History

1. New Subchapter 4 (Sections 91000 through 91022, not consecutive) filed 1-26-73; effective thirtieth day thereafter (Register 73, No. 4).
2. Amendment filed 9-28-73; effective thirtieth day thereafter (Register 73, No. 39).
3. Amendment of NOTE filed 3-18-77; effective thirtieth day thereafter (Register 77, No. 12).
4. Repealer and new section filed 10-5-82; effective thirtieth day thereafter (Register 82, No. 41).

§ 91001. Disclosure Policy.

It is the policy of the state board that all records not exempted from disclosure by state law shall be open for public inspection with the least possible delay and expense to the requesting party.

Note: Authority cited: Sections 39600 and 39601(a), Health and Safety Code. Reference: Section 6253, Government Code; Black Panther Party v. Kehoe (1974) 42 Cal.App.3d 645.

History

1. Amendment filed 9-28-73; effective thirtieth day thereafter (Register 73, No. 39).
2. Amendment and new NOTE filed 3-18-77; effective thirtieth day thereafter (Register 77, No. 12).
3. Repealer and new section filed 10-5-82; effective thirtieth day thereafter (Register 82, No. 41).

Article 2. Board's Request for Information**§ 91010. Request Procedure.**

The state board shall give notice to any person from whom it requests information that the information provided may be released (1) to the public upon request, except trade secrets which are not emission data or other information which is exempt from disclosure or the disclosure of which is prohibited by law, and (2) to the federal Environmental Protection Agency, which protects trade secrets as provided in Section 114(c) of the Clean Air Act and amendments thereto (42 USC 7401 et seq.) and in federal regulations.

Note: Authority cited: Sections 39600, 39601, and 39602 Health and Safety Code, Reference: Sections 39701, 41510, 41511, 41512 and 42705, Health and Safety Code; and Section 6253, Government Code.

History

1. Amendment of subsections (a) and (b) filed 9-28-73; effective thirtieth day hereafter (Register 73, No. 39).
2. Amendment of subsection (a), (b) and (c), and new NOTE, filed 3-18-77; effective thirtieth day thereafter (Register 77, No. 12).
3. Amendment filed 10-5-82; effective thirtieth day thereafter (Register 82, No. 41).
4. Editorial correction filed 5-7-84; effective thirtieth day thereafter (Register 84, No. 19).

§ 91011. Submissions of Confidential Data.

Any person submitting to the state board any records containing data claimed to be "trade secret" or otherwise exempt from disclosure under Government Code Section 6254 or 6254.7 or under other applicable provisions of law shall, at the time of submission, identify in writing the portions of the records containing such data as "confidential" and shall provide the name, address and telephone number of the individual to be contacted if the state board receives a request for disclosure of or seeks to disclose the data claimed to be confidential. Emission data shall not be identified as confidential. The state board shall not disclose data identified as confidential, except in accordance with the requirements of this subchapter or Section 39680(e) of the Health and Safety Code.

Note: Authority cited: Sections 39600 and 39601, Health and Safety Code. Reference: Sections 39660, 39701, 41500, 41511, 41512 and 42705, Health and Safety Code; Sections 6253, 6254 and 6254.7, Government Code; *Natural Resources Defense Council v. EPA*, 489 F.2d 390 (5th Cir. 1974) (6 ERC 1248); *Northern California Police Practices Project v. Craig* (1979) 90 Cal.App.3d 116; *Uribe v. Howie* (1971) 19 Cal.App.3d 194.

History

1. New section filed 10-5-82; effective thirtieth day thereafter (Register 82, No. 41. For history of former section, see Register 73, No. 39).
2. Amendment filed 7-10-84; effective thirtieth day thereafter (Register 84, No. 28).

ATTACHMENT B

Article 3. Inspection of Public Records**§ 91020. Disclosure Policy .**

History

Repealer filed 10-5-82; effective thirtieth day thereafter (Register 82, No. 41).

§ 91021. Disclosure Procedure.

Note: Authority cited: Section 39601, Health and Safety Code. Reference: Sections 6253-6257, Government Code.

History

1. Amendment of subsections (c) and (d)(3) filed 9-28-73; effective thirtieth day thereafter (Register 73, No.39).
2. Amendment and new NOTE filed 3-18-77; effective thirtieth day thereafter (Register 77, No. 12).
3. Repealer filed 10-5-82; effective thirtieth day thereafter (Register 82, No. 41).

§ 91022. Disclosure of Confidential Data.

(a) This section shall apply to all data in the custody of the state board

(1) designated "trade secret" prior to the adoption of this subchapter,

(2) considered by the state board or identified by the person who submitted the data as confidential pursuant to this subchapter, or

(3) received from a federal, state or local agency, including an air pollution control district, with a confidential designation, subject to the following exceptions:

(A) Except for the time limits specifically provided in subsection (b), only subsections (c) and (d) of this section shall apply to information submitted pursuant to Health and Safety Code Section 39660(e).

(B) Appropriate portions of an application for approval, accreditation, or certification of a motor vehicle emission control device or system shall be kept confidential until such time as the approval, accreditation, or certification is granted, at which time the application (except for trade secret data) shall become a public record, except that estimates of sales volume of new model vehicles contained in an application shall be kept confidential for the model year, and then shall become public records. If an application is denied, it shall continue to be confidential but shall be subject to the provisions of this section.

(C) If disclosure of the data obtained after August 9, 1984 from a state or local agency subject to the provisions of the Public Records Act is sought, the state board shall request that the agency which provided the data determine whether it is confidential. The state board shall request that it be notified of the agency's determination within ten days. The state board shall not release the data if the agency determines that it is confidential and so notifies that state board; provided, however, that the data may be released with the consent of the person who submitted it to the agency from which it was obtained by the state board.

(b) Upon receipt of a request from a member of the public that the state board disclose data claimed to be confidential of if the state board itself seeks to disclose such data, the state board shall inform the individual designated pursuant to Section 91011 by telephone and by mail that disclosure of the data is sought. The person claiming confidentiality shall file with the state board documentation in support of the claim of confidentiality. The documentation must be received within five (5) days from the date of the telephone contact or of receipt of the mailed notice, whichever first occurs. In the case of information submitted pursuant to Health and Safety Code Section 39660(e), the documentation must be received within 30 days of the date notice was mailed pursuant to that section. The deadlines for filing the documentation may be extended by the state board upon a showing of good cause made within the deadline specified for receipt of the documentation.

(c) The documentation submitted in support of the claim of confidentiality shall include the following information:

(1) the statutory provision(s) under which the claim of confidentiality is asserted;

(2) a specific description of the data claimed to be entitled to confidential treatment;

(3) the period of time for which confidential treatment is requested;

(4) the extent to which the data has been disclosed to others and whether its confidentiality has been maintained or its release restricted;

(5) confidentiality determinations, if any, made by other public agencies as to all or part of the data and a copy of any such determinations, if available; and

(6) whether it is asserted that the data is used to fabricate, produce, or compound an article of trade or to provide a service and that the disclosure of the data would result in harmful effects on the person's competitive position, and, if so, the nature and extent of such anticipated harmful effects.

(d) Documentation, as specified in subsection (c), in support of a claim of confidentiality may be submitted to the state board prior to the time disclosure is sought.

(e) The state board shall, within ten (10) days of the date it sought to disclose the data or received the request for disclosure, or within 20 days of that date if the state board determines that there are unusual circumstances as defined in Government Code Section 6256.1, review the request, if any, and supporting documentation, if received within the time limits specified in subsection (b) above, including any extension granted, and determine whether the data is entitled to confidential treatment pursuant to Government Code Section 6254, 6255 or 6254.7 or other applicable provisions of law and shall either:

(1) decline to disclose the data and, if a request was received, provide to the person making the request and to the person claiming the data is confidential a justification for the determination pursuant to Government Code Section 6255; or

(2) provide written notice to the person claiming the data is confidential and, if a request was received, to the person requesting the data that it has determined that the data is subject to disclosure, that it proposes to disclose the data, and that the data shall be released 21 days after receipt of the notice by the person claiming confidentiality, unless the state board is restrained from so doing by a court of competent jurisdiction. The state board shall release the data in accordance with the terms of the notice unless so restrained.

(f) Should judicial review be sought of a determination issued in accordance with subsection (e), either the person requesting data or the person claiming confidentiality, as appropriate, may be made a party to the litigation to justify the determination.

NOTE: Authority cited: Section 39601, Health and Safety Code. Reference: Sections 6253, 6254, 6254.7, 6255, 6256, 6256.1, 6258 and 6259, Government Code.

HISTORY

1. Amendment of subsections (a) and (b) filed 9-28-73; effective thirtieth day thereafter (Register 73, No. 39).
2. Amendment and new NOTE filed 3-18-77; effective thirtieth day thereafter (Register 77, No. 12).
3. Amendment filed 10-5-82; effective thirtieth day thereafter (Register 82, No. 41).
4. Editorial correction of subsection (a) filed 5-7-84; effective thirtieth day thereafter (Register 84, No.19).
5. Amendment filed 7-10-84; effective thirtieth day thereafter (Register 84, No. 28).

ATTACHMENT C: NAICS CODES

This list provides some of the more common North American Industry Classification System (NAICS) codes for the consumer products industry. This list is meant to be a guide to facilitate the survey process, however it is not all-inclusive. The most appropriate 2002 NAICS code(s) may not be listed here for your particular product, service, or business. You are encouraged to identify and respond with the most appropriate 2002 NAICS code(s) as provided by the U.S. Office of Management and Budget. For more information on the codes, visit the U.S. Census Bureau website: <http://www.census.gov/epcd/www/naics.html>

NAICS Code	NAICS Title	Example Products
Manufacturing		
324110	Petroleum Refineries	petroleum distillates; petroleum solvents, made in petroleum refineries; toluene, made in refineries; xylene, made in refineries
325110	Petrochemical Manufacturing	toluene, made in chemical plants; xylene, made in chemical plants
325132	Synthetic Organic Dye and Pigment Manufacturing	leather dyes and stains, synthetic; cosmetic dyes, synthetic
325191	Gum and Wood Chemical Manufacturing	wood distillates; turpentine
325320	Pesticide and Other Agricultural Chemical Manufacturing	insect repellent
325412	Pharmaceutical Preparation Manufacturing	over-the-counter drugs
325520	Adhesive Manufacturing	contact adhesives
325612	Polish and Other Sanitation Good Manufacturing	footwear polishes and cleaners; toilet/urinal deodorizers
325620	Toilet Preparation Manufacturing	shaving preparations; hair preparations (including shampoo); manicure preparations; premoistened towelettes, including wipes for babies
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	automotive chemicals; aerosol can filling on a job order or contract basis; aerosol packaging services
Wholesale Trade		
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	automotive care, maintenance, and repair supplies - general purpose degreasers; multi-purpose removers; solvent parts cleaners, leather care supplies; contact adhesives
423210	Furniture Merchant Wholesalers	leather care supplies
423420	Office Equipment Merchant Wholesalers	electronic cleaners
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	electronic cleaners
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	electrical equipment cleaners
423620	Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers	electronic cleaners; electrical equipment cleaners

ATTACHMENT C

NAICS Code	NAICS Title	Example Products
423690	Other Electronic Parts and Equipment Merchant Wholesalers	electronic cleaners
423710	Hardware Merchant Wholesalers	general purpose degreasers; multi-purpose removers; solvent parts cleaners; contact adhesives; wood cleaners; graffiti removers; adhesive removers
423840	Industrial Supplies Merchant Wholesalers	general purpose degreasers; multi-purpose removers; solvent parts cleaners; contact adhesives
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	general purpose degreasers; multi-purpose removers; solvent parts cleaners; contact adhesives; toilet/urinal deodorizers; footwear care supplies
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	footwear care supplies; leather care supplies; fabric or waterproofers; insect repellents
423920	Toy and Hobby Goods and Supplies Merchant Wholesalers	contact adhesives; electronic cleaners; electrical equipment cleaners
423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	jewelry cleaners
424120	Stationery and Office Supplies Merchant Wholesalers	electronic cleaners
424210	Drugs and Druggists' Sundries Merchant Wholesalers	over-the-counter drugs; cosmetics; toiletries
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	leather care supplies; fabric or leather waterproofers
424330	Women's, Children's, and Infants' Clothing and Accessories Merchant Wholesalers	leather care supplies; fabric or leather waterproofers
424340	Footwear Merchant Wholesalers	footwear care supplies; fabric or leather waterproofers
424690	Other Chemical and Allied Products Merchant Wholesalers	automotive and household chemicals - turpentine; contact adhesives; footwear care supplies
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	general purpose degreasers; multi-purpose removers; solvent parts cleaners
Retail Trade		
441110	New Car Dealers	automotive care products - leather care products
441210	Recreational Vehicle Dealers	vehicle care products - leather care products
441221	Motorcycle Dealers	motorcycle care products - leather care products; fabric or leather waterproofers
441222	Boat Dealers	fabric or leather waterproofers
441310	Automotive Parts and Accessories Stores	automotive care, maintenance, and repair products - general purpose degreasers; multi-purpose removers; solvent parts cleaners; leather care products; contact adhesives
442110	Furniture Stores	leather care products
443112	Radio, Television, and Other Electronics Stores	electronic cleaners
443120	Computer and Software Stores	electronic cleaners
444110	Home Centers	general purpose degreasers; multi-purpose removers; solvent parts cleaners; contact adhesives; wood cleaners; graffiti removers; adhesive removers
444130	Hardware Stores	general purpose degreasers; multi-purpose removers; solvent parts cleaners; contact adhesives; wood cleaners; graffiti removers; adhesive removers
444190	Other Building Material Dealers	contact adhesives
445110	Supermarkets and Other Grocery (except Convenience) Stores	over-the-counter drugs; hair preparations; manicure preparations; toilet articles; toilet preparations; footwear

NAICS Code	NAICS Title	Example Products
		care products; insect repellent
445120	Convenience Stores	over-the-counter drugs; toiletries
446110	Pharmacies and Drug Stores	over-the-counter drugs; hair preparations; manicure preparations; toilet articles; toilet preparations; footwear care products; insect repellent
446120	Cosmetics, Beauty Supplies, and Perfume Stores	hair care products; nail care products
446191	Food (Health) Supplement Stores	over-the-counter drugs
447110	Gasoline Stations with Convenience Stores	over-the-counter drugs; toiletries
448110	Men's Clothing Stores	leather care products; fabric or leather waterproofers
448120	Women's Clothing Stores	leather care products; fabric or leather waterproofers
448130	Children's and Infants' Clothing Stores	leather care products; fabric or leather waterproofers
448140	Family Clothing Stores	leather care products; fabric or leather waterproofers
448150	Clothing Accessories Stores	leather care products; fabric or leather waterproofers
448190	Other Clothing Stores	leather care products; fabric or leather waterproofers
448210	Shoe Stores	leather care products; fabric or leather waterproofers
448310	Jewelry Stores	jewelry cleaners
448320	Luggage and Leather Goods Stores	leather care products; fabric or leather waterproofers
451110	Sporting Goods Stores	leather care products; fabric or leather waterproofers; insect repellents
451120	Hobby, Toy, and Game Stores	contact adhesives; electronic cleaners; electrical equipment cleaners
452111	Department Stores (except Discount Department Stores)	hair care products; nail care products; footwear care products; leather care products
452112	Discount Department Stores	hair care products; nail care products; footwear care products; leather care products
452910	Warehouse Clubs and Supercenters	general purpose degreasers; multi-purpose removers; solvent parts cleaners; contact adhesives; wood cleaners
452990	All Other General Merchandise Stores	home and auto supply products
453210	Office Supplies and Stationery Stores	electronic cleaners
453910	Pet and Pet Supplies Stores	pet care products
454113	Mail-Order Houses	numerous products
Administrative Support Services		
561910	Packaging and Labeling Services	contract packagers
Other Services		
811430	Footwear and Leather Goods Repair	footwear care products; leather care products

ATTACHMENT D: U.S. RESIDENT POPULATION

If California direct sales data are not available for the FORM 3 question on California sales data, sales may be estimated by prorating national or regional sales figures by population using the population estimates provided below.

This data is current as of April 1, 2000. Total population of the United States: 281,422,000.

STATE	POPULATION	%	RANK
Alabama	4,447,000	1.6	23
Alaska	627,000	0.2	48
Arizona	5,131,000	1.8	20
Arkansas	2,673,000	0.9	33
California	33,872,000	12.0	1
Colorado	4,301,000	1.5	24
Connecticut	3,406,000	1.2	29
Delaware	784,000	0.3	45
District of Columbia	572,000	0.2	(X)
Florida	15,982,000	5.7	4
Georgia	8,186,000	2.9	10
Hawaii	1,212,000	0.4	42
Idaho	1,294,000	0.5	39
Illinois	12,419,000	4.4	5
Indiana	6,080,000	2.2	14
Iowa	2,926,000	1.0	30
Kansas	2,688,000	1.0	32
Kentucky	4,042,000	1.4	25
Louisiana	4,469,000	1.6	22
Maine	1,275,000	0.5	40
Maryland	5,296,000	1.9	19
Massachusetts	6,349,000	2.3	13
Michigan	9,938,000	3.5	8
Minnesota	4,919,000	1.7	21
Mississippi	2,845,000	1.0	31
Missouri	5,595,000	2.0	17

STATE	POPULATION	%	RANK
Montana	902,000	0.3	44
Nebraska	1,711,000	0.6	38
Nevada	1,998,000	0.7	35
New Hampshire	1,236,000	0.4	41
New Jersey	8,414,000	3.0	9
New Mexico	1,819,000	0.6	36
New York	18,976,000	6.7	3
North Carolina	8,049,000	2.9	11
North Dakota	642,000	0.2	47
Ohio	11,353,000	4.0	7
Oklahoma	3,451,000	1.2	27
Oregon	3,421,000	1.2	28
Pennsylvania	12,281,000	4.4	6
Rhode Island	1,048,000	0.4	43
South Carolina	4,012,000	1.4	26
South Dakota	755,000	0.3	46
Tennessee	5,689,000	2.0	16
Texas	20,852,000	7.4	2
Utah	2,233,000	0.8	34
Vermont	609,000	0.2	49
Virginia	7,079,000	2.5	12
Washington	5,894,000	2.1	15
West Virginia	1,808,000	0.6	37
Wisconsin	5,364,000	1.9	18
Wyoming	494,000	0.2	50

X = Not Applicable

Source: U.S. Census Bureau
<http://www.census.gov/statab/ranks/rank01.txt>

ATTACHMENT E: CHEMICAL ABSTRACT SERVICE (CAS) LIST

The following list of compounds and their associated CAS numbers were compiled from the California Air Resources Board's Mid-Term Measures 1994/1995 Consumer Products Survey and 1997 Consumer and Commercial Products Survey.

This list is provided for survey use only and should not be used for compliance purposes. The list is by no means all-inclusive, but provides a useful reference when the CAS number for a product ingredient cannot be found. It is strictly a listing of chemicals and their associated CAS numbers; it should not be used to determine if a chemical needs to be reported. Various *hydrocarbon solvents* such as mineral spirits, naphtha, and petroleum distillate can be correctly described by multiple CAS numbers; therefore, we are only providing example CAS numbers for these solvents. We encourage individuals responding to the survey to obtain the CAS number from their supplier if possible.

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier. Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
#2 Diesel Fuel	68476346
(1,1,1) Trichloroethane	71556
(MCP) Dimethylamine salt	32351705
1 - Octadecanol	112925
1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane (C4F9OCH3)	163702076
1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)	431630
1,1,1,2,3,4,4,5,5,5-Decafluoropentane (HFC-43-1Dmee)	138495428
1,1,1,2,3-Pentafluoropropane (HFC-245eb)	431312
1,1,1,2-Tetrafluoroethane (HFC-134a)	811972
1,1,1,3,3,3-Hexafluoropropane (HFC-236fa)	690391
1,1,1,3,3-Pentafluorobutane (HFC-365mfc)	406586
1,1,1,3,3-Pentafluoropropane (HFC-245fa)	460731
1,1,1-oxybisethane	60297
1,1,1-trichloroethane	79016
1,1,1-Trichloroethane (Methyl chloroform)	71556
1,1,1-Trifluoro-2,2-dichloroethane (HCFC-123)	306832
1,1,1-Trifluoroethane (HFC-143a)	420462
1,1,2,2,3-Pentafluoropropane (HFC-245ca)	679867
1,1,2,2-Tetrachloroethylene	127184
1,1,2,2-Tetrafluoroethane (HFC-134)	359353
1,1,2,3,3-Pentafluoropropane (HFC-245ea)	24270664
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	76131
1,1,2-Trichloroethylene	79016
1,1,3,3-Tetramethylcyclohexane	24770647
1,1-dichloro-1-fluoroethane (HCFC-141b)	25167888
1,1-Difluoroethane (HFC-152a)	75376
1,1-Methylene-bis-4-Isocyanobenzene)	101688

Chemical Name	CAS #
1,2 Propanediol	57556
1,2,3-Propanetriol	56815
1,2,3-Trimethylbenzene	526738
1,2,4-Trimethylbenzene	95636
1,2,4-Trimethylbenzene (pseudo-Cumene)	95636
1,2,4-Trimethylcyclohexane	2234755
1,2-Butylene Oxide (ethyl oxirane)	106887
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC-114)	76142
1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)	354234
1,2-Ethanediol	107211
1,3,5-Trimethylbenzene (Mesitylene)	108678
1,3-Butylene Glycol	107880
1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	507551
1,3-Dimethyl-5-ethylbenzene	934747
1,4 Diglycidylxybutane	2425798
1,4-BENZENEDIOL	123319
1,4-bis-bromoacetoxy-2-butene	20679587
1,4-Dichlorobenzene	106487
1,4-dioxane	123911
1,6-DIISOCYANTO-HEXANE	822061
1-(2-butoxyethoxy)-2-propanol	124163
1-Acetoxy-2-butoxyethane (2-Butoxyethyl acetate)	11272
1-Amino-2-Propanol	78966
1-Butanol	71363
1-Butoxy-2-propanol	5131688
1-Chloro-1,1-difluoroethane (HCFC-142b)	75683
1-Chloro-1-fluoroethane (HCFC-151a)	1615754

ATTACHMENT E

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier. Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
1-Chloro-4-trifluoromethyl benzene (Parachlorobenzotrifluoride)	98566
1-Ethoxy-1,1,2,2,3,3,4,4,4-nonfluorobutane (C4F9OC2H5)	163702054
1-Ethyl-2-methylbenzene (o-Ethyltoluene)	611143
1-Ethyl-3-methylbenzene (m-Ethyltoluene)	620144
1-Ethyl-4-methylbenzene (p-Ethyltoluene)	622968
1-Methoxy-2-propanol	107982
1-Methoxy-2-Propanol Acetate	108656
1-Methoxy-2-Propyl acetate	108656
1-METHYL - 4 -(1-METHYLETHENYL) CYCLOHEXENE	59892725
1-METHYL-1-PHENYLETHYL HYDROPEROXIDE	80159
1-Methyl-2-propylcyclohexane	4291796
1-METHYL-2-PYRROLIDONE	872504
1-Methyl-3-ethylbenzene (m-Ethyltoluene)	620144
1-Methyl-4-isopropylcyclohexane (p-Menthane)	99821
1-Naphthyl-n-methylcarb-amate	63252
1-Nitropropane	108032
1-PENTANOL	71410
1-phenyl methanol	100516
1-Propanamine, 3-(Triethoxysilyl)-	919302
1-Propanol	71238
12-Hydroxy Octadecanoic Acid	3159624
12-Hydroxy Octadecanoic Acid Methyl Ester	141131
12-Hydroxy Octadecanoic Acid Monolithium Salt	7620771
12-HYDROXY-OCTADECANOIC ACID	3159624
2 (3H)-Furanone, Dihydro	96480
2,2,4 TMO	3236531
2,2,4 Trimethylhexamethylenediamine	3236531
2,2,4-TRIMETHYL -1,3-MONOISOBUTYRATE	25265774
2,2,4-Trimethyl-1,3-pentanediol	144194
2,2,4-Trimethyl-1,3-pentanediol di-isobutyrate (Texanol Iso-butyrate)	6846500
2,2,4-Trimethyl-1,3-pentanediol-iso-butyrate	25265774
2,2-dichloro-1,1-difluoroethyl methyl ether	76380
2,4 Dichlorophenoxy Acetic Acid	2008391
2,4,4 trimethylhexamethylenediamine	3236542
2,4-D Dimethylamine salt	2008391
2,4-dichlorophenoxy acetic acid	94757
2,4-DIISOCYANTO-1-METHYLBENZENE	584849
2,5-PYRROLIDINEDIONE	123568
2,6-Dimethylnonane	17302282
2-(2-Butoxyethoxy)-Ethanol	112345
2-(2-Ethoxyethoxy) ethanol	111900
2-(2-methyl-4-chlorophenoxy)-propionic acid	93652

Chemical Name	CAS #
2-(Difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane	163702087
2-(Difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane	163702087
2-(Ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane	163702065
2-(Ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane	163702065
2-(Methylethoxy)Phenol Methylcarbamate	114261
2-(Tert-butylamino)-4-Chloro-6-Ethylamino-s-triaz	5915413
2-Aminoethanol	141435
2-Bromo-2-chloro-1,1,1-trifluoroethane	151677
2-Butanol	78922
2-Butanone	78933
2-BUTENEDIOIC ACID	110167
2-Butoxyethanol	111762
2-Butoxyethyl Acetate	112072
2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	2837890
2-CYANO-2-PROPENOIC ACID ETHYL ESTER	7085850
2-Ethanolhexanol distillates	68609687
2-Ethoxyethanol	110805
2-ETHOXYETHYL ACETATE	111159
2-ETHYL OXY-BIS-HEXANOIC ACID	18268707
2-Ethyl-3 Ethanoxpropionate	763699
2-Ethylhexyl Nitrate	27248967
2-Heptanone	110430
2-Methoxy-1-Propanol	1589475
2-Methoxy-1-Propanol Acetate	70657704
2-METHOXYETHYLACETATE	110496
2-Methoxymethylethoxy Propanol	34590948
2-Methyl decane	6975980
2-Methyl heptane	592278
2-Methyl nonane	871830
2-METHYL PROPANE	75285
2-Methyl-1-Propanol	78831
2-Methyl-2,4-Pentanediol	107415
2-METHYL-2-PROPENOIC ACID MONOESTER	27813021
2-methyl-4-isothiazoline-3-one	2682204
2-METHYLHEXANE	591764
2-MethylNaphthalene	91576
2-methylpentane	107835
2-Nitropropane	79469
2-Pentanone (Methyl propyl ketone)	107879
2-PHENYLHYDRAZIDE ACETIC ACID	114830
2-Propanol	67630
2-propanol, 1-methoxy-	107982

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier. Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
2-propanol, 1-[2-(2-methoxy-1-methylethoxy)-1-m...	20324338
2-Propanol-1-Butoxy	5131668
2-Propanone	67641
2-PROPENOIC ACID	79107
2-Propoxyethanol	2807309
2251 Oil (or 2263 Oil @ 64742-47-8)	64742149
3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	422560
3,6-dichloro-o-anisic acid (Benzoic acid, 3,6 dichloro-2-methoxy)	1918009
3-4 Dimethyl-2,6 Dinitribenzenamine	40487421
3-ETHYOXY PROPANOIC ACID ETHYL ESTER	763699
3-Methyl decane	13151343
3-METHYLHEXANE	589344
3-METHYLMETHOXYBUTANOL	56539663
3-methylpentane	96140
4,6-Dichloro-2-Trichloromethylpyridine	1129197
4-Hydroxy-4-Methyl-2-Pentanone	123422
4-Isopropenyl 1-Methylcyclohexane	5989275
4-Methyl decane	2847725
4-Methyl heptane	589537
4-Methyl nonane	17301949
4-Methyl-2-Pentanol	108112
4-Methyl-2-Pentanone	108101
5 Bromo-3-Sec-Butyl Methyluracil	314409
5-chloro-2-methyl-4-isothiazoline-3-one	26172554
5-Methyl decane	13151354
9-Octadecenoic Acid (Z) Ammonium Salts	544605
99.5% Monochlorotoluene	95498
a,a,a-trifluoro-s,6-dinitro-n,n-dipropyl-p-toluide	1582098
A-70 Hydrocarbon Propellant	68476857
Acenaphthene	82329
Acetamide, N, N'-(ethenylmethylsilylene)Bis-N-Me	50791872
Acetic Acid	64197
Acetic Acid 100%	64197
ACETIC ACID ETHYL ESTER	141786
ACETIC ACID GLACIAL	64197
Acetone	67641
Acetone USP	67641
Acetophenone	98862
Acrolein	107028
ACRYLIC ACID	79107
Aerothene TT	71556
Alcohol	64175
Alcohol Ethoxylate	68439509
ALCOHOL SDA	64175

Chemical Name	CAS #
ALIPHATIC DISTILLATE	64741737
Aliphatic Hydrocarbon	64742963
Aliphatic Hydrocarbon	64742977
Aliphatic Hydrocarbon	64771728
ALIPHATIC HYDROCARBON	64741657
ALIPHATIC HYDROCARBON	64742899
Aliphatic Hydrocarbon (Stoddard Type)	8052413
aliphatic petroleum distillate	64742967
Aliphatic Petroleum Distillate	64742887
Aliphatic petroleum distillates	8008206
Aliphatic petroleum distillates	64741657
Aliphatic petroleum distillates	68334305
Aliphatic Petroleum Hydrocarbon	64741442
Alkali Surfactant	61790123
Alkali Surfactant NM	64972196
Alkyl Acetate	90438792
Alkyl Dimethyl Benzyl Ammonium Chloride	68391015
Alkyl Dimethyl Ethyl Benzyl Ammonium Chloride	68956790
Alkyl dimethylbenzylammonium chloride	68391015
Alkyl Glycidyl Ether	68609972
Alkyl Olefin Sulfonate	68439576
Alkyl Olefin Sulfonate, Sodium Salt	68439576
Alkylaryl Sulfonate	26264051
Alkylaryl Sulfonate Isopropylamine Salt	26264051
Alkylation Naphtha, heavy	64741657
Alkylphenol Ethanol	9016459
Alkylphenol Ethoxylate	9016459
Alpha terpineol	98555
Amino Methyl Propanediol	115695
Aminomethyl Propanol	124685
Ammonium Lactate (Propanoic acid, 2-hydroxy-monoammonium salt)	515980
Ammonium Lauryl Sulfate	2235543
Ammonium Thioglycolate	5421465
Amyl Acetate	628637
arcosolv pm	107982
Armak 1194	61791262
Aromatic 150	25551137
Aromatic 200 Solvent	68477316
Aromatic Hydrocarbon Solvent	64741680
AROMATIC HYDROCARBON SOLVENT	68477316
Aromatic Petroleum Distillate	64741986
AROMATIC PETROLEUM DISTILLATE	68477316
Aromatic Petroleum Distillates	64742907
AROMATIC SOLVENT	13330207
Asphalt	8052424
Atrazine - Tech	1912249

ATTACHMENT E

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier. Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
ATROSOL 504 (citrus acid?)	77929
Bardac 208M Lonza	68424955
Bardac MB-50]	139082
Barrium Sulfinate	61790485
Base Oil	8030309
Benefin	1861401
Benomyl	17804352
Bensulide	741562
Benzaldehyde	100527
Benzalkonium Chloride	8001545
Benzocaine (Ethyl p-aminobenzoate)	94097
Benzotriazole	95147
Benzoyl Alcohol	100516
Benzyl Acetate	140114
Benzyl Alcohol	100516
benzyl ammonium chloride	68424851
Benzylkonium Chloride (w/ 20% ethanol)	68424851
Betaine	61789400
Bismuth Octoate	67874719
Boiled Linseed Oil	8001261
BTC-2125M 80% Stephan Company	68391015
BTC-8249 Stephan Company	68391015
BTC-8358 Stephan Company	8001545
Butane	106978
Butane, branched and linear	68513655
Butanediol diglycidyl ether	2425798
Butanol	71363
Butanol	78922
Butoxyethanol	111762
ButoxyPropanol	57018527
Buturol	71363
Butyl acetate	123864
Butyl acetate	540885
Butyl Alcohol	71363
BUTYL ALCOHOL	78922
Butyl Carbitol	112345
Butyl cellosolve	111762
Butyl Cellosolve Acetate	112072
Butyl Glycidyl Ether (Oxirane, butoxymethyl)	2426086
Butylene Glycol	107880
Butyrolactone	96480
C-8/C-10 Alcohol	68803156
C10-15 Saturated Hydrocarbon	64742478
C10-C11 PARAFFINS CYCLO-PARAFFINS	64741657
C11-12 Isoparaffin	68551177
C11-13 ISOPARAFFIN	64742489
C11-13 Isoparaffin Solvent	68551177

Chemical Name	CAS #
C12 Alpha Olefin	25378227
C12-C15 Ethoxylated Alcohol	68131395
C3-C4 Alkane Propellant	68475592
C3-C4 Propellant	68475592
C4F9OC2H5 (1-Ethoxy-1,1,2,2,3,3,4,4,4-nonfluorobutane)	163702054
C4F9OCH3 (1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane)	163702076
c6-oxo Alcohol Acetate	88230357
C9-11 ISOPARAFFIN	68551166
C9-C12 Alkylbenzenes	68515253
C9-C12 Saturated Hydrocarbons	64741657
camphor	76222
Camphor	21368683
CAMPHOR	464493
Camphor Oil	8008513
Camphor yellow	8008513
CAPROLACTAM (2H-Azepin-2-one, hexahydro)	105602
Captan	133062
Captan, Technical	133062
CARBAMIDE	57136
Carbaryl	63252
Carbaryl - Technical	63252
Carbital DE	111900
Carbitol	111900
Carbitol Solvent	111900
Carbon Dioxide	124389
Carbon tetrachloride	56235
Carsamide CA	61789193
CASTOR OIL	8001794
Cellosolve (EGEE)	110805
Cellosolve Acetate	111159
Cellosolve Solvent	110805
CFC-11 (Trichlorofluoromethane)	75694
CFC-113 (1,1,2-Trichloro-1,2,2-trifluoroethane)	76131
CFC-114 (1,2-Dichloro-1,1,2,2-tetrafluoroethane)	76142
CFC-115 (Chloropentafluoroethane)	76153
CFC-12 (Dichlorodifluoromethane)	75434
CHLOROBENZENE	108907
CHLORODIFLUOROMETHANE	75456
Chlorodifluoromethane (HCFC-22)	75456
Chlorofluoromethane (HCFC-31)	593704
CHLOROFORM	67663
Chloropentafluoroethane (CFC-115)	76153
Chloropicrin (trichloronitromethane)	76062
CHLOROTOLUENE	95498
Chlorpyrifos	291882

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier.
Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
Chlorpyrifos	2921882
Chlorpyrifos-methyl	5598130
CIS 1,3-Dichloropropene	10061015
cis-1,3-Dimethylcyclohexane	63840
cis-Decalin	49316
Citrus Distillate	5989275
Citrus Terpenes	5989275
Clopyralid Monoethanolamine salt	57754855
Clove Oil	8000348
Cocamidopropyl Amino Betane	61789400
Coco Diethanolamide	67785131
Coco Diethanolamide-sulfonate	67785119
Cocoamidopropyl Amine Oxide 35%	68155099
Cocoamidopropyl Betaine	70851079
Coconut Diethanolamine	68603429
Copper Naphthenate	1338029
Corvus Oil 00519-13	64742558
Cottonseed Oil (Gossypium Hirsutum)	8001294
Cresol	1319773
CRESOL 174	1319773
CRESOLS, MIXED	1319773
Cresylic acid	1319773
Crude Citrus Limonene	5989275
Cyclohexane	110827
Cyclohexanol	108930
Cyclohexanone	108941
Cyclomethicone	69430246
Cyclomethicone (DC 244)	69430246
Cyclomethicone (DC245/345)	69430246
CYCLOMETHICONE TETRAMER	69430246
Cythion Insecticide Concentrate	121755
D Limonene	5989275
D'LIMONENE	7705148
d-Limonene	68647723
D-Limonene	68917577
D-LIMONENE	58917577
D-Tert Butyl Phenyl Glycidyl Ether	3101608
Damar gum	9000162
DDVP	620737
DE	111900
Decahydronaphthalene	91178
Decalin	91178
Decalin (Decahydronaphthalene)	91178
decamethylcyclopentasiloxane	541026
DEET	134623
DEET (Di Ethyl Toluamide)	134623
DEG Methyl Ether	111773
Denatured Ethyl Alcohol	64175
denatured ethyl alcohol (w/ camphor)	64175

Chemical Name	CAS #
Deodorized Kerosene	8008206
Deodorized Kerosene	64742967
DETA	111400
Dexpanthenol	81130
Di (2- Ethylhexyl Phthalate)	117817
Diacetone alcohol	123422
Dialkyl methyl benzylammonium chloride	73049759
Diazinon	333415
Diazinon MG-8	333415
Diazinon MG-8 Insecticide Concentrate	333415
Dibutyl Phthalate	84742
Dicetyl Diammonium	1812539
Dichlorodifluoromethane	75718
Dichlorodifluoromethane (CFC-12)	75434
Dichloromethane (Methylene chloride)	75092
Dichlorvos	62737
Diethyl Dimethyl Ammonium Chloride	7173515
Diesel Fuel	68476346
Diesel Fuel #2	64742442
Diethanolamine	111422
Diethyl Ether	60297
Diethyl phthalate	84662
Diethylamine Salt of 2,4-dichlorophenoxy acetic acid	2008391
Diethylamine salt of 2,4-dichlorophenoxyacetic acid	94757
DIETHYLAMINOETHANOL	100378
Diethylene Glycol	114666
DIETHYLENE GLYCOL	111466
Diethylene glycol butyl ether	112345
Diethylene Glycol Butyl Ethers	111981
DIETHYLENE GLYCOL BUTYL ETHERS	111981
DIETHYLENE GLYCOL DIETHYL ETHER	112367
Diethylene Glycol Dimethyl Ether	111966
diethylene glycol ethyl ether	111900
diethylene glycol methyl ether	111773
DIETHYLENE GLYCOL METHYL ETHERS	89399280
Diethylene Glycol Monobutyl Ether	112345
Diethylene Glycol Monoethyl Ether	111900
Diethylene Glycol Monomethyl Ether	111773
Diethylene Glycol N-Butyl Ether	112345
DIETHYLENE GLYCOL PHENYL ETHER	104687
diethylene triamine	111400
Diethylenetriamine	111400
DIFLUOROETHANE	75378
Difluoromethane (HFC-32)	75105
Diglycolamine	929066
DIHYDROXY ACETONE	96264

ATTACHMENT E

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier. Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
Diisobutyl Ketone	108838
Diisopropyl Adipate (hexanedioic acid, bis (1-methylhexyl))	6938949
Dimethicone Copolyol	64365237
Dimethoate	60515
Dimethoate - Technical	60515
Dimethoate Insecticide Concentrate	60515
Dimethyl Adipate (hexanedioic acid, methyl ester)	627930
Dimethyl Benzene	1330207
Dimethyl Carbinol	67630
Dimethyl Ether	115106
Dimethyl Formamide	68122
Dimethyl Glutarate (Pentanedioic acid, dimethyl ester)	1119400
Dimethyl Ketone	67641
DIMETHYL PHENOL PHOSPHATE	25155231
DIMETHYL SILOXANE	63148629
Dimethyl Succinate (Butanedioic acid, dimethyl ester)	106650
Dimethyl Sulfoxide	67685
Dimethylamine	124403
Dimethylamine Salt of Dicamba	1918009
Dimethylamine Salt of MCPP	93652
Dimethylamino Propylamine	109557
Dimethylethanolamine	108010
Diethyl Phthalate	117840
Diethyl sebacate (Decanedioic acid, bis 2-ethyl hexyl ester)	122623
DIPENTENE (P-MENTHA-1,8-DIENE ?)	138863
Dipropylene glycol	25265718
Dipropylene glycol	25265718
dipropylene glycol ethyl ether	3459948
dipropylene glycol methyl ether	3459948
DIPROPYLENE GLYCOL METHYL ETHER	12002254
Dipropylene glycol monomethyl ether	13459948
Dipropylene Glycol Methyl Ether	34590948
Dipropylene Triamine	56188
Disodium Cocamide Mipa Sulfosuccinate	68515651
Disodium ethylene bisdithiocarbamate	142596
Disodium Laureth Sulfosuccinate	39354455
Distillates (Petroleum), Solvent-Rf Lt.Nap	64741895
DME	115106
Dodecane	112403
Dodecylbenzenesulfonate	25155300
Dodecyl Benzene Sulfonic Acid	27176870
Dodecylbenzene Sulfonate	27176870
Dow Corning 344	69430246

Chemical Name	CAS #
DOWANOL DPM	34590948
Dowanol PM Acetate	108656
Dowanol PM Glycol Ether	107982
Dursban	2921882
Dursban (Chlorpyrifos)	2921882
Dursban H.F. Insecticide Concentrate	2921882
Dursban HF	2921882
Dymel A	115106
EB	111762
EEP Solvent	763699
EKTASOLVE	2807309
Ektasolve EP	2807309
Emcol 14	71012107
Epoxidized Soybean Oil	8013078
Epoxy Resin	28064144
Ethalfurain	55283686
Ethane	74840
Ethanol	8024451
ETHANOL	64175
Ethanol (39C SDA)	8024451
ETHANOL (METHANOL DENATURED)	8013523
Ethanol SDA 39C	8024451
Ethanol, 2-butoxy	111762
Ethanolamine	141435
Ethanolamine Sulfite	15535292
Ethoxy Sulfate, Neodol 25-3S	68586342
Ethoxydiglycol	111900
Ethoxyethanol	110805
Ethoxylated Alcohol C12-15	68131395
Ethoxylated Alcohol C12-16	68551122
Ethoxylated Alcohol C12-16	68551122
Ethyl 3-Ethoxypropionate	763699
ETHYL 3ETHOXYPROPIONATE	7636699
Ethyl Acetate	141786
Ethyl Alcohol	64175
Ethyl Alcohol	97702170
Ethyl Alcohol SDA	64175
Ethyl Benzene	100414
Ethyl Ester of PVM/MA Copolymer (w/ethanol)	25087063
Ethyl Ether	60297
Ethyl-2-cyanoacrylate	7085850
Ethylbenzene	110414
Ethylcyanoacrylate	7085850
Ethylene	74851
Ethylene (bis) dithiocarbamate, disodium salt	142596
ETHYLENE DIAMINE	107153
Ethylene Diamine Tetra Acetate	60004

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Chemical Name	CAS #
ETHYLENE DIAMINE TETRA ACETATE	60004
Ethylene Dichloride	107062
Ethylene Glycol	107211
ETHYLENE GLYCOL BUTYL ETHER ACETATE	112072
Ethylene Glycol Diethyl Ether	629141
Ethylene Glycol Dimethyl Ether	110714
ETHYLENE GLYCOL METHYL ETHER	109864
Ethylene Glycol Monobutyl ether	111762
Ethylene Glycol Monoethyl Ether	110805
Ethylene Glycol Monoethyl Ether Acetate	111159
Ethylene Glycol Monomethyl Ether	109864
Ethylene Glycol Monomethyl Ether Acetate	108656
Ethylene Glycol Monopropyl Ether	2807309
Ethylene Glycol N-Butyl Ether	111762
ETHYLENE GLYCOL PHENYL ETHER	122996
Ethylene Glycol, Monophenyl Ether	122996
Ethylene Glycol-n-propyl Ether	2807309
Ethylene Oxide (Oxirane)	75218
Ethylene/vinyl acetate polymer	24937788
Ethylfluoride (HFC-161)	353366
Ethyltoluenes	25550145
Eucalyptus	8000484
Eugenol	97530
Fatty Diethanolamide	68604353
Ferbam	14484641
FORMALDEHYDE	50000
Formalin Formaldehyde	50000
Formic acid	64186
FORMIC ACID (90%)	64186
FREON 22 SOLVENT	75456
FREON TF	76131
fuel oil no. 2	68476302
Furfuryl Alcohol	98000
Gamma-Aminopropyltriethoxysilane	919302
Gamma-Aminopropyl Triethoxysilane	11919302
gamma-Butyrolactone	96480
Gantrez ES225	25087063
Glutaraldehyde (Pentanedial)	111308
Glycereth-7	31694550
Glycereth-7	31694550
Glycerin	56815
Glyceryl Thioglycolate	30618849
Glycol Ether (Butyl Carbitol)	112345
GLYCOL ETHER (BUTYL CARBITOL)	112345
GLYCOL ETHER ACETATE	108656
Glycol Ether DB	112345
Glycol Ether De-Low Grav.	111900

Chemical Name	CAS #
Glycol Ether DM	111773
Glycol Ether DPM	34590948
GLYCOL ETHER DPM	111762
Glycol Ether DR-Lo Grav.	111900
GLYCOL ETHER EB	111762
GLYCOL ETHER EE	110805
Glycol Ether EP	2807309
Glycol Ether EPH	122996
GLYCOL ETHER PM	107982
Glycol Methylene Ether (1,3-Dioxolane?)	646060
Glycolic Acid	79141
Gum Turpentine	8006642
GUM TURPENTINE	9005907
Halothane	151677
Halso AG125 Monochlorotoluene	25168052
HAMPOSYL L-30	137166
Han Solvent	64742069
HAN-857	64742069
HCFC-123 (1,1,1-Trifluoro-2,2-dichloroethane)	306832
HCFC-123a (1,2-Dichloro-1,1,2-trifluoroethane)	354234
HCFC-124 (2-Chloro-1,1,1,2-tetrafluoroethane)	2837890
HCFC-141b (1,1-Dichloro-1-fluoroethane)	25167888
HCFC-142b (1-Chloro-1,1-difluoroethane)	75683
HCFC-151a (1-Chloro-1-fluoroethane)	1615754
HCFC-22 (Chlorodifluoromethane)	75456
HCFC-225ca (3,3-Dichloro-1,1,1,2,2-pentafluoropropane)	422560
HCFC-225cb (1,3-Dichloro-1,1,2,2,3-pentafluoropropane)	507551
HCFC-31 (Chlorofluoromethane)	593704
Heavy Alkylate Naphtha	64741657
Heavy Alkylate Naphtha	64742657
Heavy Aromatic Naphtha Solvent	64742945
Heptane	142825
HEXAMETHYLENEDIAMINE	6898775
HEXANE	110543
Hexone	108101
Hexylene Glycol	107415
Hexylene glycol (2-Methyl-2,4-pentane diol)	107415
HFC 43-10mee (1,1,1,2,3,4,4,5,5,5-Decafluoropentane)	138495428
HFC-125 (Pentafluoroethane)	354336
HFC-134 (1,1,2,2-Tetrafluoroethane)	359353
HFC-134a (1,1,1,2-Tetrafluoroethane)	811972

ATTACHMENT E

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Chemical Name	CAS #
HFC-143a (1,1,1-Trifluoroethane)	420462
HFC-152a (1,1-Difluoroethane)	75376
HFC-161 (Ethylfluoride)	353366
HFC-23 (Trifluoromethane)	75467
HFC-236ea (1,1,1,2,3,3-Hexafluoropropane)	431630
HFC-236fa (1,1,1,3,3,3-Hexafluoropropane)	690391
HFC-245ca (1,1,2,2,3-Pentafluoropropane)	679867
HFC-245ea (1,1,2,3,3-Pentafluoropropane)	24270664
HFC-245eb (1,1,1,2,3-Pentafluoropropane)	431312
HFC-245fa (1,1,1,3,3-Pentafluoropropane)	460731
HFC-32 (Difluoromethane)	75105
HFC-365mfc (1,1,1,3,3-Pentafluorobutane)	406586
High Flash Naptha	68476799
Hydrocarbon Detergent	137166
HYDROCARBON PROPELLANT	68476868
Hydrocarbon Propellant A-17	106978
Hydrocarbon resin	68003510
HYDROCARBONS	64741737
Hydroquinone	123319
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	64742489
hydrotreated light distillate	64742149
Hydrotreated Light Distillate	64742478
HYDROTREATED LIGHT DISTILLATE	64742478
Hydrotreated middle distillate	64742467
hydroxy alkylmethacrylate	27813021
Hydroxyacetic Acid	79141
HYDROXYETHYL METHACRYLATE	868779
Imazaquin	81335479
Indan	496117
Intrasol FA 12/18/5	22047490
Iodine	7553562
IPA	67630
Isobornyl Acetate	125123
Isobornyl Acetate (Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimethyl,-acetate)	125122
Isobutane	75285
Isobutane (A-31)	75285
ISOBUTANE/ PROPANE	68476857
isobutane/propane	68475592
isobutane/Propane	68476868
Isobutanol	78831
ISOBUTYL ACETATE	110190
Isobutyl Acetone	110190
Isobutyl Alcohol	78831
Isobutyl Isobutyrate	97858
Isobutyl methacrylate	97869

Chemical Name	CAS #
Isobutylcyclohexane	1678984
Isohexadecane	15220856
isohexane	107835
isohexane	73513425
Isomeric Hydrocarbons	68551188
Isopar C	64742489
Isopar E	64742489
Isopar G	64742489
Isopar H	64742489
Isopar K	64742489
Isopar L	64742489
Isopar M	64742478
ISOPARAFFIN HYDROCARBON	64741657
ISOPARAFFINIC PETROLEUM	68551199
ISOPARAFFINIC SOLVENT	64742489
ISOPARRIFINIC PETROLEUM SOLVENT	8001603
Isophorone	78591
Isophorone Diamine	2855132
Isophorone diisocyanate	4098719
Isopropanol	67630
Isopropyl Acetate	108214
Isopropyl Alcohol	67630
Isopropyl Alcohol	26080191
Isopropyl Alcohol, Anhydrous	67630
Isopropyl Isosterate	68171335
ISOPROPYLAMINE	75310
Isopropylcyclohexane	696297
Kaydol Mineral Oil	8012951
KD COCO AMIDE	61791319
kerosene	80082061
Kerosene	9002059
Kerosene	64742810
KEROSENE	64642478
Klearol Mineral Oil	8012951
L.P. Gas Propellant	68476868
Lactic Acid	50215
Lactic AcidEDTA	50215
Lactol Spirits	64741555
Lead Chromate (C.I. pigment yellow 34)	1344372
Lemon Oil	88916892
LIGHT ALIPHATIC NAPHTHA SOLVENT	64742898
LIGHT AROMATIC NAPHTHA SOLVENT	64742956
Light Distillate	64742149
Light naphtha	64742840
Light Naphtha	64742149
light petroleum distillate	64742749
LIGROINE	8032324
Lindane (hexachlorocyclohexane)	58899
LINEAR ALCOHOL ETHOXYLATE	69013189

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Chemical Name	CAS #
LINSEED OIL	68001261
Liquid Petroleum Propellant	68476889
Liquified Petroleum Gas	68476857
LPA Petroleum Distillate	68551188
Lubricating Oil	64642525
M-cresol	108394
m-pyrol	872504
M-Pyrol (methyl pyrrolidine)	120945
Malathion	121755
Malathion TE	121755
Malathion - Technical	121755
Malic Acid (Butanedioic acid, hydroxy?)	6915157
Manalox Resin	13419153
Medium Aliphatic Solvent Naphtha	64742887
MEK	78933
Menthol	89781
Menthol	15356704
MESITYL OXIDE (3-penten-2-one, 4-methyl?)	141797
Meta Cresol 36/38	108394
Methacrylic Acid	31346573
Methacrylic Acid (2-methyl, 2-propenoic acid)	79414
Methane	74828
Methanoic acid	64186
Methanol	49120
Methanol	67561
Methanol Alcohol	67561
METHOXY PROPANOL ACETATE	108656
Methoxychlor	72435
Methoxymethyl Ethoxypropanol	34590948
Methoxypropanol	107982
Methyl Alcohol	67561
Methyl amyl alcohol	108112
Methyl Amyl Ketone	110430
METHYL BENZENE	108883
Methyl Benzoate	93583
Methyl Bis Hydroxyethyl Ammonium Methylsulfate	68410695
METHYL CARBITOL	111773
Methyl Cellosolve	109864
Methyl Cellosolve Acetate (EGMEA)	110496
Methyl chloroform (1,1,1-Trichloroethane)	71556
METHYL CYANOACRYLATE	137053
Methyl Dihydroxyethylisotridecyloxypropyl Ammonium	68610195
METHYL ETHER	115106
Methyl Ethyl Ketone	78933
Methyl Isoamyl Ketone	110123

Chemical Name	CAS #
Methyl Isobutyl Ketone	108101
Methyl isopropyl ketone	563804
Methyl methacrylate	80626
Methyl n-amyl Ketone	110430
METHYL N-PROPYL KETONE	107879
METHYL NAPHTHALENE	65996794
Methyl Nonyl Ketone	112129
Methyl propyl ketone (2-Pentanone)	107879
METHYL SALICYLATE	119368
Methyl Tertiary Butyl Ether	1634044
METHYLAL, DIMETHOXYMETHANE	109875
Methylcyclohexane	108872
Methylcyclopentadienyl Manganese Tricarbonyl	12108133
Methylene Bis (4-Cyclohexylisocyanate)	512431
Methylene bis (thiocyanate)	6317186
Methylene bis(4-cyclohexylisocyanate)	5124301
Methylene Chloride	75092
Methylene chloride (Dichloromethane)	75092
MIBK	108101
MIDDLE DISTILLATE PETROLEUM SOLVENT EXTRACT	64742069
Mineral Oil	8020835
Mineral Oil	64741964
Mineral Oil	64742650
MINERAL OIL	64742525
Mineral Seal Oil	64741442
Mineral Seal Oil	64742309
Mineral Seal Oil	64742467
Mineral Seal Oil	64742809
MINERAL SEAL OIL	64741657
Mineral spirits	80524137
Mineral spirits	62742887
Mineral spirits	68513031
Mineral Spirits	64475850
Mineral Spirits	64741324
Mineral Spirits	64741442
Mineral Spirits	64741657
Mineral Spirits	64742428
Mineral Spirits	64742488
Mineral Spirits	64742897
Mineral Spirits	64748478
Mineral Spirits	64761419
Mineral Spirits	80542413
Mineral Spirits	64742442
MINERAL SPIRITS	64642887
Mineral White Oil (Slab Oil)	8042475
Modified Polyethoxylated Alcohol	70321561

ATTACHMENT E

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier. Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
MODIFIED POLYETHOXYLATED ALCOHOL	70321561
Molybdate Orange	12656858
mono-Chlorotoluene	25168052
Monochlorobenzene	108907
Monochlorotoluene	25168052
Monosodium Acid Methanearsonate	2163806
Morpholine	68855547
MORPHOLINE	110918
MSMA	2163806
N, N-dimethylformamide	68122
N,N-Diethyl-M-Toluamide	134623
N,N-DIMETHYL-P-TOLUIDINE	99978
n- Butoxypropanol	5131668
N-(1-Ethylpropyl -3,4-Dimethyl 2,6-Dinitrobenzenam	40487421
N-Alkyl Dimethyl Benzyl Ammonium Chloride	8001545
N-Alkyl Dimethyl Benzyl Ammonium Chloride	68424851
N-amyl acetate	628637
N-BUTANE	106978
n-butanol	71363
n-Butyl Acetate	123864
n-Butyl Alcohol	71363
N-BUTYL ETHER OF ETHYLENE GLYCOL	111762
N-Butyl Propionate	590012
n-Heptane	142825
n-hexane	110543
N-Methyl -2- Pyrrolidone	872504
N-Methylpyrrolidone	872504
N-Methylpyrrolidone	120945
N-OCTANE	111659
N-pentane	109660
N-Phosphonomethylglycine	1071836
n-Propanol	71238
n-Propoxypropanol	1569013
n-Propyl acetate	109604
N-Propyl Alcohol	71238
n-Propylbenzene	103651
N-vinyl-2-pyrrolidone	88120
NABAM (Disodium Ethylene Bis Dithiocar-	142596
NAPHTHA	8030306
Naphtha Heavy Alkylate	64741657
Naphtha Light Aliphatic	64742698
Naphtha, Heavy Aromatic	64742069
NAPHTHA, STRAIGHT RUN, HEAVY	64741419
Naphthalene	91203

Chemical Name	CAS #
Naphthenic Acid Lead Salt	61790145
Naphthol Spirits	64792489
Naphthie Distillate	64742525
Neopentyl glycol (2,2-Dimethyl-1,3-Propanediol)	126307
Neutral Base Oil	64741895
Niacinamide (3-pyridine carboxamide)	98920
Nitrapyrin (Pyridine, 2-chloro-6-trichloro methyl?)	1929824
Nitrocellulose	9004700
NITROETHANE	79243
Nitroglycerin (1,2,3-propanetriol, trinitrate)	55630
NITROMETHANE	75525
Nonane	111842
NONY PHENOL ETHYLENE OXIDE 6 MOLE	68412544
Nonyl Phenyl Ethylene Oxide 6M	68412544
Nonylphenol Polyethoxylate	9016459
Normal Butyl Alcohol	71363
Norpar 15	64771728
O, O-dimethyl-O-phosphorothiate	333476
O- Dichlorobenzene	95501
o-benzyl-p-chlorophenol	120321
O-CHLOROTOLUENE	95498
o-cresyl glycidyl ether	25447143
O-Nitrotoluene	88722
Octane	111659
Octanol	111875
OCTYL DIMETHYL AMINE OXIDE	2605789
Octyl Epoxy Tallate	61788725
Octylphenol Ether	9036195
Octylphenyl Ethylene Oxide	9002931
Odorless Mineral Spirits	61741657
Odorless Mineral Spirits	64741418
Odorless Mineral Spirits	64742657
ODORLESS MINERAL SPIRITS	64475850
ODORLESS MINERAL SPIRITS	64742488
Odorless Mineral Spirts	64741657
ODORLESS MINIERAL SPIRITS	64742150
Oil Camphor	8008513
Oil Lavender	8000280
Oil of Pine Tar	8011481
Oil Pettitgrain	8014173
Oil Spike	8016782
Oleic Acid (9-octadecenoic acid)	112801
Oleyl Alcohol	143282
Orange Oil	8008579
Orange Oil	68606940

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Before referring to these CAS numbers, please note the provisions at the beginning of this list:

Chemical Name	CAS #
Orange Oil Terpenes	68647723
Orange Oil Terpenes	68917577
Orange Terpene	68647723
Orange Terpenes	5989275
Orchex 796	72623848
ORTHO DICHLOROBENZENE	95501
ortho-phenylphenol	90437
ORTHODICHLOROBENZENE	25321226
Oxo-Heptyl Acetate	90438792
p-dichlorobenzene	106467
p-Menthadiene	68956569
P-Menthadienes	68956569
Pale Oil	8002059
Pale Oil	68476302
Panasol AN2K	63798787
Para-dichlorobenzene	106467
Parachlorobenzotrifluoride (PCBTF)	98566
Parachlorometoxylenol	88040
Paraffin Oil	8012951
Paraffin Wax	8002742
Paraffinic Distillate	64742650
PARAFFINIC PETROLEUM SOLVENT	64741895
Parafin series of hydrocarbon solvents	68466868
Paraformaldehyde	30525894
PCBTF (Parachlorobenzotrifluoride)	98566
Pentachloronitrobenzene	826886
PENTAETHYLENE GLYCOL	4792158
Pentafluoroethane (HFC-125)	354336
Pentane	109660
PERACETIC ACID	79210
Perchloroethylene	127184
Permethrin (80 % concentrate)	52645531
Petrolatum	8009038
PETROLEUM	8000209
petroleum distillate	68477316
Petroleum Distillate	64741442
Petroleum Distillate	64741657
Petroleum Distillate	64741862
Petroleum Distillate	64741908
Petroleum Distillate	64742376
Petroleum Distillate	68476302
Petroleum Distillate	68551155
PETROLEUM DISTILLATE	64741771
PETROLEUM DISTILLATE	64741964
Petroleum Distillate (Deodorized Kerosene)	64742149
Petroleum Distillate, Naphtha	8002059
Petroleum distillates	64742894
Petroleum distillates	64842898

Chemical Name	CAS #
Petroleum distillates	67472945
Petroleum Distillates	64741478
Petroleum Distillates	64742309
PETROLEUM DISTILLATES	64741975
PETROLEUM DISTILLATES	64742964
Petroleum Ether	8032324
Petroleum hydrocarbon	64742467
Petroleum Hydrocarbon Distillate	64741964
Petroleum Hydrocarbon Mix	61742945
PETROLEUM HYDROCARBON NAPHTHA	64741920
PETROLEUM HYDROCARBON OIL	64742525
Petroleum Middle Distillate	68476346
Petroleum Oil	64741895
Petroleum Oil	64742650
PETROLEUM OIL	64742467
Petroleum Process Oil	64742558
Petroleum Resin	64742161
Petroleum solvent	64771728
Petroleum Solvent	64741657
Phenol	108952
PHENOL (90%)	108952
Phenol Isopropylated, Phosphate	68937417
Phenoxyethanol	122996
Phenyl Trimethicone	2116849
Phenyglycol ether	122996
Picloram, Potassium salt	2545600
pine oil	98555
Pine Oil	8002093
Piperalin	3478942
Piperonyl Butoxide	51036
Piperonyl Butoxide, Technical	51036
PM Acetate	108656
PM Acetate	84540578
Poly Solv DB	112345
Poly Solv DE	111900
Poly Solv EB	111762
Polybutene	9003296
Polydimethylsiloxane	63148629
Polyethylene	9002884
Polyethylene Glycol	25322683
Polyethylene Glycol Dilaurate	9005021
POLYETHYLENE GLYCOL DILAURATE	9005021
Polyglycol 26-3	69029396
Polyglycol 26-3	69029396
Polyglycol Dimethacrylate	25852475
Polyglycol P-2000	25322694
Polyisobutylene Solution	64742400
Polymethyl methacrylate	9011147

ATTACHMENT E

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier. Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
Polyoxyethylene Oxytol Phenyl Ether	9036195
Polysolve DM	111773
Polytetra fluoroethylene	9002840
Potassium dimethyldithiocarbamate	128030
Potassium Sorbate	24634615
PPG-2 Methyl Ether	13429077
Primary Amyl Acetate	628637
Process Oil	64742525
Prometon	1610180
Prometon - Technical	1610180
Propane	74986
PROPANE/BUTANE/ISOBUTANE	68476857
Propanoic Acid, 3-Ethoxy-Ethyl Ester	763699
Propanol, 1 (or 2) -2-methoxymethylethoxy-	34590948
Propanone	67641
PROPELLANT A-108 - PROPANE	74986
Propionic Acid	32351705
Propionic Acid	53404312
Propylene Glycol EP Solvent	2807309
PROPOXYETHANOL	2807309
PROPYL ACETATE	109604
Propyl Alcohol	71238
Propylbenzene	103651
Propylcyclohexane	1678928
Propylene Glycol	57556
Propylene Glycol	25322694
PROPYLENE GLYCOL METHYL ETHER	107556
PROPYLENE GLYCOL METHYL ETHER	107982
PROPYLENE GLYCOL MONOBUTYL ETHER	5131668
Propylene Glycol Monomethyl Ether	107982
Propylene Glycol Monomethyl Ether Acetate	108656
Propylene glycol T-Butyl Ether	57018527
Propylene glycol tertiary butyl ether	57018527
Propylene Glycol Methyl Ether Acetate	108656
PVP/VA Copolymer	25086899
Pyrenone CSE-10	8003347
Pyrethrins	8003347
Pyrethrum (PD-5 Residual)	8003347
Pyrocid Intermediate 5192 (Pyrethrin)	121211
Quaternary Blend (w/20% ethanol)	67784774
Quaternary Ammonium Chloride	8001545
Quaternary Ammonium Chloride	31075248
Refined Petroleum Distillate	92045379
RESIN A-BENZYL	100516
S&S, Di-Me,Hydroxy-Terminated UVCB	70131678
S-O,O-Diisopropyl phosphorodithioate	741582

Chemical Name	CAS #
Safety Solvent	64742809
Safety Solvent 200	64742809
SAFROLE #	94597
Saponified Vegetable Oil (Green Soap)	8026708
SD 40 Alcohol	97702180
SD Alcohol 38	64175
SD Alcohol 40	64175
SD-Alcohol	64175
SDA	64175
SDA-38B	64175
SDA-40 (Denatured Alcohol)	64175
SDA-40B Alcohol (Ethanol)	64175
Sec-butanol	78922
sec-Butyl alcohol	78922
Silanamine, 1,1,1-Trimethyl-n-(Trimethylsilyl)	68909206
Silicic Acid (HASiO ₄), Tetrapropyl	682019
Slane, Trimethoxymethyl-	1185553
Sodium Alkyl Benzene Sulfonate	2211985
Sodium Cocoyl Sarcosinate	61791591
Sodium Dimethyldithiocarbamate	128041
Sodium Dodecylbenzene Sulfonate	25155300
Sodium Laureth Ether Sulfate	9004824
Sodium Laureth Sulfate	151213
Sodium Laureth Sulfate	9004824
Sodium Laureth-12 Sulfate	9004824
Sodium Lauryl Ether Sulfate	9004824
Sodium Lauryl Sulfate	151213
Sodium Lauryl Sulfate Ether	1335724
Sodium Molybdate	7631950
Sodium Oleate	143191
Sodium Pareth-25 Sulfate (w/11% ethanol)	68891383
Sodium Tridecylbenzene Sulfonate	26248248
Sodium Xylene Sulfonate	1300727
SOL-71	64741657
Soltrol 145	64741657
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742899
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64752898
Solvent Naphtha T500-100	54742956
SOLVENT REFINED LIGHT NAPHTHA	64741840
SOLVENT REFINED LIGHT NAPHTHENIC DISTILLATE	64741975
Sorbitol (D-Glucitol, C ₆ H ₁₄ O ₆)	50704
SORBITOL (D-Glucitol, C ₆ H ₁₄ O ₆)	50704
Spike (Lavender Oil, Spanish)	8016782
Spruce oil	8008808
Standard Denatured Alcohol	77021810

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier.
Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
Steam Distilled Wood Turpentine	8006642
Stearalkonium chloride	122190
Stoddard Solvent	8052413
STRAIGHT RUN MIDDLE PETROLEUM	64741442
STYRENE (ethenyl benzene)	100425
Sulfonated Castor Oil	68187768
Sun Ag Oil 7N	64741884
SUN GOLDEN OIL #91 (SUN OIL CO.)	64742343
Sun Spray 6N	64741895
Sunpar 110	64741884
SWEETENED LIQUIFIED PETROLEUM GAS	68476858
T 500-100	68920069
T-Amyl Alcohol	75854
T-Butyl Alcohol	75650
T-Mulz 2900, Harcos, Kansas	69980741
Tail Oil	8002264
Tallow Iimid Methosulfate	68122861
Tallow Iimid Methosulfate	68122861
Tallowammonium Trimethyl Chloride	8030782
TEA-Laurel Sulfate	139968
Technical piperonyl butoxide	51036
Tenneco 500/100	25551137
Terpene	68956569
TERPENE ALCOHOLS	98555
Terpene Hydrocarbons	8002093
Terpineol	8000417
Terpinol	8000417
TERT-BUTYL ALCOHOL	75650
Tetrabutyl Titanate	5593704
Tetrachloroethylene	127184
Tetrachloroisophthalanitrile	18947456
Tetraethylene Glycol	112607
Tetraethylene Glycol Dimethacrylate	109171
Tetraethylene Pentamine	112572
tetrahydro-3,5-dimethyl-1,2-H-1,3,5-thiadiazine-2-e	533744
Tetrahydrofuran	109999
TETRAHYDROFURFURYL ALCOHOL	97994
Tetramethylthiuran Disulfide	137268
Tetrapropyl Orthosilicate	68209
Tetrapropyl Orthosilicate	682019
Tetrasodium EDTA	64028
tetrahydrofuran	2455245
Texanol	25265774
Texanol iso-butyrate	6846500
Textile spirits	64741840
Textile Spirits	110543
Thiobencarb	28249776

Chemical Name	CAS #
Thiodan - Technical	115297
Thioglycolate, Ammonium Salt	5421465
Thioglycolic Acid	68111
Thiram - Technical	137268
TOLUENE	108883
Trans 1,3-Dichloropropene	10061026
trans-Decalin	49327
Tri (beta-chloropropyl) phosphate	13674845
Tributoxy Ethyl Phosphate	78513
TRIBUTOXY ETHYL PHOSPHATE	78513
Tributoxyethyl Phosphate	78513
Trichlorfon	52686
Trichloroethylene	79016
Trichlorofluoromethane (CFC-11)	75694
Trichlorotrifluoroethane (CFC-113)	76131
Triethanolamine	102716
Triethanolamine Lauryl Sulfate	11178771
TRIETHYL PHOSPHITE	122521
Triethylamine	121448
Triethylene Glycol	112276
TRIETHYLENE GLYCOL	112276
Triethylene Glycol Dimethyl Ether	112492
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143226
Triethylene Tetramine	68919799
TRIETHYLENEDIAMINE	280579
Trifluoromethane (HFC-23)	75467
Trifluralin	1582098
Trimethyl Benzene	25551137
Trimethylhexamethylenediamine	25513648
Triphenol Phosphate	115866
TRIPROPYLENE GLYCOL	25498491
Tripropylene Glycol Methyl Ether	20324338
Tripropylene Glycol Methyl Ether	25498491
Tris (hydroxymethyl) nitromethane	126114
Triton	67923879
Triton X-200	67923879
Turpentine	8006642
Turpentine	9005907
Turpentine Oil Resin	8052140
Undecane	1120214
Undecenoic Acid	112389
Unsaturated Polyester Resin	25037665
URETHANE DIMETHACRYLATE	39318699
V.M.& P. Naphtha	64742896
Vegetable Glycerin	56815
Vinyl acetate	108054
VM & P NAPHTHA	8032324
VM & P Naptha	64742899

ATTACHMENT E

Use this list only if you are unable to obtain the CAS number of the ingredient from your supplier. Before referring to these CAS numbers, please note the provisions at the beginning of this list.

Chemical Name	CAS #
White Oil No. 9T	8042475
Wickenol	22047490
Wilcolate A	151213
Witch Hazel	68916392
Witch Hazel Distillate	68916392
Witch Hazel Distillate	68916781
Witch Hazel Distillate	84696195
Witch Hazel Extract	84696195
X 22-160	70131678
Xylene	108383
Xylene	1330207

Chemical Name	CAS #
Xylene (Mixture)	1330207
Xylene (o)	95476
XYLENE (p)	106423
Xylene in technical - Methyl Parathion	1330207
Xylene Mixed O, M, & P Isomers	1330207
Xylene-range aromatic solvent	64742954
Xylenols - mixed	1300716
Xylol (p)	106423
Zinc Napthenate	12001853

ATTACHMENT F: REACTIVITY BIN NUMBERS

Aliphatic and aromatic hydrocarbon solvent tables were obtained from the California Consumer Products Regulation, Title 17, California Code of Regulations, Subchapter 8.6, Article 1, Section 94701.

ALIPHATIC HYDROCARBON SOLVENTS

Bin	Average Boiling Point*** (degrees F)	Criteria	MIR Value
1	80-205	Alkanes (< 2% Aromatics)	2.08
2	80-205	N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)	1.59
3	80-205	Cyclo-Alkanes (≥ 90% and < 2% Aromatics)	2.52
4	80-205	Alkanes (2 to < 8% Aromatics)	2.24
5	80-205	Alkanes (8 to 22% Aromatics)	2.56
6	>205-340	Alkanes (< 2% Aromatics)	1.41
7	>205-340	N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)	1.17
8	>205-340	Cyclo-Alkanes (≥ 90% and < 2% Aromatics)	1.65
9	>205-340	Alkanes (2 to < 8% Aromatics)	1.62
10	>205-340	Alkanes (8 to 22% Aromatics)	2.03
11	>340-460	Alkanes (< 2% Aromatics)	0.91
12	>340-460	N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)	0.81
13	>340-460	Cyclo-Alkanes (≥ 90% and < 2% Aromatics)	1.01
14	>340-460	Alkanes (2 to < 8% Aromatics)	1.21
15	>340-460	Alkanes (8 to 22% Aromatics)	1.82
16	>460-580	Alkanes (< 2% Aromatics)	0.57
17	>460-580	N- & Iso-Alkanes (≥ 90% and < 2% Aromatics)	0.51
18	>460-580	Cyclo-Alkanes (≥ 90% and < 2% Aromatics)	0.63
19	>460-580	Alkanes (2 to < 8% Aromatics)	0.88
20	>460-580	Alkanes (8 to 22% Aromatics)	1.49

***Average Boiling Point = (Initial Boiling Point + Dry Point) / 2

AROMATIC HYDROCARBON SOLVENTS

Bin	Boiling Range (degrees F)	Criteria	MIR Value
21	280-290	Aromatic Content (≥98%)	7.37
22	320-350	Aromatic Content (≥98%)	7.51
23	355-420	Aromatic Content (≥98%)	8.07
24	450-535	Aromatic Content (≥98%)	5.00

PART VI: Samples of Completed Forms

SAMPLE #1: POISON OAK SHAMPOO

To provide help in understanding the following sample forms, this section provides some general information about Product Sample #1.

Background

The Company. Oakdale Roots Company, Inc. (ORC) is an independently owned company that manufactures, markets, and contract packages various types of consumer products. ORC is submitting information for only one of their products, Poison Oak Shampoo, which they solely manufacture and market. ORC holds all the ingredient information for this product.

The Product. Poison Oak Shampoo is a foaming shampoo, labeled for dogs, that claims to wash poison oak oils out of dog hair, fur, and skin.

Notable Form Details

Some items from the forms are detailed here for clarity.

FORM 1 – Responsible Party Information

- Two NAICS codes are provided because ORC manufactures products that fall under two different NAICS product categories.
- Both manufacturer/marketer and contract packager are checked because ORC is involved in both types of businesses.
- A parent company is not listed because ORC is independently owned.

FORM 2 – Source of Ingredient Information

- Item 1 has been checked because ORC holds all the ingredient information about this product and therefore will not use a formulator.

FORM 3 – Product Information

- Only the manufacturer/marketer box is checked for this product, since ORC does not contract package for this particular product.
- Poison Oak Shampoo is indicated as a pet care product.

FORM 4 – Ingredient Information

- Two of the ingredients are hydrocarbon solvents, so the trade names, manufacturers, and bin numbers have been listed in addition to the chemical names and CAS numbers.
- The contact information below the VOC Speciation Table has been left blank because the person who completed the ingredient information, John Doe, already listed his contact information above.

Note

It is assumed that ORC sent the "Preliminary Form: Who Must Complete the Survey?" ahead of time. ORC also submitted a product label, Confidential Information Form, and Voluntary Survey Evaluation with these forms, however they are not included in this sample.

CALIFORNIA AIR RESOURCES BOARD *** 2001 CONSUMER & COMMERCIAL PRODUCTS SURVEY
 STATIONARY SOURCE DIVISION, AIR QUALITY MEASURES BRANCH



FORM 1 - Responsible Party Information
(Instructions for completing FORM 1: See back side)

Check (✓) if Confidential

1. Company Name: Oakdale Roots Company, Inc.
 Division Name(s): Oakdale Products
 Mailing Address: 72 Milford Lane
 City: Oakdale State: CA Zip: 91302

2. Parent Company Name (if applicable): _____
 Mailing Address: _____
 City: _____ State: _____ Zip: _____

3. Contact Person: John Doe Phone: (507)555-0612 Fax: (507)555-0614
 Title: Director, Product Development Email: jdoo@oakdaleproducts.com

4. NAICS Code(s): 325620 325998
 (see Attachment C for common codes)

5. Number of products: (enter total number of products and/or product groups submitted) 1

6. Type of Business check (✓) all that apply	7. Gross Annual Receipts For Calendar Year 2001		8. Employees For Calendar Year 2001		9. Contract Employees For Calendar Year 2001	
	Worldwide check (✓) one	California Only check (✓) one	Worldwide check (✓) one	California Only check (✓) one	Worldwide check (✓) one	California Only check (✓) one
<input checked="" type="checkbox"/> Manufacturer/Marketer	<input type="checkbox"/> Less than \$250,000	<input type="checkbox"/> 1 to 10	<input type="checkbox"/> None	<input type="checkbox"/> 1 to 10	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> None
<input type="checkbox"/> Distributor	<input checked="" type="checkbox"/> Between \$250,000 and \$1 million	<input type="checkbox"/> 11 to 100	<input type="checkbox"/> 11 to 100	<input type="checkbox"/> 11 to 100	<input type="checkbox"/> 11 to 100	<input type="checkbox"/> 11 to 100
<input type="checkbox"/> Retailer	<input type="checkbox"/> Between \$1 million and \$10 million	<input type="checkbox"/> 101 to 250	<input type="checkbox"/> 101 to 250	<input type="checkbox"/> 101 to 250	<input type="checkbox"/> 101 to 250	<input type="checkbox"/> 101 to 250
<input checked="" type="checkbox"/> Contract Packager	<input type="checkbox"/> Between \$10 million and \$50 million	<input type="checkbox"/> 251 to 500	<input type="checkbox"/> 251 to 500	<input type="checkbox"/> 251 to 500	<input type="checkbox"/> 251 to 500	<input type="checkbox"/> 251 to 500
<input type="checkbox"/> Other (specify): _____	<input type="checkbox"/> Between \$50 million and \$100 million	<input type="checkbox"/> 501 to 750	<input type="checkbox"/> 501 to 750	<input type="checkbox"/> 501 to 750	<input type="checkbox"/> 501 to 750	<input type="checkbox"/> 501 to 750
	<input type="checkbox"/> Between \$100 million and \$1 billion	<input type="checkbox"/> More than 750	<input type="checkbox"/> More than 750	<input type="checkbox"/> More than 750	<input type="checkbox"/> More than 750	<input type="checkbox"/> More than 750
	<input type="checkbox"/> More than \$1 billion					

10. Comments: _____

11. Certification: I am an authorized company representative and hereby certify that all information entered by my company on FORM 1, FORM 2(s), FORM 3(s), Supplement(s) to FORM 3, and FORM 4(s) is complete and accurate to the best of my knowledge and belief.

Name: John Doe Title: Director, Product Development
 Signature: John Doe Date: 12/22/02

FORM 2 - Source of Ingredient Information

(Instructions for completing FORM 2: See back side)

Check (✓) if Confidential

Will your company be using a *formulator*? Indicate the source of ingredient information; Check (✓) "no" or "yes" and complete the blanks.

No, my company, Oakdale Roots Company, Inc., the responsible party, will not be using a *formulator* to complete ingredient information for any product or product group submitted for this survey.

- OR -

Yes, my company, _____, the responsible party, will be using a *formulator* to complete ingredient information for one or more products submitted for this survey. List *formulator* contact information below; photocopy sheet as needed.

Product Tracking Number(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formulator Company Name:	_____														
Formulator Contact Name:	_____														
Title:	_____														
Address:	_____														
City:	_____	State:	_____	Zip:	_____	Phone:	_____	Fax:	_____	Email:	_____				

formulator

Product Tracking Number(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formulator Company Name:	_____														
Formulator Contact Name:	_____														
Title:	_____														
Address:	_____														
City:	_____	State:	_____	Zip:	_____	Phone:	_____	Fax:	_____	Email:	_____				

formulator

Product Tracking Number(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formulator Company Name:	_____														
Formulator Contact Name:	_____														
Title:	_____														
Address:	_____														
City:	_____	State:	_____	Zip:	_____	Phone:	_____	Fax:	_____	Email:	_____				

formulator

Check (✓) if Confidential

FORM 3 - Product Information
(Instructions for completing FORM 3: See back side)

Product Tracking #: 2

A. RESPONSIBLE PARTY & PRODUCT INFORMATION

1. Company Name: <u>Oakdale Roots Company, Inc.</u> Contact Person: <u>John Doe</u> Title: <u>Director, Product Development</u> Phone: <u>(507)555-0612</u> Email: <u>jd@oakdaleproducts.com</u>		2. Full Product Name: <u>Poison Oak Shampoo</u>	
3. Product Form : <input checked="" type="checkbox"/> Aerosol Product <input type="checkbox"/> Pump Spray <input type="checkbox"/> Other (specify): <input checked="" type="checkbox"/> Foam <input type="checkbox"/> Gel <input type="checkbox"/> Liquid <input type="checkbox"/> Solid		4. Customer Type : <input checked="" type="checkbox"/> Household <input type="checkbox"/> Commercial/Institutional <input type="checkbox"/> Industrial (must = 100) check (✓) all that apply <u>100</u> % + _____ % + _____ % = <u>100</u> %	

B. ADDITIONAL PRODUCT INFORMATION

1. ARB Category Code(s) Primary Category Code: <u>37</u> <i>If applicable, Additional Category Code(s):</i> _____	2. Relation to Product check (✓) all that apply <input checked="" type="checkbox"/> Manufacturer/Marketer <input type="checkbox"/> Distributor <input type="checkbox"/> Retailer <input type="checkbox"/> Contract Packager <input type="checkbox"/> Other (specify): _____	3. Product Groups Does this product represent a product group? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no If yes, list the individual products on the "Supplement to FORM 3" and attach it to this form. Also specify which attribute(s) were used to group the products: <input type="checkbox"/> Color <input type="checkbox"/> Fragrance <input type="checkbox"/> Size	4. Dilution Ratios Is this product sold as a concentrate? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no If yes, complete the dilution ratio table below. Also specify the diluent: _____	5. Product Type Is this a per care product? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Is this a FIRRA registered product? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no Is this product regulated by FDA as an OTC drug? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no																								
6. California Sales Data (Fill out either Option 1 or Option 2)																												
Option 1 - Direct Mass Enter the total pounds of this product or combined sales of this product group that was sold with intention for use in California during Calendar Year 2001: _____ lbs.		Option 2 - Calculated Mass Fill in the table to the right. Note: Provide either density or specific gravity only if product units are reported in volume units, such as fluid ounces.																										
		<table border="1"> <thead> <tr> <th>Product Size</th> <th>Size Units</th> <th>No. Sold in CA</th> <th>Density (units) - or - Specific Gravity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12</td> <td>47,036</td> <td>1.09</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Product Size	Size Units	No. Sold in CA	Density (units) - or - Specific Gravity	1	12	47,036	1.09	2				3				4				5					
Product Size	Size Units	No. Sold in CA	Density (units) - or - Specific Gravity																									
1	12	47,036	1.09																									
2																												
3																												
4																												
5																												
7. Comments: _____																												

C. LABEL

Submit one entire representative label for this product or product group. When submitting by hardcopy, attach the label to this form (see instructions).

Check (✓) if Confidential

FORM 4 - Ingredient Information
(Instructions for completing FORM 4: See back side)

Product Tracking #: 1

A. RESPONSIBLE PARTY & PRODUCT INFORMATION - To be completed by the responsible party.

<p>1. Company Name: <u>Oakdale Roets Company, Inc.</u> Contact Person: <u>John Doe</u> Title: <u>Director, Product Development</u> Phone: <u>(507)555-0612</u> Email: <u>jd@oakdaleproducts.com</u></p>	<p>2. Full Product Name: <u>Poison Oak Shampoo</u></p> <p>3. Product Form: <input checked="" type="checkbox"/> Aerosol Product <input type="checkbox"/> Pump Spray <input type="checkbox"/> Other (specify): <input checked="" type="checkbox"/> Foam <input type="checkbox"/> Gel <input type="checkbox"/> Liquid <input type="checkbox"/> Solid</p> <p>4. Customer Type: <input checked="" type="checkbox"/> Household <input type="checkbox"/> Commercial/Institutional <input type="checkbox"/> Industrial (must = 100) check (✓) all that apply: <u>100</u> % + _____ % + _____ % = <u>100</u> %</p>
--	--

B. INGREDIENTS - To be completed by the company that holds the ingredient information (either the responsible party or formulator).

1. Specific Ingredient Table: Indicate the weight percent (Wt. %) of the following compounds that are contained in the product.

Compound:	1,1,1-Trichloroethane	Parachlorobenzotrifluoride	Menthol	Perchloroethylene	Paradichlorobenzene	Naphthalene	Nitrogen	Wt. % Subtotal
Wt. %:								0
Compound:	Methylene Chloride	Volatile Methyl Siloxanes	HFC-152a	Acetone	Methyl Acetate	Carbon Dioxide	Water	72
Wt. %:								72

2. VOC Specification Table: List all VOCs and all LVP-VOC solvents that comprise at least 0.1 Wt. %. Do not list any exempt compounds, non-solvent LVP-VOCs, inorganics, or fragrances; group these items and any VOCs that individually comprise less than 0.1 Wt. %, as indicated below in the line-item entries.

#	Chemical Name	CAS Number	Trade Name & Manufacturer ¹	Bin # ¹	Weight %
1	Odorless Mineral Spirits	47141657	Shell Sol D38 / Shell Chemical	6	7
2	Propylene Glycol	57556			5.5
3	Isoparaffinic distillate	4742478	Isopar M - Exxon Mobil	16	4
4	Glycerin	56815			1
5					
6					
7					
8					

.....If necessary, list additional ingredients on a separate page; enter the weight percent subtotal from that page on this line.....

Group all other Exempts & non-solvent LVP-VOCs (provide total Wt. %)	= <u>6.3</u>
Group other Inorganics (provide total Wt. %)	= <u>1.5</u>
Group all Fragrance (provide total Wt. %)	= <u>0.9</u>
Group VOCs that are each less than 0.1 Wt. % (provide total Wt. %)	= <u>1.8</u>
Weight % Subtotal =	<u>28</u>
Grand Total (A + B + C must = 100) =	<u>100</u> %

3. Contact Information (if different from above):
 Completed By: _____ Title: _____ Phone: _____
 Formulating Company: _____ Date: _____

¹Completion of these columns is required only if the ingredient is a hydrocarbon solvent, such as mineral spirits, otherwise these columns are optional. See instructions for details.

SAMPLE #2: 3 IN 1 NAIL MIRACLE

To provide help in understanding the following sample forms, this section provides some general information about Product Sample #2.

Background

The Company. Cornstarch Beauty Products, Inc. (CBP) is a retailer owned by a parent company, Total Beauty International, Inc. CBP will be using two different companies (formulators) to complete ingredient information for 7 of their 22 products being submitted for this survey. Although CBP has submitted 22 products, only one product, #8, has been included in detail for this sample.

The Product. 3 in 1 Nail Miracle (Nail Miracle) comes in five colors and is described on the label as a base coat, top coat and polish all in one.

Notable Form Details

Some items from the forms are detailed here for clarity.

FORM 1 – Responsible Party Information

- Although Jane Brown is the contact person, the owner, Diane Alexander has certified the form.

FORM 2 – Source of Ingredient Information

- Item 2 was checked because CBP does not hold the ingredient information for all of the 22 products being submitted.
- Nail Products, USA, Inc. holds the ingredient information for Product Tracking #8, Nail Miracle, as well as, products #5 and #20.
- CBP holds the ingredient information for the remaining product #s not shown on this form.

FORM 3 – Product Information

- A primary category code and two additional category codes have been listed because Nail Miracle has multiple-use claims on the principal display panel.
- Nail Miracle is being reported as a product group because it differs only by color (meeting the criteria for a product group).

Supplement to FORM 3 – Product Group Details

- The individual shades of color for Nail Miracle have been listed on the table because it was reported as a product group on FORM 3.

FORM 4 – Ingredient Information

- CBP initially completed Section A then forwarded the whole FORM 4 to their formulator, Nail Products, USA, Inc., who then completed the ingredient information, in Section B.
- Darren Fletcher, Product Line Manager from the formulating company, completed the ingredient information and mailed FORM 4 directly to ARB.
- Nail Miracle does not contain any hydrocarbon solvents; therefore, no trade names or manufacturers are listed.

Note

It is assumed that CBP sent the "Preliminary Form: Who Must Complete the Survey?" ahead of time. CBP also submitted a product label, Confidential Information Form, and Voluntary Survey Evaluation with these forms, however they are not included in this sample.

Check (✓) if
 Confidential

FORM 1 - Responsible Party Information
 (Instructions for completing FORM 1: See back side)



1. Company Name: Constararch Beauty Products, Inc.

Division Name(s): Constararch Beauty Products

Mailing Address: 12753 Richards St.

City: Rhodes State: NY Zip: 10001

2. Parent Company Name (if applicable): Total Beauty

International, Inc.

Mailing Address: 1000 Main Ave. Ste. 300

City: Minneapolis State: MN Zip: 55400

3. Contact Person: Jane Brown Phone: (730) 555-2731 Fax: (730) 555-2752

Title: Vice President of Marketing Email: janeb@constararchbeauty.com

4. NAICS Code(s): 446120 446191 448310
 (see Attachment C for common codes)

5. Number of products: (enter total number of products and/or product groups submitted) 22

6. Type of Business check (✓) all that apply	7. Gross Annual Receipts For Calendar Year 2001		8. Employees For Calendar Year 2001		9. Contract Employees For Calendar Year 2001	
	check (✓) one	Worldwide check (✓) one	California Only check (✓) one	Worldwide check (✓) one	California Only check (✓) one	
<input type="checkbox"/> Manufacturer/Marketer	<input type="checkbox"/> Less than \$250,000	<input type="checkbox"/> None	<input type="checkbox"/> None	<input type="checkbox"/> None	<input type="checkbox"/> None	
<input type="checkbox"/> Distributor	<input type="checkbox"/> Between \$250,000 and \$1 million	<input type="checkbox"/> 1 to 10	<input type="checkbox"/> 1 to 10	<input type="checkbox"/> 1 to 10	<input type="checkbox"/> 1 to 10	
<input checked="" type="checkbox"/> Retailer	<input type="checkbox"/> Between \$1 million and \$10 million	<input type="checkbox"/> 11 to 100	<input type="checkbox"/> 11 to 100	<input checked="" type="checkbox"/> 11 to 100	<input checked="" type="checkbox"/> 11 to 100	
<input type="checkbox"/> Contract Packager	<input type="checkbox"/> Between \$10 million and \$50 million	<input type="checkbox"/> 101 to 250	<input type="checkbox"/> 101 to 250	<input type="checkbox"/> 101 to 250	<input type="checkbox"/> 101 to 250	
<input type="checkbox"/> Other (specify):	<input checked="" type="checkbox"/> Between \$50 million and \$100 million	<input type="checkbox"/> 251 to 500	<input type="checkbox"/> 251 to 500	<input type="checkbox"/> 251 to 500	<input type="checkbox"/> 251 to 500	
	<input type="checkbox"/> Between \$100 million and \$1 billion	<input type="checkbox"/> 501 to 750	<input type="checkbox"/> 501 to 750	<input type="checkbox"/> 501 to 750	<input type="checkbox"/> 501 to 750	
	<input type="checkbox"/> More than \$1 billion	<input type="checkbox"/> More than 750	<input type="checkbox"/> More than 750	<input type="checkbox"/> More than 750	<input type="checkbox"/> More than 750	

10. Comments:

11. Certification: I am an authorized company representative and hereby certify that all information entered by my company on FORM 1, FORM 2(s), FORM 3(s), Supplement(s) to FORM 1, and FORM 4(s) is complete and accurate to the best of my knowledge and belief.

Name: Piane Alexander Title: Owner

Signature: [Handwritten Signature] Date: January 17, 2003

Check (✓) if Confidential

FORM 2 - Source of Ingredient Information

(Instructions for completing FORM 2: See back side)

Will your company be using a *formulator*? Indicate the source of ingredient information; Check (✓) "no" or "yes" and complete the blanks.

No, my company, _____, the *responsible party*, will not be using a *formulator* to complete ingredient information for any product or product group submitted for this survey.

- OR -

Yes, my company, Cornstarch Beauty Products, Inc., the *responsible party*, will be using a *formulator* to complete ingredient information for one or more products submitted for this survey. List *formulator* contact information below; photocopy sheet as needed.

Product Tracking Number(s):	5	8	20																	
Formulator Company Name:	Nail Products, USA, Inc.																			
Formulator Contact Name:	Darren Fletcher																			
Title:	Product Line Manager																			
Phone:	(330)555-9165																			
Fax:	(330)555-9164																			
Email:	dfletcher@nailusa.com																			
Address:	1371 Chester Ave.																			
City:	Chicago																			
State:	IL																			
Zip:	60607																			

formulator

Product Tracking Number(s):	2	7	21	22																
Formulator Company Name:	Beauty Chemistry																			
Formulator Contact Name:	Monica Ward																			
Title:	Chemist																			
Phone:	(730)555-1279																			
Fax:	(730)555-5749																			
Email:	monica.ward@beautychem.com																			
Address:	300 Franklin Street, Floor 18																			
City:	New York																			
State:	NY																			
Zip:	10014																			

formulator

Product Tracking Number(s):																				
Formulator Company Name:																				
Formulator Contact Name:																				
Title:																				
Phone:																				
Fax:																				
Email:																				
Address:																				
City:																				
State:																				
Zip:																				

formulator

Check (✓) if Confidential

FORM 3 - Product Information
(Instructions for completing FORM 3: See back side)

Product Tracking #: 8

A. RESPONSIBLE PARTY & PRODUCT INFORMATION

1. Company Name: Cornstarch Beauty Products, Inc.
 Contact Person: Jane Brown
 Title: V.P. Marketing
 Phone: (730)555-2731 Email: jane@cornstarchbeauty.com

2. Full Product Name: 3 in 1 Nail Miracle

3. Product Form : Aerosol Product Pump Spray Other (specify):
 Foam Gel
 Liquid Solid

4. Customer Type : Household Commercial/Institutional Industrial (must = 100)
 check (✓) all that apply : 80 % + 20 % + _____ % = 100

B. ADDITIONAL PRODUCT INFORMATION

1. ARB Category Code(s) 41 *If applicable, Additional Category Code(s):* 40 45

2. Relation to Product check (✓) all that apply
 Manufacturer/Marketer
 Distributor
 Retailer
 Contract Packager
 Other (specify): _____

3. Product Groups Does this product represent a product group? yes no
If yes, list the individual products on the "Supplement to FORM 3" and attach it to this form.
 Also specify which attribute(s) were used to group the products:
 Color Fragrance Size

4. Dilution Ratios Is this product sold as a concentrate? yes no
If yes, complete the dilution ratio table below.
 Also specify the diluent: _____

Dilution Mln.	Product		Diluent	
	amount	units	amount	units

5. Product Type Is this a per care product? yes no
 Is this a FIFRA registered product? yes no
 Is this product regulated by FDA as an OTC drug? yes no

6. California Sales Data (Fill out either Option 1 or Option 2)

Option 1 - Direct Mass	Option 2 - Calculated Mass
Enter the total pounds of this product or combined sales of this product group that was sold with intention for use in California during Calendar Year 2001:	Fill in the table to the right. Note: Provide either density or specific gravity only if product units are reported in volume units, such as fluid ounces.
<u>70,023</u> lbs.	

7. Comments: _____

If reported by volume, provide either: Density (units) - or - Specific Gravity

C. LABEL

Submit one entire representative label for this product or product group. When submitting by hardcopy, attach the label to this form (see instructions).

Supplement to FORM 3 - Product Group Details

Product Tracking #: 8

The table below has been provided *only* for those companies that have grouped products together for the purposes of this survey (see FORM 3, section B, box 3).

1. Copy the following from FORM 3:

- Company Name: Cornstarch Beauty Products, Inc.

- Full product name representing this product group: 3 in 1 Nail Miracle

- Product Tracking #: *place in box, upper right corner of this page.*

2. Complete the following columns according to the method used to group the products (by color, fragrance, and/or size), which is also indicated by checking the attribute box(es) on FORM 3. Submit one completed copy of this page for each FORM 3 that represents a product group.

Individual Product Name	Color (if applicable)	Fragrance (if applicable)	Size and units (if applicable)
3 in 1 Nail Miracle	Red		
"	Blue		
"	Pink		
"	Purple		
"	Clear		

More products to list? Photocopy this page as needed.

Check (✓) if Confidential

FORM 4 - Ingredient Information
(Instructions for completing FORM 4: See back side)

Product Tracking #: 8

A. RESPONSIBLE PARTY & PRODUCT INFORMATION - To be completed by the responsible party.

1. Company Name: Comstarch Beauty Products, Inc.
 Contact Person: Jane Brown
 Title: V.P. Marketing
 Phone: (330)555-2731 Email: jane@comstarchbeauty.com

2. Full Product Name: 3 in 1 Nail Miracle

3. Product Form : Aerosol Product Pump Spray Other (specify):
 Foam Gel
 Liquid Solid

4. Customer Type : Household Commercial/Institutional Industrial (must = 100)
 check (✓) all that apply: 80 % + 20 % + _____ % = 100 %

B. INGREDIENTS - To be completed by the company that holds the ingredient information (either the responsible party or formulator).

1. Specific Ingredient Table: Indicate the weight percent (Wt. %) of the following compounds that are contained in the product:

Compound	1,1,1-Trichloroethane	Parachlorobenzotrifluoride	Menthol	Perchloroethylene	Paradichlorobenzene	Naphthalene	Nitrogen	Wt. % Subtotal
Compound :								<u>0.0</u> A
Wt. % :								
Compound :	Methylene Chloride	Volatile Methyl Siloxanes	HFC-152a	Acetone	Methyl Acetate	Carbon Dioxide	Water	<u>0.0</u> B
Wt. % :								

2. VOC Speciation Table: List all VOCs and all LVP-VOC solvents that comprise at least 0.1 Wt. %. Do not list any exempt compounds, non-solvent LVP-VOCs, inorganics, or fragrances; group these items and any VOCs that individually comprise less than 0.1 Wt. %, as indicated below in the line-item entries.

Chemical Name	CAS Number	Trade Name & Manufacturer ¹	Bin # ¹	Weight %
<u>Ethyl Acetate</u>	<u>141786</u>			<u>22</u>
<u>Butyl Acetate</u>	<u>123864</u>			<u>30</u>
<u>Isopropyl Alcohol</u>	<u>67630</u>			<u>12.3</u>
<u>Dibutyl Phthalate</u>	<u>84662</u>			<u>5.7</u>

If necessary, list additional ingredients on a separate page; enter the weight percent subtotal from that page on this line....

Group all other Exempts & non-solvent LVP-VOCs (provide total Wt. %) = 17.8

Group other Inorganics (provide total Wt. %) = 11.0

Group all Fragrance (provide total Wt. %) = 1.2

Weight % Subtotal = 100 C

Grand Total (A + B + C must = 100) = 100 %

3. Contact Information (if different from above):
 Completed By: Barren Fletcher Group VOCs that are each less than 0.1 Wt. % (provide total Wt. %) =
 Title: Product Line Manager Phone: (330)555-7165
 Formulating Company: Nail Products, USA, Inc. Date: 1-23-03 Grand Total (A + B + C must = 100) = 100 %

Completion of these columns is required only if the ingredient is a hydrocarbon solvent, such as mineral spirits, otherwise these columns are optional. See instructions for details.

**PART VII:
Category Descriptions &
Related Definitions**

CATEGORY DESCRIPTIONS

CATEGORY DESCRIPTIONS

*These descriptions are for survey purposes only, regulatory definitions may have been modified.
Do not refer to the current regulation as a reference for this survey.*

(Code)

- (01) **Adhesive Remover** means a product designed to remove adhesives, caulk, sealants, or other bonding materials.
Includes, but not limited to: Products that remove stickers, labels, tape, decals, gums, or glue from either a specific substrate or a variety of substrates
Excludes:* **Multi-purpose Remover, Packaged Solvent**, products designed or marketed for use as a **Graffiti Remover**, or any adhesive remover associated with nail care
- (02) **Anti-Static Product** means a product designed to be applied to fabrics and/or hard surfaces to lessen the build-up of static electricity.
Includes, but not limited to: Anti-cling sprays for clothing, window coverings, and upholstery, and sprays for carpets and work surfaces around computers or other sensitive electronic equipment
Excludes:* **Electronic Cleaner**
- (03) **Body Wipes** means a presoaked, natural or synthetic towelette used to cleanse body or hands.
Includes, but not limited to: Baby or adult wipes that are designed for cleansing during diaper changing, hand cleansing towelettes used to rid the hands of food debris, and pet wipes
Excludes: **Astringent/Toner, Personal Fragrance Product, Medicated Astringent/Medicated Toner**, dry cloth products that do not have chemicals added, acne treatment products, nail polish removers, or products designed specifically for cleansing the human face
- (04) **Contact Adhesive** means a non-aerosol adhesive that: (A) is designed for application to both surfaces to be bonded together, and (B) is allowed to dry before the two surfaces are placed in contact with each other, and (C) forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other, and (D) does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces.
Excludes: **Aerosol Adhesive**, rubber cements that are primarily intended for use on paper substrates, and products that weigh more than one pound or consist of more than 16 fluid ounces (less packaging)
- (05) **Electronic Cleaner** means a product designed for the removal of contaminants such as dirt, grease, grime, moisture, dust, flux, light oil, and/or oxides from electrical components.
Includes, but not limited to: Contact cleaner, anti-static cleaner, and other products used on electric motors, circuit boards, electricity panels, generators, keyboards, or other such precision instruments
Excludes:* **General Purpose Cleaner, Dusting Aid, Engine Degreaser, Pressurized Gas Duster, and Anti-Static Product**
- (06) **Fabric or Leather Waterproofer** means a product designed and labeled to waterproof, repel, or seal water from fabric substrates, leather substrates, or associated stitching that is not intended to resist stains.
Includes, but not limited to: Waterproofer, water repellants, or water sealants used on fabric or leather products such as: footwear or gloves; sports, equestrian, or motorcycle equipment; camping, hiking, backpacking, hunting, or fishing gear; car or boat covers; sails for sailboats; or other fabric, canvas, or leather goods
Excludes:* **Footwear Care Product, Leather Care Product, Vinyl/Fabric/Leather/Polycarbonate Coating, or Fabric Protectant** such as combination products intended to repel both stain and water from fabric goods, such as footwear, clothing, car seats, and furniture upholstery

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(Code)

- (07) **Footwear Care Product** means a product designed to be applied primarily to footwear to maintain, enhance, clean, protect, or modify the appearance, durability, fit, or flexibility of footwear, or is a deodorant-only product exclusively for footwear.
- Includes, but not limited to:* Polishes, shines, creams, waxes, pastes, liquids, lotions, oils, balms, conditioners, renewers, moisturizers, restorers, renovators, refinishers, scuff coverers and removers, dyes, tints, whiteners, brighteners, dressings, preparers, patchers, cleaners, soaps, shampoos, preservers, wipes, footwear stretching products, and footwear softening products
- Excludes*:* **Fabric or Leather Waterproofer, Leather Care Product, Personal Hygiene Product, Personal Foaming Product, Fabric Protectant, Vinyl/Fabric/Leather/Polycarbonate Coating, Rubber and Vinyl Protectant, General Purpose Adhesive,** or combination foot and footwear deodorant
- (08) **General Purpose Degreaser** means any product designed to remove or dissolve grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive or miscellaneous metallic parts.
- Excludes*:* **Engine Degreaser, General Purpose Cleaner, Adhesive Remover, Electronic Cleaner, Multi-purpose Remover, Packaged Solvent, Metal Polish/Cleanser,** products used exclusively in "solvent cleaning tanks or related equipment," or products that are (A) sold exclusively to establishments which manufacture or construct goods or commodities; and (B) labeled "not for retail sale". "Solvent cleaning tanks or related equipment" includes, but is limited to, cold cleaners, vapor degreasers, conveyORIZED degreasers, film cleaning machines, or products designed to clean miscellaneous metallic parts by immersion in a container
- (09) **Graffiti Remover** means a product designed primarily to remove spray paint or ink graffiti from a variety of surfaces.
- Excludes*:* **Paint Remover or Stripper, Multi-purpose Remover, or Packaged Solvent**
- (10) **Insect Repellent: non-aerosol** means a *pesticide* product designed to be applied to skin, hair, or attire in order to prevent contact with or repel biting insects or arthropods.
- Excludes:* **Aerosol insect repellent**
- (11) **Jewelry Cleaner** means a product designed specifically for jewelry and/or watch cleaning that removes tarnish, dirt, or grime by dissolving, emulsifying, or chemically reducing the adherent matter by methods of direct application or immersion in the cleaning solution.
- Excludes:* **Metal Polish/Cleanser**
- (12) **Leather Care Product** means a product designed to be applied primarily to leather articles or components, other than footwear, to maintain, enhance, clean, protect, or modify the appearance, durability, fit, flexibility, or odor of the leather.
- Includes, but not limited to:* Leather cleaners, conditioners, oils, balms, renewers, moisturizers, restorers, renovators, refinishers, scuff coverers and removers, polishes, shines, creams, waxes, pastes, liquids, lotions, wipes, dyes, tints, dressings, preparers, patchers, soaps, shampoos, deodorizers, preservers, leather stretching products, leather softening products, and protectants against dirt or stain designed exclusively for leather and associated stitching. These products may be applied to items such as leather clothing, leather wallets, leather purses, leather handbags, leather motor vehicle seats, leather upholstery, leather motorcycle accessories, leather equestrian equipment, and leather sports equipment
- Excludes*:* **Footwear Care Product, Fabric or Leather Waterproofer, Vinyl/Fabric/Leather/Polycarbonate Coating, or Rubber and Vinyl Protectant**

CATEGORY DESCRIPTIONS

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(Code)

- (13) **Multi-purpose Remover** means a product designed to be used for more than one purpose, such as cleaning, removing, and/or degreasing of a variety of substrates.
Includes, but not limited to: Products that claim to remove more than one contaminant including: grease, gum, crayon, lipstick, latex paint drips, shoe polish, oil, asphalt, adhesives, labels, stickers, markers, candle wax, and products labeled as surface preparation cleaners or equipment cleaners, or products used to prepare automobiles for sale
Excludes:* **Packaged Solvent**, products labeled primarily as **Adhesive Remover, Electronic Cleaner, Graffiti Remover, Solvent Parts Cleaner, Brush Cleaner, Engine Degreaser, General Purpose Cleaner, General Purpose Degreaser, Paint Remover or Stripper, Paint Thinner**, products used at analytical, educational, research, scientific, or other laboratories, and solvents used in cold cleaners, vapor degreasers, conveyORIZED degreasers, or film cleaning machines
- (14) **Packaged Solvent** means any organic solvent, sold to household or institutional users, that is typically used for thinning, dispersing, or dissolving other organic materials, but does not necessarily provide specific use claims on the *principal display panel*.
Includes, but not limited to: Mineral spirits, denatured alcohol, methyl ethyl ketone, turpentine, toluene, xylene, acetone, and VM & P Naphtha
Excludes:* **Multi-purpose Remover, Adhesive Remover, Paint Remover or Stripper, Paint Thinner**, products used at analytical, educational, research, scientific, or other laboratories, and solvents used in cold cleaners, vapor degreasers, conveyORIZED degreasers, or film cleaning machines
- (15) **Personal Foaming Product** means a *foam* product designed for external use on the body that cleans and/or moisturizes the skin.
Includes, but not limited to: Foaming facial cleanser, body wash, hand cleanser, body mousse, and lotion
Excludes:* **Personal Hygiene Product, Shaving Gel, Shaving Cream, Astringent/Toner, Medicated Astringent/Medicated Toner**, bar soap, products for hair care or hair removal
- (16) **Personal Hygiene Product** means a product designed to be applied externally to human skin, footwear, or undergarments to deodorize, alleviate or retard fungal or bacterial growth, help relieve irritation, absorb excess moisture, or to relieve the discomfort of perspiring skin.
Includes, but not limited to: Products for feminine hygiene that do not require rinsing, products designed to eradicate or ameliorate athlete's foot, jock itch, ringworm, redness, soreness, cracked, or scaly skin, and combination foot and footwear deodorants
Excludes:* **Footwear Care Product, Personal Foaming Product, Air Freshener, Antiperspirant, Deodorant, Personal Fragrance Product**, other products in *solid* or *semisolid* form (such as powders, creams and gels), or deodorant-only products labeled exclusively for footwear
- (17) **Shaving Gel** means an *aerosol* product which dispenses a self-foaming gel intended to be used with a blade, cartridge razor or other shaving system in the removal of facial or other body hair.
Excludes: **Shaving Cream** and non-aerosol shaving products
- (18) **Solvent Parts Cleaner: non-aerosol** means a product designed to dissolve grease, dirt, and other contaminants solely from miscellaneous metallic parts.
Excludes:* **Multi-purpose Remover, Jewelry Cleaner, Electronic Cleaner, aerosol solvent parts cleaner, Metal Polish/Cleanser**, solvents used in cold cleaners, vapor degreasers, conveyORIZED degreasers, or film cleaning machines

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(Code)

- (19) **Wood Cleaner** means a product designed primarily for the cleaning of wooden materials such as decking, flooring, logs, cabinetry, wooden furniture, or other wooden objects.

Includes, but not limited to: Deck cleaners, log cleaners, and multi-purpose wood cleaners

Excludes: *Dusting Aid, General Purpose Cleaner, Furniture Maintenance Product, Floor Wax Stripper, or products designed primarily for either preserving wood, coloring wood, or for waxing, polishing, or conditioning*

FABRIC CARE

- (20) **Fabric Refresher** means a product designed primarily for the purpose of neutralizing or eliminating odor on soft, household surfaces, rugs, carpeting, draperies, bedding, automotive interiors, clothing and/or on household furniture or objects upholstered or covered with fabrics such as wool, cotton, nylon, or other synthetic fabrics.

Includes, but not limited to: Odor removers, odor eliminators, fabric deodorizers, odor erasers, odor controllers, odor digesters, odor neutralizers, odor conquerors, odor counteractants, and odor control foggers

Excludes:* *Footwear Care Product, Air Freshener, Carpet and Upholstery Cleaner, or Spot Remover*

- (21) **In-dryer Fabric Care** means a product designed to clean and/or freshen "dry clean only" and/or gentle, handwashable fabrics in residential dryers. **In-dryer Fabric Care** products may remove wrinkles, clean away odors, remove stains, and protect fabrics from shrinking, fading, or stretching.

Excludes: *Dry Cleaning Fluid, Fabric Softener, or Spot Remover*

- (22) **Wrinkle-releasing Spray** means a product designed to be used on washable and/or dry clean only fabrics that will relax and/or smooth the fabric to help remove wrinkles, not requiring the use of an iron.

Includes, but not limited to: Wrinkle removers

Excludes: *Laundry Starch Product*

HAIR CARE

- (23) **Bleach/Lightener** means a product that partially or totally removes the natural pigment or artificial color from the hair.

Includes, but not limited to: Color lifters, leave-in highlighting treatments, shampoo bleaches and/or products used on facial and/or body hair

- (24) **Conditioner** means a product that is applied to the hair and is used primarily to deposit protein and/or moisturizer, help restore hair strength, give hair body, protect hair against possible damage, detangle, improve the texture, and/or lubricate dry hair and scalp.

Includes, but not limited to: Sprays, creams, rinses, and leave-in conditioners

Excludes:* *Hair Shine, Hair Styling Product, or Hair Color Product*

- (25) **Hair Color Product: Temporary** means a product that does not penetrate the hair but applies color by means such as using dyes with large molecules that cannot penetrate the hair cuticle, high molecular weight ionic *colorants*, or large cationic basic dyes that leave color on the surface of the hair. Temporary hair color usually is removed after one shampoo.

Includes, but not limited to: Preformed dyes, hair coloring mousse, color sticks, color crayons, color rinses, hair color sprays, and colored hair thickeners used to cover thinning and/or balding areas

CATEGORY DESCRIPTIONS

*These descriptions are for survey purposes only, regulatory definitions may have been modified.
Do not refer to the current regulation as a reference for this survey.*

(Code)

- (26) **Hair Color Product: Semi-permanent** means a product that deposits color on the hair cuticle and is intended to last through more than one shampoo by partially penetrating the hair shaft and staining the cuticle layer. Semi-permanent hair color fades with each shampoo.
Includes, but not limited to: Level 1 colors, and products used for beards, body, or facial hair
Excludes: Progressive dyes
- (27) **Hair Color Product: Demi-permanent** means a product that colors the hair through the use of methods such as oxidative dye systems that penetrate the hair cuticle to deposit coloring molecules within or on the hair cuticle without the use of ammonia. Products in this category will eventually wash out by shampooing, however lasts appreciably longer than a semi-permanent hair color.
Includes, but not limited to: Level 2 colors, and products used for beards, body, or facial hair
- (28) **Hair Color Product: Permanent** means a product that colors the hair through the use of methods such as oxidative or progressive dye systems that either lift or penetrate the hair cuticle to allow a change in the hair proteins, alter melanin and/or deposit coloring molecules trapping the molecules beneath the hair cuticle. Permanent hair color will not wash out by shampooing.
Includes, but not limited to: Level 3 colors, progressive hair dyes that develop color gradually in the hair with continued use and/or adsorb more with each application, and products used for beards, body, or facial hair
- (29) **Hair Growth Retardant/Inhibitor** means a product used to slow or retard and/or inhibit the growth of hair.
Includes, but not limited to: Products used to inhibit hair growth on all parts of the body, such as, back, shoulder, face, arms, chest, forearms, legs, upper lip, abdomen, bikini line, and/or underarms
- (30) **Hair Shine** means a product designed for the primary purpose of creating shine when applied to the hair and is not intended to impart hold to the hair or a style.
Includes, but not limited to: Multiple-use products designed primarily to impart sheen to the hair
Excludes:* **Conditioner, Hair Styling Product, Hair Color Product**, or products whose primary purpose is to condition or hold the hair
- (31) **Hair Styling Product: Liquid** means a *liquid* product that visually flows at room temperature and is distributed through the hair by the hands to aid in styling, holding, and/or sculpting the hair.
Includes, but not limited to: *Liquid* gels, glues, and lotions that flow
Excludes:* **Hair Styling Product: Mousse, Semisolid, Solid, or Spray**
- (32) **Hair Styling Product: Mousse** means a hair styling *foam* product designed to facilitate styling of a coiffure and provide limited holding power.
Includes, but not limited to: Pre-foaming and post-foaming hair styling products
Excludes:* **Hair Styling Product: Liquid, Semisolid, Solid, or Spray, Personal Foaming Product**, and non-foaming hair styling products
- (33) **Hair Styling Product: Semisolid** means a product that, at room temperature, will not pour, but will spread or deform easily, and is manually applied and distributed through the hair by the hands to aid in styling, holding, and/or sculpting the hair. This category may contain resin or other compounds that impart hold or help retain a hairstyle.
Includes, but not limited to: Highly viscous hair gels, pastes, lotions, glues, and creams
Excludes:* **Hair Shine, or Hair Styling Product: Liquid, Mousse, Solid, or Spray**

*These descriptions are for survey purposes only, regulatory definitions may have been modified.
Do not refer to the current regulation as a reference for this survey.*

(Code)

- (34) **Hair Styling Product: Solid** means a *solid* product that is manually applied and distributed through the hair by the hands to aid in styling, holding, and/or sculpting the hair.
Includes, but not limited to: Solid pomades and hair wax
Excludes: Hair Shine, or Hair Styling Product: Liquid, Mousse, Semisolid, or Spray*
- (35) **Hair Styling Product: Spray** means a spray product designed primarily for the purpose of imparting sufficient rigidity to establish or retain a style and/or coiffure for a period of time.
Includes, but not limited to: Hairspray, finishing spray, lacquer, spritz, spray gel, spray wax, and other products that can be applied to damp or dry hair
Excludes: Hair Styling Product: Liquid, Mousse, Semisolid, or Solid, Hair Shine, or Hair Color Product*
- (36) **Hair Tonic/Hair Restorer** means a product that is applied externally and is used to promote hair growth, prevent or reduce hair loss, improve hair and/or scalp health, or is used to invigorate, stimulate, or nourish hair, hair follicles, or the scalp.
Includes, but not limited to: Hair tonics, hair growth promoters, root stimulators, and hair-restorers
Excludes: Orally ingested products, Hair Color Product: Temporary, Shampoo, Conditioner, or Hair Styling Product: Spray, Liquid, Mousse, Semisolid, or Solid*
- (37) **Shampoo** means a product formulated primarily for cleansing the hair and scalp.
Includes, but not limited to: Rinse-off, dandruff, dry, and foam shampoos
Excludes: Hair Tonic/Hair Restorer, or shampoo-in products that change or alter hair color*
- (38) **Other Hair Care Products** means any other product that is externally applied to the hair on the scalp, face, or body to enhance or change the appearance of the hair that does not fit a definition above.
Excludes: Permanents/perms, hair relaxers/straighteners, hair removers/depilatories, or appliances and mechanical devices such as curlers, combs, brushes, or dryers

NAIL CARE

- (39) **Artificial Nail, Wrap, or Nail Glue Remover** means a product designed to remove sculptured nails, acrylic nails, artificial nails, nail extensions, nail tips, nail glue/adhesives, or nail wraps.
Excludes: Nail Polish Remover
- (40) **Base Coat/Undercoat** means a clear or colored coating applied to natural or artificial nails with the purpose of optimizing or preparing the surface for subsequent application of nail polish.
Includes, but not limited to: Primers, ridge fillers, and nail polish bonders
Excludes: Nail Polish*
- (41) **Nail Polish** means a clear or colored coating applied to natural or artificial nails for the purpose of imparting shine, polish, definition, color, or texture.
Includes, but not limited to: Lacquers and enamels
Excludes: Top Coat, Base Coat/Undercoat, or Nail Treatment Product*
- (42) **Nail Polish Thinner** means a product formulated to reduce the viscosity of nail polish.
Excludes: Nail Polish Remover or Paint Thinner

CATEGORY DESCRIPTIONS

*These descriptions are for survey purposes only, regulatory definitions may have been modified.
Do not refer to the current regulation as a reference for this survey.*

(Code)

- (43) **Nail Product Drying Enhancer** means a product designed to reduce the standard drying time of a nail care product after it has been applied.
Includes, but not limited to: Activators, nail polish dryers, nail glue and adhesive dryers
Excludes: Nail polish drying machines
- (44) **Nail Treatment Product** means a product applied to the bare, natural nail with one or more of the following purposes: strengthening, nourishing, hardening, thickening, moisturizing, conditioning, hydrating, treating, or enhancing the appearance of the nail.
Includes, but not limited to: Conditioners, strengtheners, growth fortifiers, and stain removers
Excludes:* **Base Coat/Undercoat**
- (45) **Top Coat** means a coating applied over nail polish for the purpose of protecting the polish, imparting shine, extending wear, or increasing durability of a manicure.
Excludes:* **Nail Polish**

TOILET/URINAL CARE

- (46) **Toilet or Urinal Cleaner** means a product that rests within, drips into or can be poured into a toilet bowl, toilet tank, or urinal to chemically clean or discourage the buildup of grime, stains, and/or residues.
Includes, but not limited to: Toilet bowl cleaners and in-tank cleaners
Excludes: **Bathroom and Tile Cleaner, General Purpose Cleaner,** and combination cleaning/deodorizing products
- (47) **Toilet or Urinal Deodorizer** means a non-aerosol product that either rests within or drips into a toilet or urinal and is used primarily to deodorize or impart a pleasing or masking scent.
Includes, but not limited to: Toilet/urinal blocks and liquid drip toilet deodorizers
Excludes: Toilet/urinal cleaners or combination cleaner/deodorizers, **aerosol Air Freshener,** and impregnated fabric or cardboard air fresheners
- (48) **Toilet/Urinal Cleaner and Deodorizer** means a product designed to both clean and deodorize toilets or urinals. These products may rest within, drip into or be poured into the toilet bowl, toilet tank, or urinal. These products may remove or discourage the buildup of grime, stains, and/or residues, as well as impart a pleasing or masking scent.
Includes, but not limited to: Toilet or urinal combination cleaner/deodorizers
Excludes: **Air Freshener, Bathroom and Tile Cleaner, General Purpose Cleaner,** and products designed exclusively to clean

RELATED DEFINITIONS

These definitions are for survey purposes only, some definitions differ from current regulatory definitions. Do not refer to the current regulation as a reference for this survey.

Aerosol Adhesive¹ means any adhesive packaged as an aerosol product in which the spray mechanism is permanently housed in a nonrefillable can designed for hand-held application without the need for ancillary hoses or spray equipment. Aerosol adhesives include special purpose spray adhesives, mist spray adhesives, and web spray adhesives.

Aerosol Product means a pressurized spray system that dispenses product ingredients by means of a propellant or mechanically induced force. "Aerosol Product" does not include *Pump Spray* or *Foam*.

Air Freshener¹ means any consumer product including, but not limited to, sprays, wicks, powders, and crystals, designed for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. "Air Freshener" includes dual purpose air freshener/disinfectant products. "Air Freshener" does not include products that are used on the human body, or products that function primarily as cleaning products as indicated on a product label or advertisement.

Antiperspirant¹ means any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to reduce perspiration in the human axilla by at least 20 percent in at least 50 percent of a target population.

ASTM¹ means the American Society for Testing and Materials.

Astringent/Toner¹ means any product not regulated as a drug by the United States Food and Drug Administration (FDA) which is applied to the skin for the purpose of cleaning or tightening pores. This category also includes clarifiers and substrate-impregnated products. This category does not include any hand, face, or body cleaner or soap product, "Medicated Astringent/Medicated Toner", "Personal Fragrance Product", cold cream, lotion, or antiperspirant.

Bathroom and Tile Cleaner¹ means a product designed to clean tile or surfaces in bathrooms. "Bathroom and Tile Cleaner" does not include products specifically designed to clean toilet bowls or toilet tanks.

Brush Cleaner means any product designed and specifically labeled for removing paints and coating from painting tools including, but not limited to, brushes, rollers, roller trays, and other paints containers. "Brush Cleaner" does not include *Paint Thinner*.

Carpet and Upholstery Cleaner¹ means a cleaning product designed for the purpose of eliminating dirt and stains on rugs, carpeting, and the interior of motor vehicles and/or on household furniture or objects upholstered or covered with fabrics such as wool, cotton, nylon or other synthetic fabrics. "Carpet and Upholstery Cleaner" includes, but is not limited to, products that make fabric protectant claims. "Carpet and Upholstery Cleaner" does not include "General Purpose Cleaners", "Spot Removers", vinyl or leather cleaners, dry cleaning fluids, or products designed exclusively for use at industrial facilities engaged in furniture or carpet manufacturing.

Colorant¹ means any pigment or coloring material used in a consumer product for an aesthetic effect, or to dramatize an ingredient.

¹This wording is exactly as it appears in The California Consumer Products Regulation (Title 17, California Code of Regulations, Sections 94500-94506.5, 94507-94517, or 94520-94528).

RELATED DEFINITIONS

These definitions are for survey purposes only, some definitions differ from current regulatory definitions. Do not refer to the current regulation as a reference for this survey.

Commercial Product, for the purposes of this survey, has the same definition as "Institutional Product". See "Institutional Product" definition.

Concentrate means a product sold in a condensed form, that has usage instructions on the label that direct the end user to dilute the product with a diluent, such as water or another solvent.

*Consumer*¹ means any person who seeks, purchases, or acquires any consumer product for personal, family, household, or institutional use. Persons acquiring a consumer product for resale are not "consumers" for that product.

Consumer Product means a chemically formulated product used by household and institutional consumers including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings.

*Container/Packaging*¹ means the part or parts of the consumer or institutional product which serve only to contain, enclose, incorporate, deliver, dispense, wrap or store the chemically formulated substance or mixture of substances which is solely responsible for accomplishing the purposes for which the product was designed or intended. "Container/Packaging" includes any article onto or into which the principal display panel and other accompanying literature or graphics are incorporated, etched, printed or attached.

Contract Employee means a person hired by a company to sell that company's goods or products for an agreed upon commission or fee.

Contract Packager means a company/person that manufactures or packages products for another company.

*Deodorant*¹ means any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to minimize odor in the human axilla by retarding the growth of bacteria which cause the decomposition of perspiration.

Diluent means a substance, such as water or another solvent, that is used to dilute a concentrate prior to use as indicated on the label.

Distributor means a company/person to whom a consumer product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.

*Dry Cleaning Fluid*¹ means any non-aqueous liquid product designed and labeled exclusively for use on: (1) fabrics which are labeled "for dry clean only", such as clothing or drapery; or (2) "S-coded" fabrics. "Dry Cleaning Fluid" includes, but is not limited to, those products used by commercial dry cleaners and commercial businesses that clean fabrics such as draperies at the customer's residence or work place. "Dry Cleaning Fluid" does not include "Spot Remover" or "Carpet and Upholstery Cleaner". For the purposes of this definition, S-coded fabric means an upholstery fabric designed to be cleaned only with water-free spot cleaning products as specified by the Joint Industry Fabric Standards Committee."

These definitions are for survey purposes only, some definitions differ from current regulatory definitions. Do not refer to the current regulation as a reference for this survey

Dusting Aid¹ means a product designed to assist in removing dust and other soils from floors and other surfaces without leaving a wax or silicone based coating. "Dusting Aid" does not include products with consist entirely of compressed gases for use in electronic or other specialty areas.

Engine Degreaser¹ means a cleaning product designed to remove grease, grime, oil and other contaminants from the external surfaces of engines and other mechanical parts.

Fabric Protectant¹ means a product designed to be applied to fabric substrates to protect the surface from soiling from dirt and other impurities or to reduce absorption of liquid into the fabric's fibers. "Fabric Protectant" does not include waterproofers, products designed for use solely on leather, or products designed for use solely on fabrics which are labeled "for dry clean only" and sold in containers of 10 fluid ounces or less.

Fabric Softener means a product added to the final rinse cycle or dryer during laundering to make fabrics softer and fluffier, decrease static cling, wrinkling, and drying time, impart a pleasant fragrance and make ironing easier. "Fabric Softener" includes fabric conditioners.

Floor Wax Stripper¹ means a product designed to remove natural or synthetic floor polishes or waxes through breakdown of the polish or wax polymers, or by dissolving or emulsifying the polish or wax. "Floor Wax Stripper" does not include aerosol floor wax strippers or products designed to remove floor wax solely through abrasion.

Foam means a substance that upon being dispensed from its container or upon contact with a surface, or as a result of exposure to body heat or the atmosphere, is comprised of two phases: a dispersed gas or vapor phase, and a continuous liquid phase, therein creating a mass of gaseous cells that is separated by thin films of liquid and formed by the juxtaposition of bubbles. "Foam" does not include substances that become foam solely from shearing action after being dispensed, such as rubbing the product on the skin or other agitation.

Formulator means a company/person, other than the *responsible party*, that holds the ingredient information for a product.

Fragrance¹ means a substance or complex mixture of aroma chemicals, natural essential oils, and other functional components with a combined vapor pressure not in excess of 2 mm of Hg at 20°C, the sole purpose of which is to impart an odor or scent, or to counteract a malodor.

Furniture Maintenance Product¹ means a wax, polish, conditioner, or any other product designed for the purpose of polishing, protecting or enhancing finished wood surfaces other than floors. "Furniture Maintenance Product" does not include dusting aids, products designed solely for the purpose of cleaning, and products designed to leave a permanent finish such as stains, sanding sealers and lacquers.

Gel means a substance or mixture of substances that, after being dispensed or as used, is a colloid in which the dispersed phase has combined with the continuous phase to produce a semisolid material, such as jelly.

¹This wording is exactly as it appears in The California Consumer Products Regulation (Title 17, California Code of Regulations, Sections 94500-94506.5, 94507-94517, or 94520-94528).

RELATED DEFINITIONS

These definitions are for survey purposes only, some definitions differ from current regulatory definitions. Do not refer to the current regulation as a reference for this survey.

General Purpose Adhesive¹ means any non-aerosol adhesive designed for use on a variety of substrates. "General Purpose Adhesive" does not include (A) contact adhesives, (B) construction, panel, and floor covering adhesives, (C) adhesives designed exclusively for application on one specific category of substrates (i.e., substrates that are composed of similar materials, such as different types of metals, paper products, ceramics, plastics, rubbers, or vinyls), or (D) adhesives designed exclusively for use on one specific category of articles (i.e. articles that may be composed of different materials but perform a specific function, such as gaskets, automotive trim, weather-stripping, or carpets).

General Purpose Cleaner¹ means a product designed for general all-purpose cleaning, in contrast to cleaning products designed to clean specific substrates in certain situations. "General Purpose Cleaner" includes products designed for general floor cleaning, kitchen or countertop cleaning, and cleaners designed to be used on a variety of hard surfaces.

Gross Annual Receipts means the overall total income of a company before expenses are deducted.

Hairspray¹ means a consumer product designed primarily for the purpose of dispensing droplets of a resin on and into a hair coiffure which will impart sufficient rigidity to the coiffure to establish or retain the style for a period of time.

Household Product¹ means any consumer product that is primarily designed to be used inside or outside of living quarters or residences that are occupied or intended for occupation by individuals, including the immediate surroundings.

Hydrocarbon Solvent means a single compound, such as hexane, or a complex mixture of compounds such as alkanes, branched alkanes, cycloalkanes, and aromatics that contain only the elements hydrogen and carbon (e.g. mineral spirits, naphtha, petroleum distillates, xylenes, stoddard solvent, aromatic 100/150). Organic compounds containing other elements, such as oxygen (e.g. alcohols and glycol ethers) are not hydrocarbon solvents.

Independently Owned means controlled by one self. Not dependent on another for financial support.

Industrial Product means a consumer product that is incorporated into or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment.

Institutional Product or Industrial and Institutional (I&I) Product¹ means a consumer product that is designed for use in the maintenance or operation of an establishment that: (A) manufactures, transports, or sells goods or commodities, or provides services for profit; or (B) is engaged in the nonprofit promotion of a particular public, educational, or charitable cause. "Establishments" include, but are not limited to, government agencies, factories, schools, hospitals, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts centers, health clubs, theaters, or transportation companies. "Institutional Product" does not include household products and products that are incorporated into or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment.

Label¹ means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product or consumer product package, for purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.

These definitions are for survey purposes only, some definitions differ from current regulatory definitions. Do not refer to the current regulation as a reference for this survey

Laundry Starch Product¹ means a product that is designed for application to a fabric, either during or after laundering, to impart and prolong a crisp, fresh look and may also act to help ease ironing of the fabric. "Laundry Starch Product" includes, but is not limited to, fabric finish, sizing, and starch.

Liquid means a substance or mixture of substances, including those impregnated into a wipe, which is capable of a visually detectable flow as determined under ASTM D-4359-90. "Liquid" does not include powders or other materials that are composed entirely of solid particles.

Low Vapor Pressure Volatile Organic Compounds (LVP-VOC)¹ means a chemical "compound" or "mixture" that contains at least one carbon atom and meets one of the following:

- (A) has a vapor pressure less than 0.1 mm Hg at 20°C, as determined by ARB Method 310; or
- (B) is a chemical "compound" with more than 12 carbon atoms, or a chemical "mixture" comprised solely of "compounds" with more than 12 carbon atoms, and the vapor pressure is unknown; or
- (C) is a chemical "compound" with a boiling point greater than 216°C, as determined by ARB Method 310; or
- (D) is the weight percent of a chemical "mixture" that boils above 216°C, as determined by ARB Method 310.

For the purposes of the definition of LVP-VOC, chemical "compound" means a molecule of definite chemical formula and isomeric structure, and chemical "mixture" means a substrate comprised of two or more chemical "compounds".

Manufacturer means a company/person that imports, manufactures, assembles, produces, packages, repackages, or relabels a consumer product.

Medicated Astringent/Medicated Toner¹ means any product regulated as a drug by the Food and Drug Administration (FDA) which is applied to the skin for the purpose of cleaning or tightening pores. "Medicated Astringent/Medicated Toner" includes, but is not limited to, clarifiers and substrate-impregnated products. "Medicated Astringent/Medicated Toner" does not include hand, face, or body cleaner or soap products, "Personal Fragrance Products", "Astringent/Toner," cold cream, lotion, antiperspirants, or products that must be purchased with a doctor's prescription.

Marketer means a company/person that contracts out the manufacturing of their products.

Metal Polish/Cleanser¹ means any product designed primarily to improve the appearance of finished metal, metallic or metallized surfaces by physical or chemical action. To "improve" means to remove or reduce stains, impurities or oxidation from surfaces or to make surfaces smooth and shiny. Metal polish includes, but is not limited to, metal polishes used on brass, silver, chrome, copper, stainless steel and other ornamental metals.

Nail Polish Remover¹ means a product designed to remove nail polish and coatings from fingernails or toenails.

Paint¹ means any pigmented liquid, liquefiable, or mastic composition designed for application to a substrate in a thin layer which is converted to an opaque solid film after application and is used for protection, decoration or identification, or to serve some functional purpose such as the filling or concealing of surface irregularities or the modification of light and heat radiation characteristics.

¹This wording is exactly as it appears in The California Consumer Products Regulation (Title 17, California Code of Regulations, Sections 94500-94506.5, 94507-94517, or 94520-94528).

RELATED DEFINITIONS

These definitions are for survey purposes only, some definitions differ from current regulatory definitions. Do not refer to the current regulation as a reference for this survey.

*Paint Remover or Stripper*¹ means any product designed to strip or remove paints or other related coatings, by chemical action, from a substrate without markedly affecting the substrate. "Paint Remover or Stripper" does not include "Multi-purpose Solvents", "Brush Cleaner", "Graffiti Remover", and hand cleaner products that claim to remove paints and other related coatings from skin.

Paint Thinner means any organic liquid that is labeled as a "Paint Thinner" on the *principal display panel* and is intended to be used primarily for reducing the viscosity of paints and coatings.

Parent Company means the company or corporation that owns and controls other companies.

*Person*¹ shall have the same meaning as defined in Health and Safety Code Section 39047.

*Personal Fragrance Product*¹ means any product which is applied to the human body or clothing for the primary purpose of adding a scent or masking a malodor, including cologne, perfume, aftershave, and toilet water. "Personal Fragrance Product" does not include: (A) products exclusively for human axillae; (B) medicated products designed primarily to alleviate fungal or bacterial growth on feet or other areas of the body; (C) mouthwashes, breath fresheners and deodorizers; (D) lotions, moisturizers, powders or other skin care products used primarily to alleviate skin conditions such as dryness and irritations; (E) products designed exclusively for use on human genitalia; (F) soaps, shampoos, and products primarily used to clean the human body; and (G) fragrance products designed to be used exclusively on non-human animals.

*Pesticide*¹ means and includes any substance or mixture of substances labeled, designed, or intended for use in preventing, destroying, repelling or mitigating any pest, or any substance or mixture of substances labeled, designed, or intended for use as a defoliant, desiccant, or plant regulator, provided that the term "pesticide" will not include any substance, mixture of substances, or device which the United States Environmental Protection Agency does not consider to be a pesticide.

Pet care product means a consumer product intended for use on domestic animals, including but not limited to dogs, cats, horses, birds, reptiles, and rodents. *Pet care product* does not include products intended solely for use on animals kept for commercial purposes, such as livestock.

Pressurized Gas Duster means a pressurized product intended to remove dust from a surface strictly by means of mass air or gas flow, including dusting sprays for photographs, photographic film negatives, computer keyboards, and other types of surfaces that cannot be cleaned with solvents.

*Principal Display Panel or Panels*¹ means that part, or those parts of a label that are so designed as to most likely be displayed, presented, shown or examined under normal and customary conditions of display or purchase. Whenever a principal display panel appears more than once, all requirements pertaining to the "principal display panel" shall pertain to all such "principal display panels".

Product Group means a group of products represented together for the purposes of this survey that differ only by size, color, and/or fragrance, and meet all of the following grouping requirements:

1. All products must have the same Category Code;
2. All products must be the same form (e.g. aerosol, pump spray, etc.); and
3. Grouped products must have no greater than two percent variation in total VOC content, where the difference is only due to the type or amount of *fragrance* or *colorant*.

These definitions are for survey purposes only, some definitions differ from current regulatory definitions. Do not refer to the current regulation as a reference for this survey

Propellant¹ means a liquefied or compressed gas that is used in whole or in part, such as a cosolvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container.

Pump Spray¹ means a packaging system in which the product ingredients within the container are not under pressure and in which the product is expelled only while a pumping action is applied to a button, trigger or other actuator.

Responsible Party means the company, firm, or establishment listed on the label of a consumer or commercial product covered by this survey (see survey categories, page 78) that was sold with intention for use in California during Calendar Year 2001. If the label lists two companies, firms, or establishments, the responsible party is the party that the product was "manufactured for" or "distributed by," as noted on the label.

Retailer means a company/person who sells, supplies, or offers consumer products for sale directly to consumers.

Rubber and Vinyl Protectant¹ means any product designed to protect, preserve or renew vinyl, rubber, and plastic on vehicles, tires, luggage, furniture, and household products such as vinyl covers, clothing, and accessories. "Rubber and Vinyl Protectant" does not include products primarily designed to clean the wheel rim, such as aluminum or magnesium wheel cleaners, and tire cleaners that do not leave an appearance-enhancing or protective substance on the tire.

Shaving Cream¹ means an aerosol product which dispenses a foam lather intended to be used with a blade or cartridge razor, or other wet-shaving system in the removal of facial or other bodily hair.

Solid means a whole or subdivided substance (such as the particles comprising a powder), or a mixture of substances, that after being dispensed or as used, is not capable of visually detectable flow as determined under ASTM D-4359-90.

Spot Remover¹ means any product designed to clean localized areas, or remove localized spots or stains on cloth or fabric such as drapes, carpets, upholstery, and clothing, that does not require subsequent laundering to achieve stain removal. "Spot Remover" does not include "Dry Cleaning Fluid", "Laundry Prewash", "Carpet and Upholstery Cleaner", or "Multi-purpose Solvent".

Vinyl/Fabric/Leather/Polycarbonate Coating¹ means a coating designed and labeled exclusively to coat vinyl, fabric, leather, or polycarbonate substrates.

Definitions continued...

¹This wording is exactly as it appears in The California Consumer Products Regulation (Title 17, California Code of Regulations, Sections 94500-94506.5, 94507-94517, or 94520-94528).

RELATED DEFINITIONS

These definitions are for survey purposes only, some definitions differ from current regulatory definitions. Do not refer to the current regulation as a reference for this survey.

Volatile Organic Compound (VOC)¹ means any compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:

- (A) methane,
 methylene chloride (dichloromethane),
 1,1,1-trichloroethane (methyl chloroform),
 trichlorofluoromethane (CFC-11),
 dichlorodifluoromethane (CFC-12),
 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113),
 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114),
 chloropentafluoroethane (CFC-115),
 chlorodifluoromethane (HCFC-22),
 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123),
 1,1-dichloro-1-fluoroethane (HCFC-141b),
 1-chloro-1,1-difluoroethane (HCFC-142b),
 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124),
 trifluoromethane (HFC-23),
 1,1,2,2-tetrafluoroethane (HFC-134),
 1,1,1,2-tetrafluoroethane (HFC-134a),
 pentafluoroethane (HFC-125),
 1,1,1-trifluoroethane (HFC-143a),
 1,1-difluoroethane (HFC-152a),
 cyclic, branched, or linear completely methylated siloxanes,
 the following classes of perfluorocarbons:
1. cyclic, branched, or linear, completely fluorinated alkanes;
 2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
 3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
 4. sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds to carbon and fluorine, and
- (B) the following low-reactive organic compounds which have been exempted by the U.S. EPA:
 acetone,
 ethane,
 methyl acetate,
 parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene),
 perchloroethylene (tetrachloroethylene).

Wax¹ means a material or synthetic thermoplastic substance generally of high molecular weight hydrocarbons or high molecular weight esters of fatty acids or alcohols, except glycerol and high polymers (plastics). "Wax" includes, but is not limited to, substances derived from the secretions of plants and animals such as caruba wax and beeswax, substances of a mineral origin such as ozocerite and paraffin, and synthetic polymers such as polyethylene.

PART VIII: Voluntary Survey Evaluation

PART VIII: VOLUNTARY SURVEY EVALUATION

VOLUNTARY SURVEY EVALUATION

This survey will be used to create future surveys and it is important to ARB that all surveys are easy to understand and use. Please help us further improve survey format by evaluating this survey packet.

Please note, the information you provide on this evaluation will not be associated with the data you provide on other survey forms. To comment on specific company or product information, use the comment spaces on FORMs 1 and 3 respectively.

Circle one answer for each statement. Use "n/a" if the question does not apply.

		strongly agree			strongly disagree	
1. The survey material was arranged in logical order.	n/a	1	2	3	4	5
2. After reading Parts I-III of the packet, I felt prepared to complete the survey forms.	n/a	1	2	3	4	5
3. The flowchart on page 13 was helpful.	n/a	1	2	3	4	5
4. The checklist on page 16 was helpful.	n/a	1	2	3	4	5
5. The forms were easy to understand and follow.	n/a	1	2	3	4	5
6. Having the instructions located on the back of the forms was helpful.	n/a	1	2	3	4	5
7. The instructions were helpful and easy to understand.	n/a	1	2	3	4	5
8. I used the electronic submittal option to complete the survey, and it was user-friendly.	n/a	1	2	3	4	5

Specific comments regarding above questions: _____

Suggestions for making the survey more user-friendly or otherwise improving the survey: _____

If additional space is needed, please attach an additional page. Thank you for completing this evaluation.

**APPENDIX E:
Summary of Cost Calculations**

Category: Adhesive Remover Low Cost
 Subcategory: Gasket and Thread Locking-Aerosol #1
 Typical noncomp: 35 Average Unit
 Proposed Limit: 50 Size 18.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)x(C)/100	wt% (D)	(B)x(D)/100
Methylene Chloride	0.34	60.00	0.20		0.00
Methanol	0.10	10.00	0.01		0.00
Alcohol	0.43	10.00	0.04		0.00
Wax	0.65		0.00	2.00	0.01
HC Propellant	0.25	15.00	0.04	20.00	0.05
Potassium Hydroxide	0.64		0.03	3.00	0.02
HC Solvent LVP	0.45		0.00	5	0.03
Methyl Ester	1.54		0.00	34	0.52
Acetone	0.40		0.00	5	0.02
Ethyl Lactate	1.20		0.00	30	0.36
SUM		100.00		100.00	

Total Cost, \$/pound 0.33 1.01
 % Cost Diff. Relative to Current Product 210.67
 Total Cost, \$/Unit 0.37 1.14
 Recurring Costs C.E., \$/lb VOC Reduced -4.58

Assume: (1) Cost of "All Others" remains at \$ 3.50 per pound
 (2) Average unit size = 18.00 ounce

Category: Adhesive Remover High Cost
 Subcategory: Gasket and Thread Locking-Aerosol #1
 Typical noncomp: 35 Average Unit
 Proposed Limit: 50 Size 18.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)x(C)/100	wt% (D)	(B)x(D)/100
Methylene Chloride	0.34	60.00	0.20		0.00
Methanol	0.10	10.00	0.01		0.00
Alcohol	0.43	10.00	0.04		0.00
Wax	0.65		0.00	2.00	0.01
HC Propellant	0.25	15.00	0.04	20.00	0.05
Potassium Hydroxide	0.64		0.03	3.00	0.02
HC Solvent LVP	0.45		0.00	6.00	0.03
Methyl Ester	1.54		0.00	34.00	0.52
Acetone	0.40		0.00	5.00	0.02
Ethyl Lactate	1.20		0.00	30.00	0.36
SUM		100.00		100.00	

Total Cost, \$/pound 0.33 1.01
 % Cost Diff. Relative to Current Product 210.67
 Total Cost, \$/Unit 0.37 1.14
 Recurring Costs C.E., \$/lb VOC Reduced -4.58

Assume: (1) Cost of "All Others" remains at \$ 7.00 per pound
 (2) Average unit size = 18.00 ounce

Category: Adhesive Remover **Low Cost**
 Subcategory: General Purpose aerosol
 Typical noncomp: 100 Average Unit 9.00 wt oz
 Proposed Limit: 20 Size

Formulation and Cost Comparison

Component (A)	Unit Cost (\$/lb (B))	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant (D)	(B)(D)/100
Xylene	0.240	14.00 0.03		0.00
Alkane	0.216	50.00 0.11		0.00
Mineral Spirits	0.540	20.00 0.11		0.00
Potassium Hydroxide	3.500	0.00	2.00	0.07
HC Propellant	0.250	15.00 0.04		0.00
Fragrance	3.500	1 0.04		0.00
Carbon Dioxide	0.100	0.00	4	0.00
D-Limonene	1.250	0.00	20	0.25
Acetone	0.400	0.00	17	0.07
HC Solvent (LVP)	0.450	0.00	55	0.25
Wax	0.650	0.00	2	0.01
SUM	100.00		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product 102.58
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Adhesive Remover **High Cost**
 Subcategory: General Purpose aerosol
 Typical noncomp: 100 Average Unit 9.00 wt oz
 Proposed Limit: 20 Size

Formulation and Cost Comparison

Component (A)	Unit Cost (\$/lb (B))	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant (D)	(B)(D)/100
Xylene	0.240	14.00 0.03		0.00
Alkane	0.216	50.00 0.11		0.00
Mineral Spirits	0.540	20.00 0.11		0.00
Potassium Hydroxide	7.000	0.00	2.00	0.14
HC Propellant	0.250	15.00 0.04		0.00
Fragrance	7.000	1.00 0.07		0.00
Carbon Dioxide	0.100	0.00	4.00	0.00
D-Limonene	1.250	0.00	20.00	0.25
Acetone	0.400	0.00	17.00	0.07
HC Solvent (LVP)	0.450	0.00	55.00	0.25
Wax	0.650	0.00	2	0.01
SUM	100.00		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product 102.32
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Adhesive Remover Low Cost
 Subcategory: General Purpose Non-aerosol
 Typical noncomp: 98 Average Unit Size 9.00 wt oz
 Proposed Limit: 20

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost w% (C) (B)(C)/100	% VOC Compliant Cost w% (D) (B)(D)/100
D-Limonene	1.250	30.00 0.38	0.00
Mineral Spirits	0.540	55.00 0.30	0.00
Potassium Hydroxide	0.640	2.00 0.01	0.02
Glycol Ether (VOC)	1.420	13.00 0.18	0.07
Water	0.002	0.00	0.00
Dibasic Esters	0.910	0.00	0.55
Alcohol	0.430	0.00	0.05
SUM	100.00	100.00	

Total Cost, \$/pound 0.87 0.69
 % Cost Diff. Relative to Current Product -20.84
 Total Cost, \$/Unit 0.49 0.39
 Recurring Costs C. E., \$/lb VOC Reduced -0.23

Assume: (1) Cost of "All Others" remains at \$ 3.50 per pound
 (2) Average unit size = 8.00 ounce

Category: Adhesive Remover High Cost
 Subcategory: General Purpose Non-aerosol
 Typical noncomp: 98 Average Unit Size 9.00 wt oz
 Proposed Limit: 20

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost w% (C) (B)(C)/100	% VOC Compliant Cost w% (D) (B)(D)/100
D-Limonene	1.250	30.00 0.38	0.00
Mineral Spirits	0.540	55.00 0.30	0.00
Potassium Hydroxide	0.640	2.00 0.01	0.02
Glycol Ether (VOC)	1.420	13.00 0.18	0.07
Water	0.002	0.00	0.00
Dibasic Esters	0.910	0.00	0.55
Alcohol	0.430	0.00	0.05
SUM	100.00	100.00	

Total Cost, \$/pound 0.87 0.69
 % Cost Diff. Relative to Current Product -20.84
 Total Cost, \$/Unit 0.49 0.39
 Recurring Costs C. E., \$/lb VOC Reduced -0.23

Assume: (1) Cost of "All Others" remains at \$ 7.00 per pound
 (2) Average unit size = 9.00 ounce

Category: Adhesive Remover Low Cost
 Subcategory: Specialty - Aerosol #1
 Typical noncomp: 100 Average Unit
 Proposed Limit: 70 Size 18.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost (\$/lb)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant (D)	Cost (B)(D)/100
Xylene	0.240	25.00	0.06	0.00
HC Solvent (VOC)	0.380	25.00	0.10	0.08
Alcohol	0.430	25.00	0.11	0.00
Exempts & non-solvent	3.500		0.00	3.00
LVP-VOC	0.250	25.00	0.06	0.11
HC Propellant	0.910			15.00
Dibasic Ester	0.240			25.00
Aromatic HC VOC	1.200			25
Ethyl Lactate	0.650			10
Wax				2
				0.01
SUM	100.00			100.00

Total Cost, \$/pound
 % Cost DfR Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Adhesive Remover High Cost
 Subcategory: Specialty - Aerosol #1
 Typical noncomp: 100 Average Unit
 Proposed Limit: 70 Size 18.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost (\$/lb)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant (D)	Cost (B)(D)/100
Xylene	0.240	25.00	0.06	0.00
HC Solvent (VOC)	0.380	25.00	0.10	0.08
Alcohol	0.430	25.00	0.11	0.00
Exempts & non-solvent	7.000		0.00	3.00
LVP-VOC	0.250	25.00	0.06	0.21
HC Propellant	0.910			15.00
Dibasic Ester	0.240			25.00
Aromatic HC VOC	1.200			25.00
Ethyl Lactate	0.650			10.00
Wax				2.00
				0.01
SUM	100.00			100.00

Total Cost, \$/pound
 % Cost DfR Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Adhesive Remover Low Cost
 Subcategory: Specialty non-aerosol
 Typical noncomp: 100 Average Unit Size 18.00 wt oz
 Proposed Limit: 70

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant wt% (C)	(B)x(C)/100 Cost	% VOC Compliant wt% (D)	(B)x(D)/100 Cost
Xylene	0.24	10.00	0.02	10.00	0.02
Inorganics	3.50	10.00	0.35	3.00	0.11
D-Limonene	1.25	0.00	0.00	0.00	0.00
Alcohol	0.43	15.00	0.06	20.00	0.09
HC Solvent (VOC)	0.38	50.00	0.19	10.00	0.04
Glycol Ether	1.42	15	0.21	15	0.21
Toluene	0.22	0.00	0.00	5	0.01
Acetone	0.40	0.00	0.00	25	0.10
Ethyl Lactate	1.20	0.00	0.00	10	0.12
Wax	0.65	0.00	0.00	2	0.01
SUM		100.00		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Adhesive Remover High Cost
 Subcategory: Specialty non-aerosol
 Typical noncomp: 100 Average Unit Size 18.00 wt oz
 Proposed Limit: 70

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant wt% (C)	(B)x(C)/100 Cost	% VOC Compliant wt% (D)	(B)x(D)/100 Cost
Xylene	0.24	10.00	0.02	10.00	0.02
Inorganics	7.00	10.00	0.70	3.00	0.21
D-Limonene	1.25	0.00	0.00	0.00	0.00
Alcohol	0.43	15.00	0.06	20.00	0.09
HC Solvent (VOC)	0.38	50.00	0.19	10.00	0.04
Glycol Ether	1.42	15.00	0.21	15.00	0.21
Toluene	0.22	0.00	0.00	5.00	0.01
Acetone	0.40	0.00	0.00	25.00	0.10
Ethyl Lactate	1.20	0.00	0.00	10.00	0.12
Wax	0.85	0.00	0.00	2.00	0.01
SUM		100.00		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Adhesive Remover Low Cost
 Subcategory: Floor or Wall Covering Non-aerosol #1
 Typical noncomp: 25 Average Unit
 Proposed Limit: 5 Size 100.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant wt% (C)	(B)(C)/100 Cost	% VOC Compliant wt% (D)	(B)(D)/100 Cost
Water	0.002	5.00	0.00	93.00	0.00
D-limonene	1.250	0.00	0.00	3.00	0.04
Potassium Hydroxide	0.640	0.00	0.00	2.00	0.01
Mineral Oil	0.490	0.00	0.00	2.00	0.01
Methylene Chloride	0.340	70.00	0.24		0.00
Methanol	0.100	5.00	0.01		0.00
Xylene	0.240	10.00	0.02		0.00
Alcohol	0.425	10.00	0.04		0.00
SUM		100.00		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product -79.99
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume:
 (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Adhesive Remover High Cost
 Subcategory: Floor or Wall Covering Non-aerosol #1
 Typical noncomp: 25 Average Unit
 Proposed Limit: 5 Size 100.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant wt% (C)	(B)(C)/100 Cost	% VOC Compliant wt% (D)	(B)(D)/100 Cost
Water	0.002	5.00	0.00	93.00	0.00
D-limonene	1.250	0.00	0.00	3.00	0.04
Potassium Hydroxide	0.640	0.00	0.00	2.00	0.01
Mineral Oil	0.490	0.00	0.00	2.00	0.01
Methylene Chloride	0.340	70.00	0.24		0.00
Methanol	0.100	5.00	0.01		0.00
Xylene	0.240	10.00	0.02		0.00
Alcohol	0.425	10.00	0.04		0.00
SUM		100.00		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product -79.99
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume:
 (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Adhesive Remover Low Cost
 Subcategory: Floor or Wall Covering Non-aerosol #2
 Typical noncomp: 90 Average Unit
 Proposed Limit: 5 Size 100.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant wt% (C)	Cost (B)x(C)/100	% VOC Compliant wt% (D)	Cost (B)x(D)/100
HC Solvent (VOC)	0.380	80.00	0.30		0.00
Alcohol	0.425	10.00	0.04		0.00
Potassium Hydroxide	0.640	10.00	0.06	10.00	0.06
Dibasic Esters	0.910			35.00	0.32
HC Solvent (LVP)	0.450			45.00	0.20
Acetone	0.400			10	0.04
SUM	100.00			100.00	

Total Cost, \$/pound 0.41 0.63
 % Cost Diff. Relative to Current Product 52.25
 Total Cost, \$/Unit 2.57 3.91
 Recurring Costs C.E., \$/lb VOC Reduced 0.25

Assume: (1) Cost of "All Others" remains at \$ 3.50 per pound
 (2) Average unit size = 100.00 ounce

Category: Adhesive Remover High Cost
 Subcategory: Floor or Wall Covering Non-aerosol #2
 Typical noncomp: 90 Average Unit
 Proposed Limit: 5 Size 100.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant wt% (C)	Cost (B)x(C)/100	% VOC Compliant wt% (D)	Cost (B)x(D)/100
HC Solvent (VOC)	0.380	80.00	0.30		0.00
Alcohol	0.425	10.00	0.04		0.00
Potassium Hydroxide	0.640	10.00	0.06	10.00	0.06
Dibasic Esters	0.910			35.00	0.32
HC Solvent (LVP)	0.450			45.00	0.20
Acetone	0.400			10.00	0.04
SUM	100.00			100.00	

Total Cost, \$/pound 0.41 0.63
 % Cost Diff. Relative to Current Product 52.25
 Total Cost, \$/Unit 2.57 3.91
 Recurring Costs C.E., \$/lb VOC Reduced 0.25

Assume: (1) Cost of "All Others" remains at \$ 7.00 per pound
 (2) Average unit size = 100.00 ounce

Category: Air Freshener Low Cost
 Subcategory: Solid
 Typical noncomp: 99 Average Unit
 Proposed Limit: 3 Size 16.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		Wt% (C) (B)x(C)/100	(B)x(C)/100	Wt% (D)	(B)x(D)/100
Paradichlorobenzene	0.650	99.00	0.64	0.00	0.00
Fragrance	3.500	1.00	0.04	3.00	0.11
Silica Gel	3.500		0.00	5.00	0.18
Water	0.002		0.00	92.00	0.00
SUM	100.00			100.00	

Total Cost, \$/pound

% Cost Diff. Relative to Current Product

Total Cost, \$/Unit

Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at per pound
 (2) Average unit size = ounce

Category: Air Freshener High Cost
 Subcategory: Solid
 Typical noncomp: 99 Average Unit
 Proposed Limit: 3 Size 16.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		Wt% (C) (B)x(C)/100	(B)x(C)/100	Wt% (D)	(B)x(D)/100
Paradichlorobenzene	0.650	99.00	0.64	0.00	0.00
Fragrance	7.000	1.00	0.07	3.00	0.21
Silica Gel	7.000		0.00	5.00	0.35
Water	0.002		0.00	92.00	0.00
SUM	100.00			100.00	

Total Cost, \$/pound

% Cost Diff. Relative to Current Product

Total Cost, \$/Unit

Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at per pound
 (2) Average unit size = ounce

Category: Anti-Static Product Low Cost
 Subcategory: Aerosol
 Typical noncomp: 97 Average Unit Size 7.00 wt oz
 Proposed Limit: 80

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)x(C)/100	wt% (D)	(B)x(D)/100
Ethanol	0.425	75.00	0.32	70.00	0.30
Water	0.002	0.00	0.00	14.00	0.00
HC Propellant	0.250	22.00	0.06	10.00	0.03
Inorganic	3.500	3.00	0.11	1.00	0.04
HFC-152a	1.850			5.00	0.09
SUM	100.00			100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product -5.95
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Anti-Static Product High Cost
 Subcategory: Aerosol
 Typical noncomp: 97 Average Unit Size 7.00 wt oz
 Proposed Limit: 80

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)x(C)/100	wt% (D)	(B)x(D)/100
Ethanol	0.425	75.00	0.32	70.00	0.30
Water	0.002	0.00	0.00	14.00	0.00
HC Propellant	0.250	22.00	0.06	10.00	0.03
Inorganic	7.000	3.00	0.21	1.00	0.07
HFC-152a	1.850			5.00	0.09
SUM	100.00			100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product -16.87
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Contact Adhesive **Low Cost**
 Subcategory: General Purpose
 Typical noncomp. Size: 77 Average Unit
 Proposed Limit: 55 4.32 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant Cost (B)(D)/100
		wt% (C)	wt% (D)
Toluene	0.224	7.00	18.00
Hexane	0.212	16.00	9.00
Methyl ethyl ketone	0.480	29.00	0.14
Xylene	0.240	25.00	0.06
Exempts and non-solvent LVPs	3.500	20.00	25.00
Inorganic	3.500	3	0.11
Acetone	0.400		27
VM&P Naphtha	0.540		21
SUM		100.00	100.00

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product 9.68
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Contact Adhesive **High Cost**
 Subcategory: General Purpose
 Typical noncomp. Size: 77 Average Unit
 Proposed Limit: 55 4.32 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant Cost (B)(D)/100
		wt% (C)	wt% (D)
Toluene	0.224	7.00	18.00
Hexane	0.212	16.00	9.00
Methyl ethyl ketone	0.480	29.00	0.14
Xylene	0.240	25.00	0.06
Exempts and non-solvent LVPs	7.000	20.00	25.00
Inorganic	7.000	3.00	0.21
Acetone	0.400		27.00
VM&P Naphtha	0.540		21.00
SUM		100.00	100.00

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product 9.25
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Electrical Cleaner
 Subcategory: non-aerosol
 Typical roomcomp: 100
 Proposed Limit: 45

Low Cost
 Average Unit Size: 160.00 w oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		Wt% (C)	Cost (\$)/(CY)100 (B)(C)/100	Wt% (D)	Cost (\$)/(DY)10 (B)(D)/10
H2C Solvent	0.390	90.00	0.34	45.00	0.17
Acetone	0.420	10.00	0.04	0.00	0.00
Alcohols	0.400			45.00	0.18
Water	0.002			10.00	0.00
SUM		100.00		100.00	

Total Cost, \$/pound 0.35
 % Cost Diff. Relative to Current Product -8.96
 Total Cost, \$/Unit 3.51
 Recurring Costs C.E., \$/lb VOC Reduced -0.08

Assume: (1) Cost of "All Others" remains at \$ 3.50 per pound
 (2) Average unit size = 160.00 ounces

Category: Electrical Cleaner
 Subcategory: non-aerosol
 Typical roomcomp: 100
 Proposed Limit: 45

High Cost
 Average Unit Size: 160.00 w oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		Wt% (C)	Cost (\$)/(CY)100 (B)(C)/100	Wt% (D)	Cost (\$)/(DY)10 (B)(D)/10
H2C Solvent	0.380	90.00	0.34	45.00	0.17
Acetone	0.420	10.00	0.04	0.00	0.00
Alcohols	0.400			45.00	0.18
Water	0.002			10.00	0.00
SUM		100.00		100.00	

Total Cost, \$/pound 0.38
 % Cost Diff. Relative to Current Product -8.96
 Total Cost, \$/Unit 3.83
 Recurring Costs C.E., \$/lb VOC Reduced -0.08

Assume: (1) Cost of "All Others" remains at \$ 7.00 per pound
 (2) Average unit size = 160.00 ounces

Category: Electronic Cleaner Low Cost
 Subcategory: Aerosol
 Typical noncomp: 100 Average Unit Size 12.00 wt oz
 Proposed Limit: 75

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost wt% (C) (B)x(C)/100	% VOC Compliant Cost wt% (D) (B)x(D)/100
HC Solvent	0.380	80.00 0.23	35.00 0.13
Aromatic HC Solvent	0.240	25.00 0.06	0.00 0.00
HC Propellant	0.250	15.00 0.04	15.00 0.04
Acetone	0.400		0.00 0.00
Alcohol	0.425		25.00 0.11
Water	0.002		25.00 0.00
SUM	100.00	100.00	100.00

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Electronic Cleaner High Cost
 Subcategory: Aerosol
 Typical noncomp: 100 Average Unit Size 12.00 wt oz
 Proposed Limit: 75

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost wt% (C) (B)x(C)/100	% VOC Compliant Cost wt% (D) (B)x(D)/100
HC Solvent	0.380	80.00 0.23	35.00 0.13
Aromatic HC Solvent	0.240	25.00 0.06	0.00 0.00
HC Propellant	0.250	15.00 0.04	15.00 0.04
Acetone	0.400		0.00 0.00
Alcohol	0.425		25.00 0.11
Water	0.002		25.00 0.00
SUM	100.00	100.00	100.00

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: **Electronic Cleaner** **Low Cost**
 Subcategory: **non-aerosol**
 Typical noncomp: **100** **Average Unit**
 Proposed Limit: **75** **Size** **160.00 wt oz**

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	Cost (B)x(C)/100	wt% (D)	Cost (B)x(D)/100
VOC HC Solvent	0.380	90.00	0.34	45.00	0.17
Alcohol	0.425	10.00	0.04	30.00	0.13
Water	0.002		0.00	25.00	0.00
SUM		100.00		100.00	

Total Cost, \$/pound **0.39**
 % Cost Diff. Relative to Current Product **-22.24**
 Total Cost, \$/Unit **3.85**
 Recurring Costs C.E., \$/lb VOC Reduced **-0.34**

Assume:
 (1) Cost of "All Others" remains at **\$ 3.50** per pound
 (2) Average unit size = **160.00** ounce

Category: **Electronic Cleaner** **High Cost**
 Subcategory: **non-aerosol**
 Typical noncomp: **100** **Average Unit**
 Proposed Limit: **75** **Size** **160.00 wt oz**

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	Cost (B)x(C)/100	wt% (D)	Cost (B)x(D)/100
VOC HC Solvent	0.380	90.00	0.34	45.00	0.17
Alcohol	0.425	10.00	0.04	30.00	0.13
Water	0.002		0.00	25.00	0.00
SUM		100.00		100.00	

Total Cost, \$/pound **0.38**
 % Cost Diff. Relative to Current Product **-22.24**
 Total Cost, \$/Unit **3.85**
 Recurring Costs C.E., \$/lb VOC Reduced **-0.34**

Assume:
 (1) Cost of "All Others" remains at **\$ 7.00** per pound
 (2) Average unit size = **160.00** ounce

Category: Fabric Refresher Low Cost
 Subcategory: Aerosol
 Typical noncomp: 25 Average Unit Size
 Proposed Limit: 15 14.00 wt oz

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)(C)/100 Cost	wt% (D)	(B)(D)/100 Cost
H/C Propellant	0.250	25.00	0.06	15.00	0.04
Fragrance	3.500	1.00	0.04	1.00	0.04
Inorganic	3.500	1.00	0.04	0.50	0.02
Exempts & non-solvent					
LVP-VOC	3.500	3.50	0.12	3.50	0.12
Water	0.002	70.00	0.00	80.00	0.00
SUM		100.50		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume:
 (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Fabric Refresher High Cost
 Subcategory: Aerosol
 Typical noncomp: 25 Average Unit Size
 Proposed Limit: 15 14.00 wt oz

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)(C)/100 Cost	wt% (D)	(B)(D)/100 Cost
H/C Propellant	0.250	25.00	0.06	15.00	0.04
Fragrance	7.000	1.00	0.07	1.00	0.07
Inorganic	7.000	1.00	0.07	0.50	0.04
Exempts & non-solvent					
LVP-VOC	7.000	3.50	0.25	3.50	0.25
Water	0.002	70.00	0.00	80.00	0.00
SUM		100.50		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume:
 (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Fabric Refresher
 Subcategory: Liquids
 Typical noncomp. size: 18
 Proposed Limit: 8
 Average Unit Size: 128.00 wt oz

Low Cost

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant Cost (B)(D)/100
Alcohol	0.425	15.00	6.00
Fragrance	3.500	5.00	2.00
Exempt & non-solvent	3.500	3.00	4.00
LVP-VOC	0.002	77.00	88.00
Water			
SUM	100.00	100.00	100.00

Total Cost, \$/pound

% Cost Diff. Relative to Current Product

Total Cost, \$/Unit

Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Fabric Refresher
 Subcategory: Liquids
 Typical noncomp. size: 18
 Proposed Limit: 8
 Average Unit Size: 128.00 wt oz

High Cost

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant Cost (B)(D)/100
Alcohol	0.425	15.00	6.00
Fragrance	7.000	5.00	2.00
Exempt & non-solvent	7.000	3.00	4.00
LVP-VOC	0.002	77.00	88.00
Water			
SUM	100.00	100.00	100.00

Total Cost, \$/pound

% Cost Diff. Relative to Current Product

Total Cost, \$/Unit

Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Fabric Refresher
 Subcategory: Solids
 Typical noncomp: 10
 Proposed Limit: 6
 Average Unit Size: 32.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost (\$/lb (B))	Typical Non-compliant Cost		% VOC Compliant Cost	
		Wt% (C)	(B)(C)/100	Wt% (D)	(B)(D)/100
VOC Solvent	1,250	6.00	0.08	8.00	0.10
Fragrance	3,500	2.00	0.07	4.00	0.14
Inorganics	3,500	92.00	3.22	88.00	3.08
SUM		100.00		100.00	

Total Cost, \$/pound: 3.37
 Total Cost, \$/Unit: 6.73
 Recurring Costs C.E., \$/lb VOC Reduced: -1.13

Assume: (1) Cost of "All Others" remains at \$ 3.50 per pound
 (2) Average unit size = 32.00 ounce

Category: Fabric Refresher
 Subcategory: Solids
 Typical noncomp: 10
 Proposed Limit: 6
 Average Unit Size: 32.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost (\$/lb (B))	Typical Non-compliant Cost		% VOC Compliant Cost	
		Wt% (C)	(B)(C)/100	Wt% (D)	(B)(D)/100
VOC Solvent	1,250	6.00	0.08	8.00	0.10
Fragrance	7,000	2.00	0.14	4.00	0.28
Inorganics	7,000	92.00	6.44	88.00	6.16
SUM		100.00		100.00	

Total Cost, \$/pound: 6.54
 Total Cost, \$/Unit: 13.31
 Recurring Costs C.E., \$/lb VOC Reduced: -2.89

Assume: (1) Cost of "All Others" remains at \$ 7.00 per pound
 (2) Average unit size = 32.00 ounce

Category: Low Cost
 Footwear and Leather Care Product
 Subcategory: Aerosol

Typical noncomp: 100 Average Unit Size 4.25 wt oz
 Proposed Limit: 75

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant wt% (C) (B)(C)/100 Cost	% VOC Compliant wt% (D) (B)(D)/100 Cost
Alcohol	0.425	4.00	4.00
H/C Solvent	0.380	6.00	6.00
Heptane	0.250	65.00	40.00
H/C Propellant	0.250	25.00	25.00
Acetone	0.400		25.00
SUM	100.00	100.00	100.00

Total Cost, \$/pound 0.26

% Cost Diff. Relative to Current Product 14.16

Total Cost, \$/Unit 0.07

Recurring Costs C.E., \$/lb VOC Reduced 0.15

Assume:
 (1) Cost of "All Others" remains at \$ 3.50 per pound
 (2) Average unit size = 4.25 ounce

Category: High Cost
 Footwear and Leather Care Product
 Subcategory: Aerosol

Typical noncomp: 100 Average Unit Size 4.25 wt oz
 Proposed Limit: 75

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant wt% (C) (B)(C)/100 Cost	% VOC Compliant wt% (D) (B)(D)/100 Cost
Alcohol	0.425	4.00	4.00
H/C Solvent	0.380	6.00	6.00
Heptane	0.250	65.00	40.00
H/C Propellant	0.250	25.00	25.00
Acetone	0.400		25.00
SUM	100.00	100.00	100.00

Total Cost, \$/pound 0.28

% Cost Diff. Relative to Current Product 14.16

Total Cost, \$/Unit 0.07

Recurring Costs C.E., \$/lb VOC Reduced 0.15

Assume:
 (1) Cost of "All Others" remains at \$ 7.00 per pound
 (2) Average unit size = 4.25 ounce

Category: Low Cost
 Subcategory: Footwear and Leather Care Product
 Semi-solid
 Typical noncomp: 30 Average Unit Size
 Proposed Limit: 15 1.55 wt oz

Formulation and Cost Comparison

Component (A) Exempts & Non-solvent	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)x(C)/100 Cost	wt% (D)	(B)x(D)/100 Cost
LVPs	3.500	25.00	0.88	25.00	0.88
HC Solvent (VOC)	0.380	30.00	0.11	15.00	0.06
HC Solvent (LVP)	0.450	45.00	0.00	7.00	0.03
Water	0.002		0.00	53.00	0.00
SUM	100.00			100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume:
 (1) Cost of "All Others" remains at
 (2) Average unit size =

Category: High Cost
 Subcategory: Footwear and Leather Care Product
 Semi-solid
 Typical noncomp: 30 Average Unit Size
 Proposed Limit: 15 1.55 wt oz

Formulation and Cost Comparison

Component (A) Exempts & Non-solvent	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)x(C)/100 Cost	wt% (D)	(B)x(D)/100 Cost
LVPs	7.000	25.00	1.75	25.00	1.75
HC Solvent (VOC)	0.380	30.00	0.11	15.00	0.06
HC Solvent (LVP)	0.450	45.00	0.00	7.00	0.03
Water	0.002		0.00	53.00	0.00
SUM	100.00			100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume:
 (1) Cost of "All Others" remains at
 (2) Average unit size =

Category: Low Cost
 Footwear and Leather Care Product
 Subcategory: Liquid
 Typical noncomp.: 84 Average Unit Size
 Proposed Limit: 15 3.29 wt oz

Formulation and Cost Comparison

Component (A) Exempt & Non-solvent LVPs	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)(C)/100 Cost	wt% (D)	(B)(D)/100 Cost
Inorganic	3.500	3.00	0.11	5.00	0.18
Glycol Ethers	1.420	10.00	0.14	15.00	0.21
Alcohol	0.425	84.00	0.36	0.00	0.00
Water	0.002		0.00	80.00	0.00
SUM	100.00			100.00	

Total Cost, \$/pound

% Cost Diff. Relative to Current Product

Total Cost, \$/Unit

Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at per pound
 (2) Average unit size = ounce

Category: High Cost
 Footwear and Leather Care Product
 Subcategory: Liquid
 Typical noncomp.: 84 Average Unit Size
 Proposed Limit: 15 3.29 wt oz

Formulation and Cost Comparison

Component (A) Exempt & Non-solvent LVPs	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)(C)/100 Cost	wt% (D)	(B)(D)/100 Cost
Inorganic	7.000	3.00	0.21	5.00	0.35
Glycol Ethers	1.420	10.00	0.14	15.00	0.21
Alcohol	0.425	84.00	0.36	0.00	0.00
Water	0.002		0.00	80.00	0.00
SUM	100.00			100.00	

Total Cost, \$/pound

% Cost Diff. Relative to Current Product

Total Cost, \$/Unit

Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at per pound
 (2) Average unit size = ounce

Category: **Griffith Remover**
 Subcategory: **non-aerosol**

Low Cost

Typical noncomp: **80** Average Unit **128.75 ml oz**
 Proposed Limit: **30** Size

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	Cost (B)(C)/100	wt% (D)	Cost (B)(D)/10
VOC Glycol Ether	1.420	30.00	0.43	45.00	0.00
Water	0.002	15.00	0.00	20.00	0.00
LYR Glycol Ether	0.250	0.00	0.00	5.00	0.05
Isopropyls	3.500	5.00	0.18	5.00	0.18
D-Limonene	1.250	35.00	0.44	20.00	0.25
Alcohol	0.450	15	0.06	10	0.04
SUM		100.00		100.00	

Total Cost, \$/pound **1.10**
 % Cost Diff. Relative to Current Product **-52.87**
 Total Cost, \$/Unit **5.85**
 Required Cost C.E., \$/lb VOC Reduced **-1.17**

Assume: (1) Cost of "All Others" remains at **\$ 3.50** per pound
 (2) Average unit size = **128.75** ounce

Category: **Griffith Remover**
 Subcategory: **non-aerosol**

High Cost

Typical noncomp: **80** Average Unit **128.75 ml oz**
 Proposed Limit: **30** Size

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	Cost (B)(C)/100	wt% (D)	Cost (B)(D)/10
VOC Glycol Ether	1.420	30.00	0.43	0.00	0.00
Water	0.002	15.00	0.00	45.00	0.00
LYR Glycol Ether	0.250	0.00	0.00	20.00	0.05
Isopropyls	7.000	5.00	0.35	5.00	0.35
D-Limonene	1.250	35.00	0.44	20.00	0.25
Alcohol	0.450	15	0.06	10.00	0.04
SUM		100.00		100.00	

Total Cost, \$/pound **1.28**
 % Cost Diff. Relative to Current Product **45.72**
 Total Cost, \$/Unit **5.88**
 Required Cost C.E., \$/lb VOC Reduced **-1.17**

Assume: (1) Cost of "All Others" remains at **\$ 7.00** per pound
 (2) Average unit size = **128.75** ounce

Category: Hair Styling Product Low Cost
 Subcategory: Aerosol
 Typical noncomp: 65 Average Unit Size 11.00 wt oz
 Proposed Limit: 6

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant Cost (B)(D)/100
		wt% (C)	wt% (D)
Water	0.002	0.00	0.00
HFC-152a	1.850	30.00	13.00
HC Propellant	0.250	0.00	6.00
Exemptis & Non-solvent			
LVPs	3.500	4.90	0.17
Fragrance	3.500	0.10	10.90
Ethanol	0.425	65	0.10
SUM		100.00	100.00

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product -36.21
 Total Cost, \$/Unk
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Hair Styling Product High Cost
 Subcategory: Aerosol
 Typical noncomp: 65 Average Unit Size 11.00 wt oz
 Proposed Limit: 6

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant Cost (B)(D)/100
		wt% (C)	wt% (D)
Water	0.002	0.00	0.00
HFC-152a	1.850	30.00	13.00
HC Propellant	0.250	0.00	6.00
Exemptis & Non-solvent			
LVPs	7.000	4.90	0.34
Fragrance	7.000	0.10	10.90
Ethanol	0.425	65.00	0.10
SUM		100.00	100.00

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product +13.07
 Total Cost, \$/Unk
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Hair Styling Product Low Cost
 Subcategory: Pump Spray
 Typical noncomp: 8 Average Unit Size 9.00 wt oz
 Proposed Limit: 6

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)(C)/100	wt% (D)	(B)(D)/100
Exempts & Non-solvent	3.500	6.90	0.24	6.70	0.23
LVPs	0.002	85.00	0.00	92.20	0.00
Water	3.500	0.10	0.00	0.10	0.00
Fragrance		8.00	0.03		
Ethanol	0.425			1.00	0.01
Propylene Glycol	0.880				
SUM	100.00			100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product -12.13
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Hair Styling Product High Cost
 Subcategory: Pump Spray
 Typical noncomp: 8 Average Unit Size 9.00 wt oz
 Proposed Limit: 6

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)(C)/100	wt% (D)	(B)(D)/100
Exempts & Non-solvent	7.000	6.90	0.48	6.70	0.47
LVPs	0.002	85.00	0.00	92.20	0.00
Water	7.000	0.10	0.01	0.10	0.01
Fragrance		8.00	0.03		
Ethanol	0.425			1.00	0.01
Propylene Glycol	0.880				
SUM	100.00			100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product -7.81
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Hair Styling Product
 Subcategory: All Other Forms

Typical noncomp: 8 Average Unit Size 12.00 wt oz
 Proposed Limit: 2

Low Cost

Component (A) Exempts & Non-solvent	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	\$(B)(C)/100	wt% (D)	\$(B)(D)/100
LVPs	3.500	7.00	0.25	4.80	0.17
Water	0.002	82.90	0.00	95.00	0.00
Fragrance	3.500	0.10	0.00	0.20	0.01
Propylene Glycol	0.710	2.00	0.01		
Ethanol	0.425	8.00	0.03		
SUM	100.00			100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Hair Styling Product
 Subcategory: All Other Forms

Typical noncomp: 8 Average Unit Size 12.00 wt oz
 Proposed Limit: 2

High Cost

Component (A) Exempts & Non-solvent	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	\$(B)(C)/100	wt% (D)	\$(B)(D)/100
LVPs	7.000	7.00	0.49	4.80	0.34
Water	0.002	82.90	0.00	95.00	0.00
Fragrance	7.000	0.10	0.01	0.20	0.01
Propylene Glycol	0.710	2.00	0.01		
Ethanol	0.425	8.00	0.03		
SUM	100.00			100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Shaving Gel Low Cost
 Subcategory: Aerosol-Tier 1
 Typical noncomp. Size: 8 Average Unit
 Proposed Limit: 7 7.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)x(C)/100 Cost	wt% (D)	(B)x(D)/100 Cost
Hydrocarbon Blowing/ Post-foaming Agent	0.250	4.00	0.01	4.00	0.01
Hydrocarbon Driving	0.250	4.00	0.01	3.00	0.01
Propellant	1.850		0.00	0.00	0.00
HFC-152a (Driving Propellant)	3.500	0.50	0.02	0.50	0.02
Fragrance	3.500	20.50	0.72	20.50	0.72
non-solvent LYPs	0.002	71	0.00	72.00	0.00
Water					
SUM	100.00		190.00		

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Shaving Gel High Cost
 Subcategory: Aerosol-Tier 1
 Typical noncomp. Size: 8 Average Unit
 Proposed Limit: 7 7.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)x(C)/100 Cost	wt% (D)	(B)x(D)/100 Cost
Hydrocarbon Blowing/ Post-foaming Agent	0.250	4.00	0.01	4.00	0.01
Hydrocarbon Driving	0.250	4.00	0.01	3.00	0.01
Propellant	1.850		0.00	0.00	0.00
HFC-152a (Driving Propellant)	7.000	0.50	0.04	0.50	0.04
Fragrance	7.000	20.50	1.44	20.50	1.44
non-solvent LYPs	0.002	71.00	0.00	72.00	0.00
Water					
SUM	100.00		100.00		

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Shaving Gel Low Cost
 Subcategory: Aerosol-Tier 2
 Typical noncomp.: 7 Average Unit Size 7.00 wt oz
 Proposed Limit: 4

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)x(C)/100	wt% (D)	(B)x(D)/100
Hydrocarbon Blowing/Post-foaming Agent	0.250	4.00	0.01	4.00	0.01
Hydrocarbon Drying Propellant	0.250	3.00	0.01		0.00
Nitrogen (Drying Propellant)	0.090		0.00	4.00	0.00
Fragrance	3.500	0.50	0.02	0.50	0.02
Non-solvent LVPs	3.500	20.50	0.72	21.50	0.75
Water	0.002	72	0.00	70.00	0.00
SUM	100.00			100.00	

Total Cost, \$/pound 0.79

% Cost Diff. Relative to Current Product 4.12

Total Cost, \$/Unit 0.34

Recurring Costs C.E., \$/lb VOC Reduced 1.04

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Shaving Gel High Cost
 Subcategory: Aerosol-Tier 2
 Typical noncomp.: 7 Average Unit Size 7.00 wt oz
 Proposed Limit: 4

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)x(C)/100	wt% (D)	(B)x(D)/100
Hydrocarbon Blowing/Post-foaming Agent	0.250	4.00	0.01	4.00	0.01
Hydrocarbon Drying Propellant	0.250	3.00	0.01		0.00
Nitrogen (Drying Propellant)	0.090		0.00	4.00	0.00
Fragrance	7.000	0.50	0.04	0.50	0.04
Non-solvent LVPs	7.000	20.50	1.44	21.50	1.51
Water	0.002	72.00	0.00	70.00	0.00
SUM	100.00			100.00	

Total Cost, \$/pound 1.58

% Cost Diff. Relative to Current Product 4.44

Total Cost, \$/Unit 0.66

Recurring Costs C.E., \$/lb VOC Reduced 2.20

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Toilet and Urinal Care Product
 Subcategory: Solid (automatic)

Typical noncomp: 99
 Proposed Limit: 3
 Average Unit Size: 4.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)(C)/100	wt% (D)	(B)(D)/100
Paradichlorobenzene	0.650	99.00	0.64	0.00	0.00
Fragrance	3.500	1.00	0.04	10.00	0.35
Borax	0.306	0.00	0.00	50.00	0.15
Sodium Sulfate	0.105	0.00	0.00	90.00	0.03
Alcohol	0.430	0.00	0.00	5.00	0.02
Hexylene Glycol	1.120	0.00	0.00	5.00	0.06
SUM	100.00			100.00	

Total Cost, \$/pound 0.61
 % Cost Diff. Relative to Current Product -9.80
 Total Cost, \$/Unit 0.15
 Recurring Costs C.E., \$/lb VOC Reduced -0.07

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Toilet and Urinal Care Product
 Subcategory: Solid (automatic)

Typical noncomp: 99
 Proposed Limit: 3
 Average Unit Size: 4.00 wt oz

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost		% VOC Compliant Cost	
		wt% (C)	(B)(C)/100	wt% (D)	(B)(D)/100
Paradichlorobenzene	0.650	99.00	0.64	0.00	0.00
Fragrance	7.000	1.00	0.07	10.00	0.70
Borax	0.306	0.00	0.00	50.00	0.15
Sodium Sulfate	0.105	0.00	0.00	90.00	0.03
Alcohol	0.430	0.00	0.00	5.00	0.02
Hexylene Glycol	1.120	0.00	0.00	5.00	0.06
SUM	100.00			100.00	

Total Cost, \$/pound 0.98
 % Cost Diff. Relative to Current Product 34.83
 Total Cost, \$/Unit 0.24
 Recurring Costs C.E., \$/lb VOC Reduced 0.28

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Toilet and Urinal Care Product
 Subcategory: Liquid (manual)

Typical noncomp: 23 Average Unit Size 25.00 wt oz
 Proposed Limit: 3

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant Cost (B)(D)/100
Exempts & Non-solvent	3.500	7.00	7.00
LVPs	0.425	10.00	3.00
Alcohol	3.500	15.00	2.00
Fragrance	0.710	8.00	8.00
Glycol	0.002	60.00	80.00
Water			
SUM	100.00	100.00	100.00

Total Cost, \$/pound

% Cost Diff. Relative to Current Product:

Total Cost, \$/Unit

Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Toilet and Urinal Care Product
 Subcategory: Liquid (manual)

Typical noncomp: 23 Average Unit Size 25.00 wt oz
 Proposed Limit: 3

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost (B)(C)/100	% VOC Compliant Cost (B)(D)/100
Exempts & Non-solvent	7.000	7.00	7.00
LVPs	0.425	10.00	3.00
Alcohol	7.000	15.00	2.00
Fragrance	0.710	8.00	8.00
Glycol	0.002	60.00	80.00
Water			
SUM	100.00	100.00	100.00

Total Cost, \$/pound

% Cost Diff. Relative to Current Product:

Total Cost, \$/Unit

Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Toilet and Urinal Care Product
 Subcategory: Liquid (automatic)

Typical noncomp: 13 Average Unit Size
 Proposed Limit: 3

Formulation and Cost Comparison

Component (A) Exempt & Non-solvent	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)(C)/100 Cost	wt% (D)	(B)(D)/100 Cost
LVPs	3.500	25.00	0.88	25.00	0.88
Alcohol	0.425	5.00	0.02	3.00	0.01
Fragrance	3.500	10.00	0.35	2.00	0.07
Glycol	0.710	6.00	0.04	6.00	0.04
Water	0.002	54.00	0.00	64.00	0.00
SUM	100.00	100.00		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Toilet and Urinal Care Product
 Subcategory: Liquid (automatic)

Typical noncomp: 13 Average Unit Size
 Proposed Limit: 3

Formulation and Cost Comparison

Component (A) Exempt & Non-solvent	Unit Cost \$/lb (B)	Typical Non-compliant		% VOC Compliant	
		wt% (C)	(B)(C)/100 Cost	wt% (D)	(B)(D)/100 Cost
LVPs	7.000	25.00	1.75	25.00	1.75
Alcohol	0.425	5.00	0.02	3.00	0.01
Fragrance	7.000	10.00	0.70	2.00	0.14
Glycol	0.710	6.00	0.04	6.00	0.04
Water	0.002	54.00	0.00	64.00	0.00
SUM	100.00	100.00		100.00	

Total Cost, \$/pound
 % Cost Diff. Relative to Current Product
 Total Cost, \$/Unit
 Recurring Costs C.E., \$/lb VOC Reduced

Assume: (1) Cost of "All Others" remains at \$ per pound
 (2) Average unit size = ounce

Category: Wood Cleaner Low Cost
 Subcategory: Aerosol
 Typical noncomp: 25 Average Unit Size 12.00 wt oz
 Proposed Limit: 17

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost wt% (C) (B)(C)/100	% VOC Compliant wt% (D) (B)(D)/100
Water	0.002	73.00	75.00
HC Solvent (VOC)	0.380	15.00	5.00
HC Propellant	0.250	10.00	10.00
Fragrance	3.500	2.00	2.00
LVP HC Solvent	0.450		6.00
Alcohol	0.425		2.00
SUM	100.00	100.00	100.00

Total Cost, \$/pound 0.15
 % Cost Diff. Relative to Current Product -1.60
 Total Cost, \$/Unit 0.12
 Recurring Costs C.E., \$/lb VOC Reduced -0.03

Assume: (1) Cost of "All Others" remains at \$ 3.50 per pound
 (2) Average unit size = 12.00 ounce

Category: Wood Cleaner High Cost
 Subcategory: Aerosol
 Typical noncomp: 25 Average Unit Size 12.00 wt oz
 Proposed Limit: 17

Formulation and Cost Comparison

Component (A)	Unit Cost \$/lb (B)	Typical Non-compliant Cost wt% (C) (B)(C)/100	% VOC Compliant wt% (D) (B)(D)/100
Water	0.002	73.00	75.00
HC Solvent (VOC)	0.380	15.00	5.00
HC Propellant	0.250	10.00	10.00
Fragrance	7.000	2.00	2.00
LVP HC Solvent	0.450		6.00
Alcohol	0.425		2.00
SUM	100.00	100.00	100.00

Total Cost, \$/pound 0.22
 % Cost Diff. Relative to Current Product +1.10
 Total Cost, \$/Unit 0.17
 Recurring Costs C.E., \$/lb VOC Reduced -0.03

Assume: (1) Cost of "All Others" remains at \$ 7.00 per pound
 (2) Average unit size = 12.00 ounce

California Environmental Protection Agency



METHOD 310

DETERMINATION OF VOLATILE ORGANIC COMPOUNDS (VOC) IN CONSUMER PRODUCTS AND REACTIVE ORGANIC COMPOUNDS IN AEROSOL COATING PRODUCTS

(Including Appendices A and B)

Adopted: September 25, 1997

Amended: September 3, 1999

Amended: July 18, 2001

Amended: ***

DISCLAIMER: Mention of any trade name or commercial product in Method 310 does not constitute endorsement or recommendation of this product by the Air Resources Board.

METHOD 310

DETERMINATION OF VOLATILE ORGANIC COMPOUNDS (VOC) IN CONSUMER PRODUCTS AND REACTIVE ORGANIC COMPOUNDS IN AEROSOL COATING PRODUCTS

1 APPLICABILITY

- 1.1 This method (Method 310) applies to the determination of the percent by weight of:
- (1) volatile organic compounds (VOC) in consumer products, antiperspirant and deodorant products, and aerosol coatings products as those terms are defined in Title 17, California Code of Regulations (CCR), Division 3, Chapter 1, Subchapter 8.5 (Consumer Products), commencing with section 94500, and
 - (2) low vapor pressure-volatile organic compounds (LVP-VOC) as that term is defined in section 94508(a), and
 - (3) the reactive organic compounds (ROC) contained in aerosol coating products, as that term is defined in Title 17, CCR, section 94521.
- 1.2 Method 310 determines the total volatile material in a product and the presence of any compounds prohibited by ARB regulations (“prohibited compounds”). Components of the product that do not meet the definition of a VOC or are exempted by ARB regulations for a specific product category (“exempt compounds”) are subtracted from the total volatile material to determine the final VOC content for the product. Method 310 is also used to determine the percent by weight of the ROCs contained in aerosol coating products, for the purpose of determining compliance with the Regulation for Reducing the Ozone Formed from Aerosol Coating Product Emissions, Title 17, CCR, sections 94520 to 94528 (the “Aerosol Coatings Regulation”).
- 1.3 Method 310 does not apply to the determination of the composition or concentration of fragrance components in products.
- 1.4 The term “Executive Officer” as used in this document means the Executive Officer of the Air Resources Board or his or her authorized representative.

2 TEST METHODS

Method 310 incorporates by reference the following American Society for Testing and Materials (ASTM), National Institute for Occupational Safety and Health (NIOSH), and United States Environmental Protection Agency (US EPA) analytical test methods:

- 2.1 ASTM D 2369-~~97~~ 01: Standard Test Method for Volatile Content of Coatings (~~July 10, 1997~~ January 10, 2001).

- 2.2 ASTM D 1426-~~93~~ 98: Standard Test Methods for Ammonia Nitrogen in Water (~~September 15, 1993~~ December 10, 1998).
- 2.3 ASTM D 4017-96a: Standard Test Method for Water in Paints and Paint Materials by the Karl Fisher Titration Method (July 10, 1996).
- 2.4 ASTM D 3792-~~91~~ 99: Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection Into a Gas Chromatograph (~~May 15, 1991~~ May 10, 1999).
- 2.5 ASTM D 859-~~94~~ 00: Standard Test Method for Silica in Water (determination of polymethylsiloxanes after digestion) (~~May 15, 1994~~ June 10, 2000).
- 2.6 ASTM D 3074-94: Standard Test Methods for Pressure in Metal Aerosol Containers (November 15, 1994) with the modifications found in Appendix A to this Method 310.
- 2.7 ASTM D 3063-94: Standard Test Methods for Pressure in Glass Aerosol Bottles (November 15, 1994) with the modifications found in Appendix A to this Method 310.
- 2.8 ASTM D 3064-~~89~~ 97: Standard Terminology Relating to Aerosol Products (~~November 24, 1989~~ September 10, 1997).
- 2.9 NIOSH: Method 1400 Alcohols I (analysis of acetone and ethanol by gas chromatography). NIOSH Manual of Analytical Methods, Volume 1 (~~February 1984~~ August 1994).
- 2.10 Gas Chromatography/Mass Spectrometry for Volatile Organics (analysis of exempt and prohibited compounds in the product by headspace/gas chromatography/mass spectrometry).
- 2.10.1 US EPA Method 8240B, September 1994, Revision 2, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Test Methods for Evaluating Solid Waste, Volume 1 B, Chapter 4, Section 4.3.2: Laboratory Manual Physical/Chemical Methods, SW-846, September 1994.
- 2.10.2 US EPA Method 8260B, December 1996, Revision 2, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Test Methods for Evaluating Solid Waste, Volume 1 B, Chapter 4, Section 4.3.2: Laboratory Manual Physical/Chemical Methods, SW-846, December 1996.
- 2.11 US EPA Reference Method 24, Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings: 40 Code of Federal Regulations (CFR) Part 60, Appendix A, as it existed on July 1, 1994 September 11, 1995.
- 2.12 US EPA Reference Method 24A, Determination of Volatile Matter Content and Density of Printing Inks and Related Coatings: 40 CFR Part 60, Appendix A, as it existed on July 1, 1994.

- 2.13 US EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography: 40 CFR Part 60, Appendix A, as it existed on ~~July 1, 1994~~ September 25, 1996.
- 2.14 US EPA Method 300.7, March 1986. Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemically Suppressed Ion Chromatography.
- 2.15 ASTM D 86-~~96~~ 01: Standard Test Methods for Distillation of Petroleum Products (~~April 10, 1996~~ August 10, 2001).
- 2.16 ASTM D 850-~~93~~ 00: Standard Test Methods for Distillation of Industrial Aromatic Hydrocarbons and Related Materials (~~April 15, 1993~~ December 10, 2000).
- 2.17 ASTM D 1078-~~97~~ 01: Standard Test Methods for Distillation Range of Volatile Liquids (~~July 10, 1997~~ June 10, 2001).
- 2.18 ASTM D 2879-97: Standard Test Method for Vapor-Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope (April 10, 1997) with the modifications found in Appendix B to this Method 310.
- 2.19 ASTM D 2887-~~97~~ 01: Standard Test Method for Boiling Range Distribution of Petroleum Fractions by Gas Chromatography (~~April 10, 1997~~ May 10, 2001).
- 2.20 ASTM E 1719-97: Standard Test Method for Vapor Pressure of Liquids by Ebulliometry (March 10, 1997).

3 CONSUMER PRODUCTS TESTING PROCEDURE

3.1 The testing begins when the Executive Officer selects a product for analysis by Method 310. The Executive Officer will maintain sample chain of custody throughout the selection and analytical process.

3.2 Initial Testing of Aerosol Products

If the sample is an aerosol product, the aerosol propellant is separated from the ~~liquid~~ non-propellant portion of the product by using ASTM D 3074-94 (as modified in Appendix A for metal aerosol container) or ASTM D 3063-94 (as modified in Appendix A for glass aerosol container). The propellant portion is analyzed for exempt or prohibited compounds by using US EPA Reference Method 18. The remaining ~~liquid~~ non-propellant portion of the product is then analyzed as specified in section 3.3.

3.3 Initial Testing of Non-Aerosol Products and the ~~Liquid~~ Non-Propellant Portion of Aerosol Products

The ~~liquid, solid, or gel~~ non-aerosol product or non-propellant portion of an aerosol product ~~sample~~ is analyzed to determine the total volatile material present in the sample

and to determine the presence of any exempt or prohibited compounds. This analysis is conducted by performing the following tests:¹

- 3.3.1 Gravimetric analysis of samples to determine the weight percent of total volatile material, using US EPA Reference Methods 24/24A, ASTM D 2369-~~97~~ 01.
- 3.3.2 Determination of sample water content. For determination of water content either ASTM D 4017-96a, or ASTM D 3792-~~91~~ 99 may be used, or results from both procedures may be averaged and that value reported.
- 3.3.3 Determination of ammonium content using ASTM D 1426-~~93~~ 98 or US EPA Method 300.7.
- 3.3.4 Determination of ketones and alcohol content using NIOSH Method 1400.
- 3.3.5 Analysis of exempt and prohibited compounds, if present (US EPA Reference Method 18, US EPA Method 8240B, US EPA Method 8260B, ASTM D 859-~~94~~ 00, NIOSH Method 1400).
- 3.3.6 If LVP-VOC status is claimed or the analysis indicates the presence of an LVP-VOC component and the percent VOC is not in compliance, the Executive Officer will request formulation data as specified in Section 3.5.2.

3.4 Prohibited Compounds

If the sample is found to contain compounds prohibited by ARB regulations (i.e., ozone-depleting compounds) at concentrations equal to or exceeding 0.1 percent by weight, the Executive Officer will reanalyze the sample for confirmation.

3.5 Initial Determination of VOC Content

The Executive Officer will determine the VOC content pursuant to sections 3.2 and 3.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.

- 3.5.1 Using the appropriate formula specified in section 4.0, the Executive Officer will make an initial determination of whether the product meets the applicable VOC standards specified in ARB regulations. If initial results show that the product does not meet the applicable VOC standards, the Executive Officer may perform additional testing to confirm the initial results.
- 3.5.2 If the results obtained under section 3.5.1 show that the product does not meet the applicable VOC standards, the Executive Officer will request the product manufacturer or responsible party to supply product formulation data. The

¹ Alternate test methods may be used, as provided in section 7.0

manufacturer or responsible party shall supply the requested information. Information submitted to the ARB Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in Title 17, California Code of Regulations, sections 91000 to 91022.

3.5.3 If the information supplied by the manufacturer or responsible party shows that the product does not meet the applicable VOC standards, then the Executive Officer will take appropriate enforcement action.

3.5.4 If the manufacturer or responsible party fails to provide formulation data as specified in section 3.5.2, the initial determination of VOC content under this section 3.5 shall determine if the product is in compliance with the applicable VOC standards. This determination may be used to establish a violation of ARB regulations.

3.6 Determination of the LVP-VOC status of compounds and mixtures. This section does not apply to antiperspirants and deodorants or aerosol coatings products because there is no LVP-VOC exemption for these products.

3.6.1 Formulation data. If the vapor pressure is unknown, the following ASTM methods may be used to determine the LVP-VOC status of compounds and mixtures: ASTM D 86-96 01 (~~April 10, 1996~~), ASTM D 850-93 00 (~~April 15, 1993~~), ASTM D 1078-97 01 (~~July 10, 1997~~), ASTM D 2879-97 (~~April 10, 1997~~), as modified in Appendix B to this Method 310, ASTM D 2887-97 01 (~~April 10, 1997~~) and ASTM E 1719-97 (~~March 10, 1997~~).

3.6.2 LVP-VOC status of "compounds" or "mixtures." The Executive Officer will test a sample of the LVP-VOC used in the product formulation to determine the boiling point for a compound or for a mixture. If the boiling point exceeds 216°C, the compound or mixture is an LVP-VOC. If the boiling point is less than 216°C, then the weight percent of the mixture which boils above 216°C is an LVP-VOC. The Executive Officer will use the nearest 5 percent distillation cut that is greater than 216°C as determined under 3.6.1 to determine the percentage of the mixture qualifying as an LVP-VOC.

3.6.3 Reference method for identification of LVP-VOC compounds and mixtures. If a product does not qualify as an LVP-VOC under 3.6.2, the Executive Officer will test a sample of the compound or mixture used in a products formulation utilizing one or both of the following: ASTM D 2879-97, as modified in Appendix B to this Method 310, and ASTM E 1719-97, to determine if the compound or mixture meets the ~~requirements of~~ definition of LVP-VOC as specified in Title 17, CCR, section 94508(a)(78)(A).

3.7 Final Determination of VOC Content

If a product's compliance status is not satisfactorily resolved under sections 3.5 and 3.6, the Executive Officer will conduct further analyses and testing as necessary to verify the formulation data.

- 3.7.1 If the accuracy of the supplied formulation data is verified and the product sample is determined to meet the applicable VOC standards, then no enforcement action for violation of the VOC standards will be taken.
- 3.7.2 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply information to explain the discrepancy.
- 3.7.3 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the supplied formulation data, then the results of Method 310 shall take precedence over the supplied formulation data. The results of Method 310 shall then determine if the product is in compliance with the applicable VOC standards, and may be used to establish a violation of ARB regulations.

4 CALCULATION OF VOC CONTENT

This section specifies the procedure for ~~calculating and~~ determining the final VOC content of a product, which is reported as ~~a single~~ percent by weight of VOC.

4.1 Aerosol Products

4.1.1 For aerosol products, except those containing LVP-VOC, the percent VOC content shall be calculated using the following equation:

$$\% \text{ VOC} = \frac{\text{WL} (\text{TV} - \text{A} - \text{H} - \text{EL}) + \text{WP} - \text{EP}}{\text{WL} + \text{WP}} \times 100$$

Where²:

WL = weight (gm) of ~~liquid product~~ the non-propellant portion, excluding container and packaging.

TV = weight fraction of non-propellant total volatile material. ~~(US EPA Reference Methods 24/24A, ASTM D 2369-97)~~

²Alternate test methods, as provided in section 7.0 6-0, or appropriate approved methods from section 2.0 may be used.

- A = weight fraction of ammonia (as NH₄) in liquid the non-propellant portion. (ASTM D 1426-93) or US EPA Method 300.7
- H = weight fraction of water in liquid the non-propellant portion. (ASTM D 3792-91 or ASTM D 4017-96a)
- EL = weight fraction of exempt compounds in liquid the non-propellant portion (US EPA Method 8240B, US EPA Method 8260B, US EPA Reference Method 18, ASTM D 859-94, NIOSH Method 1400), ~~ASTM D 86-96, ASTM D 850-93, ASTM D 1078-97, ASTM D 2879-97, as modified in Appendix B to this Method 310, ASTM D 2887-97, ASTM E 1719-97. LVP-VOCs are exempted in accordance with section 94508(a)(78).~~
- WP = weight (gm) of propellant, ~~(ASTM D 3074-94 [as modified and include ASTM D 3064-89 or ASTM D 3063-94 [as modified and include ASTM D 3064-89)],~~ excluding container and package
- EP = weight (gm) of exempt compounds in propellant, ~~(US EPA Reference Method 18)~~

4.1.2 For aerosol products containing LVP-VOC, the percent VOC shall be calculated using the following equation:

$$\% \text{ VOC} = \frac{\text{WL}[(1-H) \times (1-LVP) - \text{EL}] + (\text{WP} - \text{EP})}{\text{WL} + \text{WP}} \times 100$$

Where:

LVP = weight fraction of LVP-VOC compounds and/or mixtures in the non-propellant, non-aqueous portion.

1 - H = weight of the non-propellant portion that does not contain water.

1 - LVP = weight of the non-propellant, non-aqueous portion that is volatile.

4.2 Non-Aerosol Products

4.2.1 For non-aerosol products, except those containing LVP-VOC, the percent VOC content shall be calculated using the following equation:

$$\% \text{ VOC} = (\text{TV} - \text{A} - \text{H} - \text{EL}) \times 100$$

4.2.2 **For non-aerosol products containing LVP-VOC, the percent VOC shall be calculated using the following equation:**

$$\% \text{ VOC} = [(1 - H) \times (1 - \text{LVP}) - \text{EL}] \times 100$$

5 TESTING TO DETERMINE REACTIVE ORGANIC COMPOUNDS IN AEROSOL COATING PRODUCTS

This section specifies the procedure for determining the percent by weight of the reactive organic compounds contained in aerosol coating products, for the purpose of determining compliance with the Aerosol Coatings Regulation.

5.1 The testing begins when the Executive Officer selects a product for analysis. The Executive Officer will maintain sample chain of custody throughout the selection and analytical process. When a product is selected for testing, the Executive Officer will request the product manufacturer or responsible party to supply the product formulation data specified in Title 17, CCR, section 94526(b)(2). The manufacturer or responsible party shall supply the requested information within 10 working days. Information submitted to the Executive Officer may be claimed as confidential; such information will be handled in accordance with the confidentiality procedures specified in sections 91000 to 91022, Title 17, CCR.

5.2 Initial Testing of the Propellant Portion of Aerosol Coating Products

The aerosol propellant is separated from the non-propellant portion of the product by using ASTM D 3074-94 (as modified in Appendix A for metal aerosol container) or ASTM D 3063-94 (as modified in Appendix A for glass aerosol container). The propellant portion is analyzed for reactive organic compounds and other compounds by using US EPA Reference Method 18. The remaining non-propellant portion of the product is then analyzed as specified in section 5.3.

5.3 Initial Testing of the Non-Propellant Portion of Aerosol Coating Products

The non-propellant portion of the product sample is analyzed to determine the reactive organic compounds in the sample, including the presence of any prohibited compounds. This analysis is conducted by performing the following tests:³

5.3.1 Gravimetric analysis of samples to determine the weight percent of total volatile material, using US EPA Reference Methods 24/24A, ASTM D 2369-~~97~~ **01**.

5.3.2 Determination of sample water content. For determination of water content either ASTM D 4017-96a, or ASTM D 3792-~~94~~ **99** may be used, or results from both procedures may be averaged and that value reported.

³ Alternate test methods may be used, as provided in section 7.0

- 5.3.3 Determination of ammonium content using ASTM D 1426-~~93~~ 98 or US EPA Method 300.7.
- 5.3.4 Determination of ketones and alcohol content using NIOSH Method 1400.
- 5.3.5 Analysis of reactive organic compounds and, if present, prohibited compounds (US EPA Reference Method 18, US EPA Method 8240B, US EPA Method 8260B, ASTM D 859-~~94~~ 00, NIOSH Method 1400).

5.4 Prohibited Compounds

If the sample is found to contain compounds prohibited by the Aerosol Coatings Regulation (e.g., ozone-depleting compounds) at concentrations equal to or exceeding 0.1 percent by weight, the Executive Officer will reanalyze the sample for confirmation.

5.5 Initial Determination and Verification of Reactive Organic Compound Content

The Executive Officer will determine the reactive organic compound content by verifying formulation data pursuant to sections 5.2 and 5.3. Only those components with concentrations equal to or greater than 0.1 percent by weight will be reported.

- 5.5.1 Based on manufacturers formulation data and the analysis conducted under section 5, the Executive Officer will make an initial determination of whether the product meets the applicable requirements specified in the Aerosol Coatings Regulation. If initial results show that the product does not meet the applicable requirements, the Executive Officer may perform additional testing to confirm the initial results.

5.6 Final Determination of Reactive Organic Compound Content

If a product's status is not satisfactorily resolved under section 5.1 - 5.5, the Executive Officer may conduct additional analyses and testing as necessary to verify the formulation data.

- 5.6.1 If the Executive Officer is unable to verify the accuracy of the supplied formulation data, then the Executive Officer will request the product manufacturer or responsible party to supply additional information to explain the discrepancy.
- 5.6.2 If the additional information supplied by the manufacturer or responsible party shows that the product does not meet the applicable requirements, then the Executive Officer will take appropriate enforcement action.
- 5.6.3 If the manufacturer or responsible party fails to provide additional information as specified in section 5.6.1, the initial determination of reactive organic compound content under section 5.1 – 5.5 shall determine if the product is in compliance with the applicable reactive organic compound limits. This determination may be used to establish a violation of the Aerosol Coatings Regulation.

- 5.6.4 If there exists a discrepancy that cannot be resolved between the results of Method 310 and the formulation data or additional information supplied by the manufacturer or responsible party, then the results of Method 310 shall take precedence over the supplied formulation data or additional information. The results of Method 310 shall then determine if the product is in compliance with the applicable requirements, and may be used to establish a violation of the Aerosol Coatings Regulation.

6 METHOD PRECISION AND ACCURACY

- 6.1 The precision of Method 310 for determining VOC content was evaluated using seven representative products with known volatile organic compound (VOC) contents ranging from 6.2 to 81.2 percent VOC by weight. Each sample was divided into six portions, and each portion was separately analyzed to determine the VOC content. Based on the results of this analysis, the 95 percent confidence interval for Method 310 is 3.0 percent by weight (Wt/Wt%).
- 6.2 For determining the percent by weight of the individual ingredients in aerosol coating products, the precision and accuracy of the determination for each ingredient is governed by the precision and accuracy of the test method used to ascertain the percent by weight of each ingredient.

7 ALTERNATE TEST METHODS

Alternative test methods which are shown to accurately determine the concentration of VOCs or constituent components in antiperspirant/deodorants, consumer products, or aerosol coating products (or their emissions) may be used upon written approval of the Executive Officer.

Method 310 - Appendix A

PROPELLANT COLLECTION PROCEDURES

1 APPLICATION

The procedure applies to modify ASTM D 3074-94 and D 3063-94 to allow collection of the propellant for analysis and density measurement for metal aerosol containers and glass aerosol containers, respectively. These modified procedures also retain the aerosol standard terminology listed in ASTM D 3064-~~89~~ 97. ~~The aerosol product container is pierced and the propellant is bled into an evacuated manifold. After the manifold reaches atmospheric pressure, approximately 1 liter of the propellant is collected in a clean, evacuated Tedlar bag. For density measurement the propellant is collected into an evacuated 250 mL glass dilution bulb that has been weighed to the nearest 0.1 mg. After filling, the dilution bulb is re-weighed to determine the density of the propellant. Alternately, density may be determined using a Density/Specific Gravity Meter. The Tedlar bag with the propellant aliquot is taken to the laboratory for analysis.~~

2 LIMITATIONS

Nitrogen analysis: Nitrogen may be used as a component of the propellant system. Ambient air is 78 percent nitrogen and may be present as a contaminate in the system prior to sample collection. This is eliminated by ~~completely evacuating the propellant collection system~~ and sweeping out any connecting lines to the Tedlar bag with product before starting sample collection. This procedure will eliminate or reduce nitrogen contamination to less than 0.1% by weight of the sample and the analysis of the propellant gas will be unaffected.

3 APPARATUS AND MATERIALS

- 3.1 Propellant Collection System [†]: See Figure 1 (*metal containers*) and Figure 3 (*glass containers*). ~~The system was built from 1/4" stainless steel and Teflon tubing. The vacuum pump is of bellows diaphragm design.~~
- 3.2 Tedlar Bags, ~~1 liter~~, equipped with slip valve and septum
- 3.3 Density Measurement
 - 3.3.1 250 mL gas dilution bulb, or

[†] ~~The metal piercing adapter is available from Mid-West Screw Products, Inc., 3523 North Kenton Ave., Chicago, IL 60641. Interim Part Number: 8013A 3/4 Longer SS. The gasket is available from Alltech Associate 2051 Waukegan road, Deerfield, IL 60015, part number 80-16. The glass aerosol adapter is available from Modern Machine Shop, Inc. P.O. Box 826, 123 N. Hazel Street, Danville, IL 61832.~~

3.3.2 Density/Specific gravity meter meeting the following minimum specifications:

~~3.3.2(a) Measurement Method: Natural Oscillation Type~~

~~3.3.2(b) .1 Measurement Range: 0 – 3 +/- 0.00001 g/cm³~~

~~3.3.2(e) .2 Measurement Temperature Range: 4°C ~ 70°C.~~

~~3.3.2(d) Temperature Accuracy: +/- 0.02°C (10°C ~ 30°C) and +/- 0.05°C (4°C ~ 70°C).~~

~~3.3.2(e) Temperature Control Accuracy: +/- 0.01°C.~~

~~3.3.2(f) Measurement Time: 1 – 4 minutes.~~

~~3.4 Gas tight syringe, 100 µl~~

~~3.5 4 Balance, capable of accurately weighing to 0.1 mg~~

~~3.6 5 Can Piercing Sample Venting Platform. See Figure 2 (metal cans containers)¹ and Figure 3 4 (glass containers)².~~

~~3.7 6 Platform Shaker, equivalent to Thermolyne M49125~~

~~3.7 Cork Rings, 80 x 32 mm~~

4 PROCEDURE

4.1 Propellant Collection for Metal Aerosol Containers

4.1.1 ~~Turn on vacuum pump, c~~Close valves and ~~evacuate the system~~ on Propellant Collection System (see Figure 1).

4.1.2 Remove the ~~valve~~ actuator from valve on the aerosol can and weigh can to the nearest 0.01 g. ~~Invert the can into cork holding ring on the piercing apparatus, center and snug against the gasket. (Figure 2)~~

¹ The metal piercing adaptor is available from Mid-West Screw Products, Inc., 3523 North Kenton Ave., Chicago, IL 60641. Interim Part Number: 8013A-3/4 45TAPER REV. The gasket is available from Alltech Associate 2051 Waukegan road, Deerfield, IL 60015, part number 80-16.

² The glass aerosol tapered adaptor is available from Armstrong Technologies, Inc. 12780 Earhart Ave., Auburn, CA 95602.

- 4.1.3 ~~Connect Tedlar bag to output 2, evacuate bag and seal. Connect 250 mL glass dilution bulb to output 1, evacuate bulb and seal. Place the can in an inverted position onto the Sample Venting Platform, stabilized by cork rings.~~
- 4.1.4 Slowly raise the hydraulic jack until the can is pierced. ~~Record~~ Note the pressure of the can.
- 4.1.5 Vent the can until ~~the pressure is at about 25 psi~~ propellant is seen flowing from output 1. Collect the propellant in the Tedlar bag, from output 1. Density is determined from this same Tedlar bag, as necessary.
- 4.1.6 After the propellant is collected, close and remove the Tedlar bag and vent the remainder of the propellant.
- 4.1.7 ~~Weigh the evacuated 250 mL bulb to the nearest 0.1 mg. Use gloves while handling the bulb. Connect the bulb to the Tedlar bag and open to fill the bulb. Close the valves and re-weigh the dilution bulb, record the weight gain and calculate the propellant density in gm/L.~~
- ~~4.1.8~~ 4.1.7 After the flow ceases from the can, it is removed from the assembly and allowed to vent overnight. ~~The can may be placed~~ on a platform shaker, to vent the remainder of the propellant.
- ~~4.1.9~~ 4.1.8 Reweigh the can to the nearest 0.01 gm and record weight loss (total gms propellant). The can may now be opened for analysis of the ~~liquid product~~ non-propellant portion of the sample.
- 4.2 Propellant Collection for Glass Aerosol Containers
- 4.2.1 ~~Turn on vacuum pump, close valves and evacuate the system (see Figure 1).~~
- 4.2.2 ~~Connect Tedlar bag to output 2, evacuate bag and seal. Connect 250 mL glass dilution bulb to output 1, evacuate bulb and seal.~~
- 4.2.3 ~~The gauge assembly is prepressurized in order to minimize product expulsion and system contamination.~~
- 4.2.4 4.2.1 Remove the actuator from valve of the aerosol glass container, and weigh container to the nearest 0.01 gm.
- 4.2.5 4.2.2 With container in an inverted position place the valve onto the tapered adaptor. ~~Bring the top plate down to the flat of the container and tighten the nuts. A cork ring may be required to stabilize the container~~

- 4.2.3 Pressurize the air cylinder to actuate the sample container valve onto the tapered adaptor. Note the pressure of the sample container.
- ~~4.2.6~~ 4.2.4 ~~Record pressure of container and vent until the pressure is approximately one-half of recorded pressure~~ Open the sample valve and cCollect propellant sample into the Tedlar bag. Density is determined from this same Tedlar bag, as necessary.
- ~~4.2.7~~ 4.2.5 After the propellant is collected, close and remove the Tedlar bag and vent the remainder of the propellant.
- ~~4.2.8~~ Weigh the evacuated 250 mL bulb to the nearest 0.1 mg. Use gloves while handling the bulb. Connect the bulb to the Tedlar bag and open to fill the bulb. Close the valves and re-weigh the dilution bulb, record the weight gain and calculate the propellant density in gm/L.
- ~~4.2.9~~ 4.2.6 Continue to vent the container on the platform assembly ~~overnight~~ until no pressure registers on the sample gauge and there is no visible propellant flowing from the sampling tube.
- ~~4.2.10~~ 4.2.7 Remove the container from the platform ~~and loosen valve assembly, do not remove valve assembly at this time.~~
- 4.2.8 Loosen and remove the container valve assembly.
- ~~4.2.11~~ 4.2.9 Place the container on a platform shaker to vent the remainder of the propellant.
- ~~4.2.12~~ 4.2.10 Reweigh the container and valve assembly to the nearest 0.01 gm and record weight loss (total gms propellant). ~~The container may now be opened for analysis of the liquid product~~ non-propellant portion of the sample is ready to be analyzed.

FIGURE 1

PROPELLANT COLLECTION SYSTEM
METAL AEROSOL CONTAINER

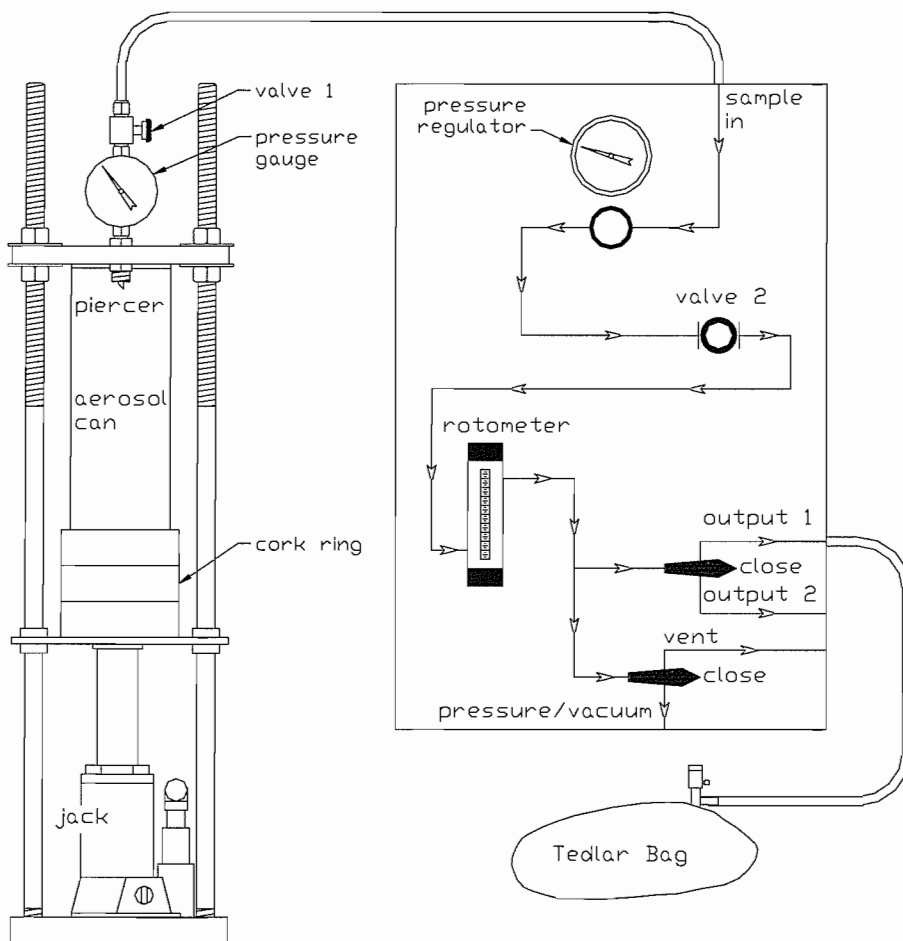


FIGURE 2

**SAMPLE VENTING PLATFORM
METAL AEROSOL CONTAINER**

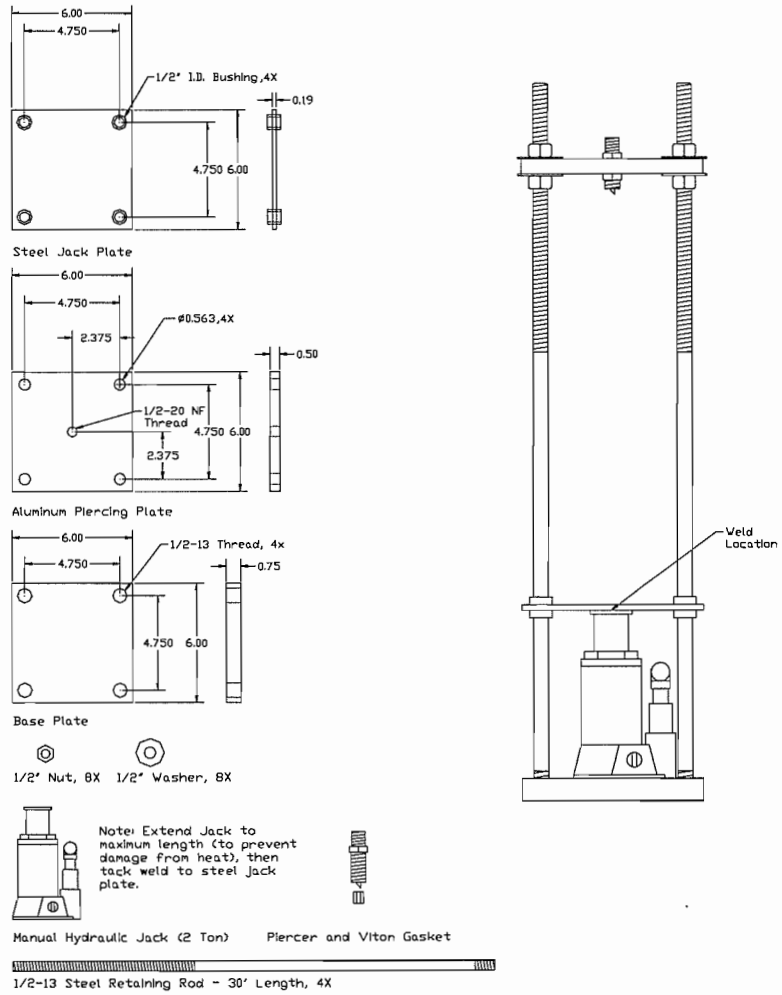


FIGURE 3

PROPELLANT COLLECTION SYSTEM
GLASS AEROSOL CONTAINER

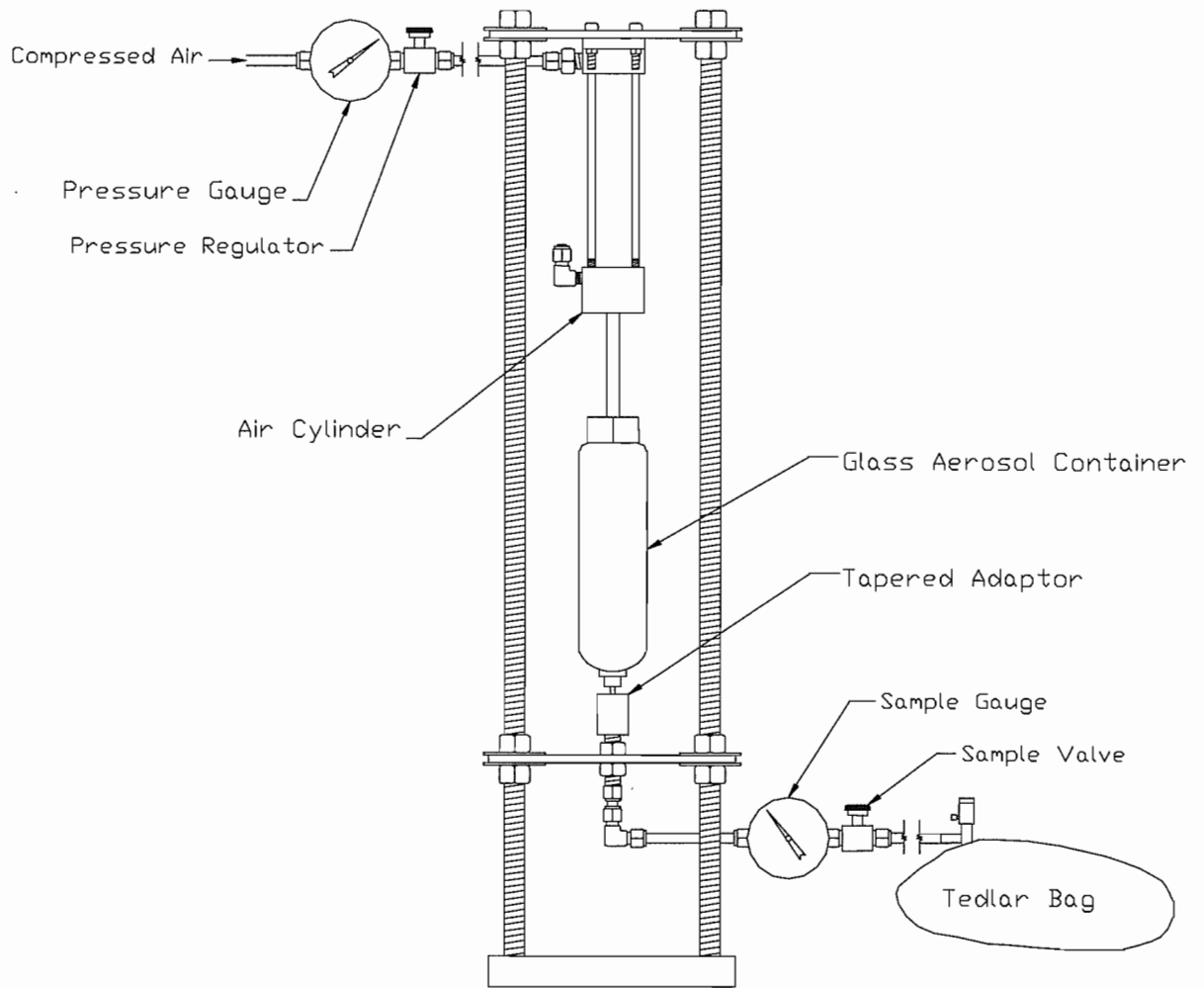
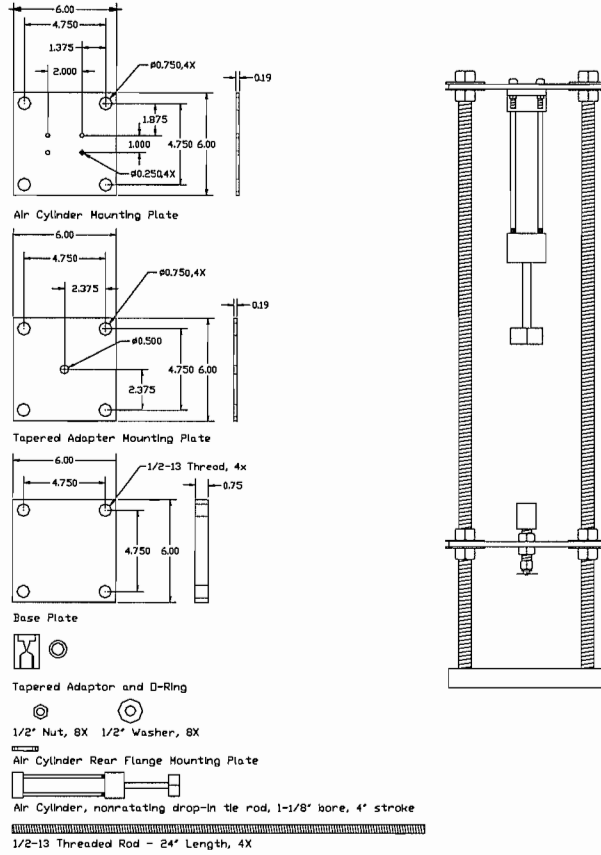


FIGURE 4

**SAMPLE VENTING PLATFORM
GLASS AEROSOL CONTAINER**



Method 310 - Appendix B

MODIFICATIONS to ASTM D-2879-97 (~~April 10, 1997~~)

This procedure modifies ASTM D-2879-97 (~~April 10, 1997~~) as follows:

1. Modifications to the isoteniscope apparatus include:
 - a. capacitance manometers and digital readout
 - b. manifold system made of stainless steel and modified in design
 - c. Ultra-torr fittings and Ultra-torr flex-lines
 - d. ballast on the vacuum side of the isoteniscope manifold as depicted in ASTM D 2879-97 schematics, has been removed.
 - e. stainless steel liquid nitrogen trap (Cold Trap)
 - f. stainless steel high vacuum valves
 - g. recirculating cooling system (required for extremely low pressure work only)
 - h. diffusion pump (required for extremely low pressure work only)
 - i. hot ion cathode vacuum gauges (required for extremely low pressure work only)
2. A purge and degassing procedure consisting of lower pressures and a liquid nitrogen bath replaces the step of lightly boiling the sample as outlined in ASTM D 2879-97.
3. Purge and Degassing Cycle
 - a. With the U-tube connected, the system is evacuated to approximately 1.0 mm Hg. This readily removes most of the higher volatility gases from the sample.
 - b. The stainless steel, liquid nitrogen cold trap is filled. The manifold is now brought to approximately 300 mm Hg with the purified nitrogen, regulated through the needle valve.
 - c. The isoteniscope tube is carefully placed into a Dewar of liquid nitrogen. The $\frac{1}{2}$ atmosphere pressure of nitrogen prevents the sample from splashing while being frozen. After the sample freezes, the system is evacuated to 0.05 mm Hg.
 - d. The U-tube is removed from the Dewar, secured and allowed to warm to room temperature. The U-tube bulb head should be angled so the dissolved gases will be readily evacuated as the frozen sample starts to melt. When gases build up, it may be necessary to tilt the U-tube to release the gases.
 - e. Repeat the freeze and degas process once, reducing pressure each time to less than 0.05 mm Hg. After the sample has returned to room temperature, close valve #3. There should be minimal dissolved gases left once the frozen sample starts to melt. Tilt the tube to release any gas pockets (if necessary). Do not push nitrogen into the evacuated

space between the sample in the arm and the sample in the reservoir. At this point, if the sample is properly degassed, a “natural break” should form in the sample. This creates a vapor space as the liquid level in the bulb leg of the manometer falls to a quasi-equilibrium position, usually with the fluid level higher in the long manometer leg. If there is no pendulum effect, and the liquid level in the long leg of the manometer is significantly higher than the level in the short leg (> 2 mm), degassing is probably incomplete, and the degassing procedure should be repeated.

4. Data Evaluation

The regression based on the plot of Log P vs. 1/T as outlined in ASTM D 2879-97 has been removed and replaced with a nonlinear regression to generate the coefficients for an Antoine equation. The data analysis procedure assumes that the measured pressure is the sum of the compound’s vapor pressure and a residual fixed gas pressure. The vapor pressure’s dependence on absolute temperature is represented by an Antoine expression, and the fixed gas as pressure is directly proportional to absolute temperature as outlined in ASTM 2879. This leads to the model equations:

$$P_{\text{model}} = P_{\text{vapor}} + P_{\text{fixed gas}}$$

$$P_{\text{model}} = B0 * 10^{(B1/(T + B2))} + B3 * T$$

where T is the absolute temperature (K) and B0, B1, B2 and B3 are coefficients to be determined via a nonlinear regression which minimizes the sum of squares

$\sum (P_{\text{meas}} - P_{\text{model}})^2$ for all experimental data points. The vapor pressure at 20° C is then calculated as:

$$P_{\text{vapor}} (293.15 \text{ K}) = B0 * 10^{(B1/(293.15 + B2))}$$

With a set of pressure vs. temperature measurements, the nonlinear regression can be performed using a statistical software packages. The following constraints are imposed to obtain meaningful Antoine equation coefficients for low vapor pressure samples:

- a. Pressures shall be measured at temperatures ranging from room temperature to about 180° C. Narrower ranges will not provide sufficient information to determine the

Antoine curvature, i.e., B2 coefficient. Wider ranges can lead to experimental difficulties maintaining the vapor space in the isoteniscope. A minimum of 12 points is necessary to provide ample degrees of freedom for the calculations.

- b. Initial pressures at room temperature shall be less than 1 mm Hg. Higher values are indicative of significant levels of dissolved fixed gases. These will vaporize during the course of the experiment as temperature is increased and invalidate the model's assumption for the fixed gas contribution.
- c. $-235 \leq B_2 \leq 0$. Positive values of B2 imply that the heat of vaporization of the substance increases with increasing temperature. Thermodynamic data for many compounds suggests this is unrealistic. Large negative values can lead to unrealistically low vapor pressure values coupled with excessive fixed gas contributions. The -235(K) bound is chosen to be consistent with literature values of B2 for many pure compounds. For hydrocarbons in the LVP-VOC range, $B_2 \geq -100$ provides reasonable agreement between measured and literature vapor pressures.
- d. The fixed gas coefficient, B3, should normally be ≥ 0 .

Figure 1

ISOTENISCOPE VAPOR PRESSURE MEASUREMENT APPARATUS

