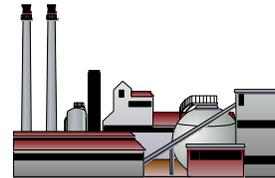
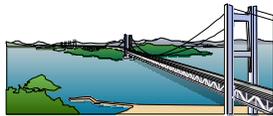
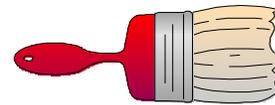
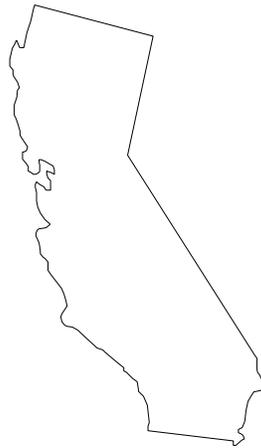


Appendix A:
1998 Survey Questionnaire

Architectural and Industrial Maintenance Coatings Survey

1998



California Environmental Protection Agency

Air Resources Board

SURVEY CONTENTS

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SUBMITTAL OF FORMS

Please return the completed survey to the following address:

California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812
ATTN: SSD/Criteria Pollutants Branch
Architectural Coatings Survey

ELECTRONIC SUBMITTAL OPTIONS

Electronic submittal options are available. Details can be obtained by contacting the ARB or by visiting our web site at "www.arb.ca.gov/arch/arch.htm."

Additional survey packages can also be downloaded from this site.

QUESTIONS

If you have any questions or other requests please call:

Mike Jaczola	or write	California Air Resources Board
tel 916.327.1515		P.O. Box 2815
or		Sacramento, CA 95812
Jim Behrmann		ATTN: SSD/Criteria Pollutants Branch
tel 916.322.8273		Architectural Coatings Survey
		tel 916.322.6020 fax 916.322.6088

INTRODUCTION

Thank you for participating in this survey of architectural and industrial maintenance coatings!

As general introduction, the survey asks you to complete four forms:

FORM I: Company information

FORM II: Product information

FORM III: Ingredient information for single or grouped products

FORM IV: Ingredient information for single or grouped products

If your company is the *responsible party*, please complete FORM I and the appropriate number of FORMS II, III, and IV.

“Responsible party” means the company, firm or establishment which is listed on the products’ 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.

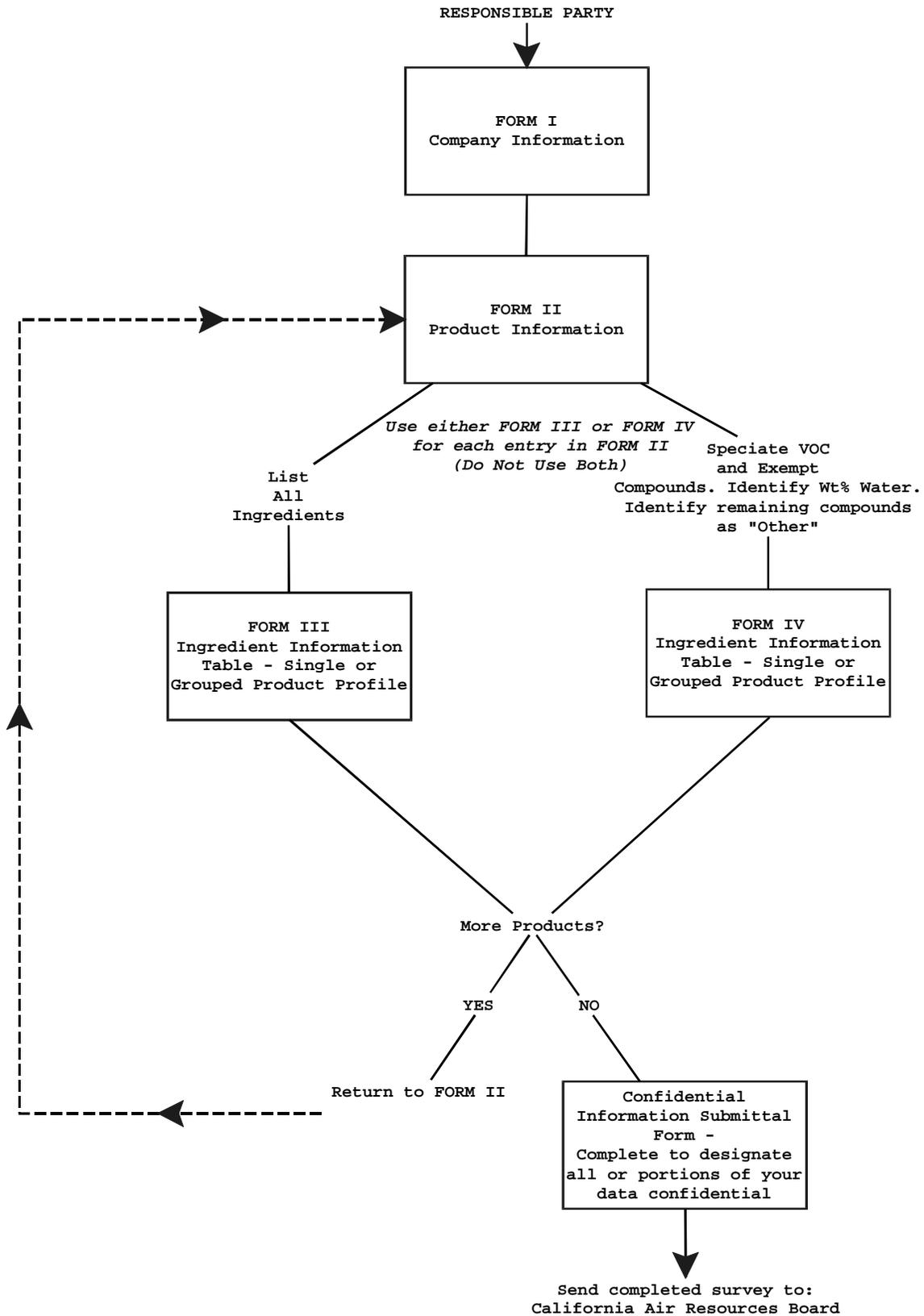
If your company is not the *responsible party* for any architectural and industrial maintenance coating sold in California, please complete and submit only the top portion of FORM I to the Air Resources Board.

How will this survey information be used? Our existing inventory of air pollution emissions from architectural coatings is based on a survey of 1990 information that was last collected in 1993. Inventory information is necessary for planning and modeling to forecast the effects of new regulatory efforts. Accurate inventory information produces better results, and also assures that businesses are properly credited for successful reductions in emissions. Finally, the ingredient information requested will be used to study whether or not additional flexibility can be built into regulations based on the reactivity of ingredients.

We have tried to make this survey as simple as possible. As noted in the accompanying cover letter, we worked with several air pollution control districts as well as several industry members and the National Paint and Coatings Association on the content of the survey. However, you may very well have questions as you complete the survey. Do not hesitate to call us and we will answer your questions as quickly as possible.

Thank you again, in advance, for your time and participation in this survey.

FLOW DIAGRAM FOR RESPONSIBLE PARTY



INSTRUCTIONS FOR COMPLETING SURVEY FORM I

The following instructions apply to FORM I - Company Information. General company information such as name and address are needed, as well as information regarding the company economics and business type. This information will assist in characterizing the types of businesses that are included in the survey as required by state law.

If your company is the *responsible party* please complete FORM I and the appropriate number of FORMS II, III, and IV.

"Responsible party" means the company, firm or establishment which is listed on the products' 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.

If your company is not the *responsible party* for any architectural and industrial maintenance coating please complete and submit only the top portion of FORM I to the ARB.

Company Name: Please enter the name of the company also known as **responsible party**. This name should also be the company name on FORM II - Product Information.

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

Address: Enter the mail address of the company or division responsible for completing the survey.

Contact Name: Name of the person to be contacted by the ARB if there are questions about the survey responses.

Title: Business title of the contact person.

Telephone: Telephone number for the contact person.

Fax: Fax number of the contact person.

Responsible Party: Check the appropriate box (Yes or No) to indicate if your company is the responsible party (see definition above) for any architectural and industrial maintenance coatings that were sold in California.

Note: If you are not the responsible party please stop here and submit FORM I to the California Air Resources Board, P.O. Box 2815, Sacramento, CA 95812 ATTN: SSD/Criteria Pollutants Branch - Architectural Coatings Survey.

Type of Business: Check the box(s) that describes the primary type of business conducted by your company or division.

Company Marketing Classification: Check the box that describes your company's primary marketing classification.

Independent Ownership: Check the appropriate answer box (Yes or No) to indicate if the company is independently owned. If the company is not independently owned, enter the name and address of the parent company in the spaces provided.

Standard Industrial Classification (SIC) codes: Enter your company's primary SIC codes (see page 21).

Gross Annual Receipts: Check the box which identifies the gross annual receipts generated by the company or division in California.

Employees: Check the box which identifies the number of employees (including part-time and temporary staff) of the company or division.

Certification: Please have a designated contact person certify the accuracy of the completed Company Information (FORM I), Product Information (FORM II), and the Ingredient Information Tables (FORM III & IV).

INSTRUCTIONS FOR COMPLETING SURVEY FORM II

This form requests specific information on each product or grouping of products. As explained below, products may be grouped under certain conditions. Only complete FORM II Product Information if you are the *responsible party* for a product sold in California during the calendar year 1996.

Entry #: Enter a number (1, 2, ...) for each entry on FORM II. This number will be used to relate products listed in this table to the ingredient information table in Forms III and IV.

Coating Code: Enter the code from the list below which best represents the reported coatings' category (see definitions on pages 12 - 17).

<u>Code</u>	<u>Coating</u>	<u>Code</u>	<u>Coating</u>	<u>Code</u>	<u>Coating</u>
01	Antenna	22	Magnesite cement		Stains:
02	Anti-fouling	23	Mastic texture	41	clear
03	Anti-graffiti	24	Metallic pigmented	42	semitransparent
04	Bituminous	25	Multi-color	43	opaque
05	Bond breakers		Nonflats:	44	low solids
06	Chalkboard	26	High Gloss	45	Swimming Pool
	resurfacers	27	Medium Gloss	46	Swimming Pool
07	Concrete Curing	28	Low Gloss		Repair
	Compounds	29	Nuclear	47	Thermoplastic rubber
08	Dry Fog	30	Pre-treatment Wash		and mastics
09	Extreme high		Primers	48	Traffic
	durability	31	Primers, Sealers and		Varnish:
	Fire retardant:		Undercoaters	49	clear
10	clear		Quick dry:	50	semitransparent
11	opaque	32	Enamels		Waterproofing
12	Flats	33	Primers, Sealers		sealers:
13	Floor		and Undercoaters	51	clear
14	Flow	34	Repair & maintenance	52	opaque
15	Form release		thermoplastic		Wood preservatives:
	compounds	35	Roof	53	below ground
16	Graphic arts (sign)	36	Rust preventative	54	clear
17	Heat reactive	37	Sanding sealers	55	semitransparent
18	High Temperature	38	Sealers	56	opaque
19	Industrial		Shellacs:	57	low solids
	Maintenance	39	clear	58	Other (Identify
	Lacquer:	40	opaque		use/application)
20	clear				
21	opaque				

Number of Coatings Grouped - Enter the number of individual coatings that are grouped as one entry. Color varieties of a coating that remain within one VOC range should be considered as one coating. Enter "1" if you are reporting one coating individually.

In reporting products for the survey, coatings within a coating category can be **reported either individually or as a group**. However, you may group coatings in a category together only if the following conditions are met:

- (1) The coatings belong to the same category (e.g., flats - category code 12). Color varieties of the same coating formulation should be considered one coating;
- (2) The coatings have the same carrier technology (e.g., solvent-borne, water-borne, 100% solids, etc.); and
- (3) The coatings have VOC contents (less water and less exempt compounds) that are within one VOC range.

<u>Range g/l</u>	<u>Range g/l</u>	<u>Range g/l</u>
0 - 50	251 - 300	501 - 550
51 - 100	301 - 350	551 - 600
101 - 150	351 - 400	601 - 650
151 - 200	401 - 450	651 - 700
201 - 250	451 - 500	701 and above

Interior/Exterior/Dual: Indicate whether the coating or coatings are designed for "interior" or "exterior" application. Enter "Dual" for dual purpose interior/exterior products.

Carrier Technology: Identify the carrier technology of the coating(s): Solvent-borne (SB), Water-borne (WB), or 100% Solids (S).

Note: Use "Sales Weighted Average" (SWA) for the next four data fields if you have chosen to group coatings. These entries include: % by volume solids, VOC Actual, VOC Regulatory, and VOC Regulatory after recommended thinning. See calculations on pages 18 and 19, and page 22 for sample calculation of SWA for VOC Regulatory.

% by Volume Solids^{SWA}: Enter the solids content of the coating(s) as percent of total coating volume. (See calculations on pages 18 & 19)

Density^{SWA}: Enter the mass per unit volume of the coating (g/l).

VOC Actual^{SWA}: Enter the VOC content of the coating(s), as supplied, in grams of VOC per liter of coating. This is the weight of all volatile materials less the weight of water and less the weight of exempt compounds per the entire volume of the coating. This is NOT the same as VOC Regulatory. (See calculations pages 18 & 19)

VOC Regulatory^{SWA}: Enter the VOC content of the coatings(s), as supplied, in grams of VOC per liter of coating, less water, less exempt compounds, and less any colorant added to the tint bases. This may be determined from the chemical composition data or previously determined by EPA Method 24, 40 CFR Part 60, as amended in Federal Register Vol. 57, No. 133, July 10, 1992, or ASTM D 3960-92. (See calculations on pages 18 & 19) Do not perform additional analysis for purposes of completing this survey.

Recommended Thinning: If manufacturer recommends thinning identify the diluent and ratio (e.g., mix 1 gal of product with ½ pint mineral spirits). Thinning information usually can be found on the coating can, label, or any other accompanying literature from the manufacturer.

VOC Regulatory After Recommended Thinning^{SWA}: Enter the VOC Regulatory after recommended thinning of the coating(s) in grams of VOC per liter of Material. (See calculations on pages 18 & 19) NOTE - Use of water or an exempt solvent without co-solvents for thinning will not affect the VOC Regulatory content of the coating.

1996 California Sales in Gallons: Enter the California sales of the coating, in gallons, for the calendar year 1996. Identify those gallons which are sold in containers one quart or less, and containers larger than one quart.

Estimating California Sales: If California specific sales data are not available, sales may be estimated using national or regional sales figures that are apportioned appropriately. If you use population as a basis for determining sales, please use the U.S. Resident Population estimates provided on page 20 of this survey.

Comments: Enter any information that will help clarify entries made for FORM II.

Page ____ of ____: Enter the current page # out of the total pages submitted for FORM II.

INSTRUCTIONS FOR COMPLETING SURVEY FORM III
Ingredient Information Table
Single or Grouped Product Profile

FORM III requests ingredient information about single or grouped products. Use FORM III if you have elected to provide all product ingredients. In this table provide all ingredients which are part of the products' formulation. Provide this information for each entry in FORM II.

For grouped products, report the ingredients of the sales leader in the group.

Entry # From FORM II: Enter the Entry # from FORM II to which this ingredient list applies.

Ingredient #: Provide a numeric value (sequential) for each ingredient.

Ingredient Name: Enter the chemical name of the ingredient. Chemical names must be distinguished from trade names. For example, the chemical name of SD 40 Alcohol is ethanol. Enter the trade name of the ingredient if the chemical name is unknown.

CAS#: Please enter the Chemical Abstract Service (CAS) number for the ingredient. A listing of CAS numbers is included as Attachment B for your information.

Weight % (of total material): Enter the percent by weight of each ingredient in the final product. If the ingredient is a mixture of known components, list the components separately with their individual weight percentages in the final product. If the components of a mixture cannot be determined, list the ingredient as a single entity.

Reporting Level - List ingredients that individually amount to 1.0% or greater by weight of the final product.

Aggregated Ingredients < 1.0%: Aggregate each of the remaining ingredients that individually account for less than 1.0% of the final product and enter the weight percent.

Total of All Ingredients: The sum of all ingredients in the table must equal 100 percent by weight. If this value does not sum to 100, please check the component percentages.

Comments: Enter any information that will help clarify entries made for FORM III.

Page ____ of ____: If the ingredient list for one entry from FORM II spans multiple pages enter the current page # of the total.

INSTRUCTIONS FOR COMPLETING SURVEY FORM IV
Ingredient Information Table
Single or Grouped Product Profile

FORM IV requests ingredient information about single or grouped products. Use FORM IV if you have elected to identify each Volatile Organic Compound (VOC) and Exempt Compound (Exempt VOC). Any VOCs less than 1.0 percent by weight should be aggregated and entered as a single weight percent value. Any Exempt Compounds less than 1.0 percent by weight should be aggregated and entered as a single weight percent value. Identify the weight percent water. Any remaining ingredients should be included in "All Other" for a total of all ingredients equaling 100 percent by weight of the product. Provide this information for each entry in FORM II.

For grouped products, report the ingredients of the sales leader in the group.

Entry # From FORM II: Enter the Entry # from FORM II to which this ingredient list applies.

Ingredient #: Provide a numeric value (sequential) for each ingredient.

Ingredient Name: Enter the chemical name of the ingredient. Chemical names must be distinguished from trade names. For example, the chemical name of SD 40 Alcohol is ethanol. Enter the trade name of the ingredient if the chemical name is unknown.

CAS#: Please enter the Chemical Abstract Service (CAS) number for the ingredient. A listing of CAS numbers is included as Attachment B.

Weight % (of total material): Enter the percent by weight of each ingredient in the final product. If the ingredient is a mixture of known components, list the components separately with their individual weight percentages in the final product. If the components of a mixture cannot be determined, list the ingredient as a single entity.

Reporting Level - List ingredients that individually amount to 1.0% or greater by weight of the final product.

VOCs: Enter the name, CAS #, and percent by weight of each VOC in the final product.

Exempt Compounds (Exempt VOCs): Enter the name, CAS #, and percent by weight of each Exempt VOC in the final product.

Aggregated VOCs < 1.0%: Aggregate each of the remaining VOCs that individually account for less than 1.0% of the final product and enter the weight percent.

Aggregated Exempt Compounds < 1.0%: Aggregate each of the remaining Exempt Compounds that individually account for < 1.0% of the final product and enter the weight percent.

ALL Other (Remaining Ingredients): Enter remaining non-volatile ingredients.

Total of All Ingredients: The sum of all ingredients in the table must equal 100 percent by weight. If this value does not sum to 100, please check the component percentages. This means that the following:

<u>Ingredient Groups</u>	<u>Wt%</u>
Sum of VOCs	#
Sum of Exempt Compounds	#
Aggregated VOCs < 1.0%	#
Aggregated Exempt Compounds < 1.0%	#
Water	#
All Other	#
	<hr/>
Total of All Ingredients	100%

Comments: Enter any information that will help clarify entries made for FORM IV.

Page ____ of ____: If the ingredient list for one entry from FORM II spans multiple pages enter the current page # of the total.

DEFINITIONS

Antenna Coating: means a coating formulated and recommended for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.

Anti-fouling Coating: means a coating formulated and recommended for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms.

Anti-Graffiti Coatings: Industrial maintenance coatings formulated for and applied to exterior surfaces to resist repeated scrubbing and exposure to harsh solvents and cleaners used to remove graffiti.

Appurtenance: means any accessory to a stationary structure, whether installed or detached at the proximate site of installation, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lamp posts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

Architectural Coatings: Coatings applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs.

Bituminous Coating: Coatings formulated and recommended for roofing, pavement sealing, or waterproofing that incorporates bitumens. Bitumens are black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits of asphalt or as residues from the distillation of crude petroleum or coal.

Bond Breakers: Coatings applied between layers of concrete to prevent the freshly poured top layer of concrete from bonding to the layer over which it is poured.

Carbonates: Carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

Chalkboard Resurfacer: means a coating formulated and recommended for application to chalkboards to restore a suitable surface for writing with chalk.

Clear Coating: means a coating that produces a dry film that allows light to pass through, so that the substrate may be distinctly seen.

Clear Wood Finishes: Clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

Coating: means a protective, decorative, or functional film applied to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, enamels, and temporary protective coatings.

Colorant: Solutions of dyes or suspensions of pigments that are added to coatings during production, in paint stores or on-site to produce the desired colors.

Concrete Curing Compounds: Coatings applied to freshly poured concrete to retard the evaporation of water.

Density: Mass per unit volume.

Dry Fog Coatings: Coatings formulated only for spray application such that over spray droplets dry before subsequent contact with other surfaces.

Exempt Compounds: means any of the following organic compounds (compounds with negligible photochemical reactivity):

methane;	[74-82-8]*
methylene chloride (dichloromethane);	[75-09-2]
1,1,1-trichloroethane (methyl chloroform);	[71-55-6]
trichlorofluoromethane (CFC-11);	[75-69-4]
dichlorodifluoromethane (CFC-12);	[75-43-4]
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);	[76-13-1]
1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);	[76-14-2]
chloropentafluoroethane (CFC-115);	[76-15-3]
chlorodifluoromethane (HCFC-22);	[75-45-6]
1,1,1-trifluoro-2,2-dichloroethane (HCFC-123);	[306-83-2]
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);	[2837-89-0]
1,1-dichloro-1-fluoroethane (HCFC-141b);	[1717-00-6]
1-chloro-1,1-difluoroethane (HCFC-142b);	[75-68-3]
trifluoromethane (HFC-23);	[75-46-7]
pentafluoroethane (HFC-125);	[354-33-6]
1,1,2,2-tetrafluoroethane (HFC-134);	[359-35-3]
1,1,1,2-tetrafluoroethane (HFC-134a);	[811-97-2]
1,1,1-trifluoroethane (HFC-143a);	[420-46-2]
1,1-difluoroethane (HFC-152a);	[75-37-6]
cyclic, branched, or linear completely methylated siloxanes;	[various]
the following classes of perfluorocarbons:	[various]
(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 only to carbon and fluorine; and	

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

acetone;	[67-64-1]
ethane;	[74-84-0]
[perchloroethylene]**; and	[127-18-4]
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene).	[98-56-6]

* NOTE: Chemical Abstract Service (CAS) identification numbers have been included in brackets [] for convenience.

** The Air Resources Board exempted Perchloroethylene from the definition of VOC in the Consumer Products regulations in November 1996. Perchloroethylene is under evaluation for other inventory categories.

Exterior Coating: means an architectural coating formulated and recommended for use in conditions exposed to the weather.

Extreme High Durability Coating: means an air dry fluoropolymer-based coating that is formulated and recommended for the protection of architectural subsections and that meets the weathering requirements of American Architectural Manufacturer's Association specification 605.2 Section 7.9.

Fire-Retardant Coatings: Coatings which have a flame spread index of less than 25 when tested in accordance with ASTM Designation E-84-87, " Standard Test Method for Surface Burning Characteristics of Building Material," after application to Douglas Fir according to the manufacturer's recommendations.

Flat Architectural Coatings: Coatings which register a gloss of less than 15 on an 85 degree meter or less than 5 on a 60 degree meter.

Floor Coating: means a coating that is formulated and recommended for application to flooring including, but not limited to, decks, porches, and steps and that has a high degree of abrasion resistance.

Flow coating: means a coating that is used by electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.

Form Release Compounds: Coatings applied to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

Graphic Arts Coatings (Sign Paints): Coatings formulated for and hand-applied by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers and bulletin enamels.

Heat Reactive Coating: means a high performance phenolic-based coating requiring a minimum temperature of 191 °C (375 °F) to 204 °C (400 °F) to obtain complete polymerization or cure. These coatings are formulated and recommended for commercial and industrial use to protect substrates from degradation and maintain product purity in which one or more of the following extreme conditions exist:

1. Continuous or repeated immersion exposure to 90 to 98 percent sulfuric acid or oleum;
2. Continuous or repeated immersion exposure to strong organic solvents;
3. Continuous or repeated immersion exposure to petroleum processing at high temperatures and pressures; and
4. Continuous or repeated immersion exposure to food or pharmaceutical products which may or may not require high temperature sterilization.

Importer: A company, group, or individual that brings architectural coatings from a location outside the United States into the United States for sale or distribution within the United States.

High Temperature Coatings: Industrial maintenance coatings formulated for and applied to substrates exposed continuously or intermittently to temperatures above 400 ° F.

Industrial Maintenance Coatings: High performance coatings formulated for and applied to substrates in industrial, commercial, or institutional situations that are exposed to one or more of the following extreme environmental conditions:

- (I) immersion in water, waste water, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
- (ii) acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, chemical mixtures, or solutions;
- (iii) repeated exposure to temperatures in excess of 250 ° F;
- (iv) repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial solvents, cleansers, or scouring agents; or
- (v) exterior exposure of metal structures.

Industrial Maintenance Coatings are not for residential use or use in areas of industrial, commercial, or institutional facilities which do not experience industrial environmental conditions such as office space and meeting rooms.

Interior Coating: means an architectural coating formulated and recommended for use in conditions not exposed to natural weathering.

Label: Any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any architectural coating container for purposes of branding, identifying, or giving information with respect to the product, use of the product, or contents of the container.

Lacquers: Wood finishes formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction, including lacquer sanding sealers.

Low Solids Stains and Wood Preservatives: Stains and wood preservative containing one pound or less of solids per gallon (120 grams per liter) of coating material and for which at least half of the volatile component is water.

Magnesite Cement Coatings: Coatings formulated for and applied to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

Manufacturer: A company, group, or individual that produces, packages, or repackages architectural coatings for sale or distribution in the United States.

Mastic Texture Coatings: Coatings formulated to cover holes and minor cracks and to conceal surface irregularities, and applied in a thickness of at least 10 mils (dry, single coat).

Metallic Pigmented Coatings: Coatings containing at least 0.4 pounds of metallic pigment per gallon of coating as applied.

Multi-Color Coating: Coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat.

Nonflat Architectural Coatings: Coatings which register a gloss of 15 or greater on an 85 degree meter or 5 or greater on a 60 degree meter.

Nonflats - high gloss: Nonflat coatings which register a gloss of 70 or more on a 60 degree meter.

Nonflats - medium gloss: Nonflat coatings which register a gloss of 20 or more but less than 70 on a 60 degree meter.

Nonflats - low gloss: Nonflat coatings which register a gloss greater than 5 or more but less than 20 on a 60 degree meter.

Nuclear Coating: means any protective coating used to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure (American Society for Testing and Materials Method D4082), relatively easy to decontaminate (American Society for Testing and Materials Method D4256), and resistant to various chemicals to which the coatings are likely to be exposed (American Society for Testing and Materials Method D3912). General protective requirements are outlined by the Department of Energy (formerly U.S. Atomic Energy Commission Regulatory Guide 1.54).

Opaque Coating: A coating producing a dry film that does not allow light to pass through, so that the substrate is concealed from view.

Pre-treatment Wash Primers: Coatings which contain a minimum of 0.5% acid by weight, applied directly to bare metal surfaces to provide necessary surface etching.

Primers: Coatings formulated and applied to substrates to provide a firm bond between the substrate and subsequent coats.

Quick Dry Enamels: Non-flat coatings which comply with the following:

- (I) capable of being applied directly from the container by brush or roller under normal conditions, normal conditions being temperatures between 60 °F and 80°F.
- (ii) when tested in accordance with ASTM D 1640, they shall: set to touch in two hours or less, dry hard in eight hours or less, and be tack free in four hours or less by the mechanical test method.

(iii) shall register a gloss of 70 or more on a 60 degree meter.

Quick Dry Primers, Sealers and Undercoaters: Primers, sealers and undercoaters which are dry to touch in one-half hour and can be re-coated in two hours, when tested in accordance with ASTM D1640.

Responsible Party: The company, firm or establishment which is listed on the products's label. If the label list 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.

Repair and maintenance thermoplastic coating: means an industrial maintenance coating that has vinyl or chlorinated rubber as a primary resin and is recommended solely for the repair of existing vinyl or chlorinated rubber coatings without the full removal of the existing coating system.

Roof Coatings: Coatings formulated for application to exterior roofs and for the primary purpose of preventing water penetration, or reflecting heat or ultraviolet radiation.

Rust preventive coating: means a coating formulated and recommended for use in preventing the corrosion of ferrous metal surfaces in residential situations.

Sanding Sealers: Clear wood coatings formulated for and applied to bare wood for sanding and to seal the wood for subsequent application of varnish.

Sealers: A coating formulated for and applied to a substrate to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

Semitransparent Coating: A coating formulated and recommended for application to substrates to impart a desired color without completely concealing the surface or its natural texture or grain pattern.

Shellacs: Clear or pigmented coatings formulated solely with the resinous secretions of the lac beetle (*laccifer lacca*), thinned with alcohol, and forms a film by solvent evaporation without chemical reaction.

SIC (Standard Industrial Classification) Code: A United States Department of Commerce system that organizes all industry types in the United States. Each business establishment is classified according to its primary activity, signified by a four digit SIC code.

Specific Gravity: The ratio of the mass of a solid or liquid to the mass of an equal volume of distilled water at 4 °C (39 °F).

Stain: Clear and semitransparent solution or suspension of coloring matter (dyes or pigments or both) in a vehicle, designed to color a surface (usually wood) by penetration without hiding it or leaving a continuous film.

SWA: Sales Weighted Average (see calculations pages 18 & 19)

Swimming Pool Coatings: Coatings formulated and used to coat the interior of swimming pools and compatible with swimming pool water chemistry.

Swimming Pool Repair Coatings: Chlorinated rubber based coatings used for the repair and maintenance of swimming pools over existing chlorinated rubber based coatings.

Thermoplastic Rubber Coating and Mastic: A coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than 40 percent by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients including, but not limited to, fillers, pigments, and modifying resins.

Tint Base: means a coating to which colorant is added to produce a desired color.

Traffic Coatings: Coatings formulated for and applied to public streets, highways and other surfaces including, but not limited to, curbs, berms, driveways, and parking lots.

Undercoaters: Coatings formulated and applied to substrates to provide a smooth surface for subsequent coats.

Varnishes: Clear wood finishes formulated with various resins to dry by chemical reaction on exposure to air.

Volatile Organic Compound (VOC): Any compound of carbon, excluding carbonates (carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate), and exempt compounds.

VOC Actual: Weight of all volatile materials less the weight of water and less the weight of exempt compounds per the entire volume of the coating. This is NOT the same as VOC Regulatory. See calculations pages 18 & 19.

VOC Regulatory: Enter the VOC content of the coatings(s), as supplied, in grams of VOC per liter of coating, less water, less exempt compounds, and less any colorant added to the tint bases. This may be determined from the chemical composition data or previously determined by EPA Method 24, 40 CFR Part 60, as amended in Federal Register Vol. 57, No. 133, July 10, 1992, or ASTM D 3960-92. See calculations pages 18 & 19.

Waterproofing Sealers: Coatings formulated and applied for the sole purpose of protecting porous substrates by preventing the penetration of water and which do not alter the appearance or texture of the substrate.

Wood Preservatives: Coatings which are formulated to protect wood from decay and insect attack.

CALCULATIONS

VOC Content Calculations

The following equations can be used to calculate entries contained in Form II of this survey.

$$VOC_{Actual} = \frac{W_{vm} - W_w - W_e}{V_c} \qquad VOC_{Regulatory} = \frac{W_{vm} - W_w - W_e}{V_c - V_w - V_e}$$

$$VOC_{Regulatory (Low Solids)} = \frac{W_{vm} - W_w - W_e}{V_c} \quad \text{Use for low solid stains and wood preservatives}$$

Where:

W_{vm}	=	Total weight of volatile materials (VOC+water+exempt compounds) in the coating, in grams
W_w	=	Weight of water in the coating, in grams
W_e	=	Weight of exempt compounds in the coating, in grams
V_c	=	Total volume of the coating, in liters
V_w	=	Volume of water in the coating, in liters
V_e	=	Volume of exempt compounds in the coating, in liters

VOC Regulatory After Recommended Thinning

The following equation can be used to calculate VOC after the coatings are thinned with VOC containing solvents.

$$VOC_{After Recommended Thinning} = \frac{Volume_{Coating} \times VOC_{Regulatory} + Volume_{Thinner} \times VOC_{Thinner}}{Volume_{Coating} + Volume_{Thinner}}$$

Percent Volume of Solids

The following are two equations that can be used to calculate the percent volume of solids. The choice of equation depends on the type of information that is known about the coating.

- (1) If the weight and density of all of the solid (nonvolatile) materials are known, then the following equation may be used:

$$\% \text{ by Volume of Solids} = \frac{Weight \text{ of Solids}}{Density \text{ of Solids} \times Volume \text{ of Coating Material}} \times 100$$

(2) If instead, only the volatile components of a coating (VOC, water and exempt compound) are known, the percent volume of solids may be estimated by the following equation.

$$\% \text{ by Volume Solids} = \left(1 - \frac{W_w}{D_w \times V_c} - \frac{W_{voc}}{D_{voc} \times V_c} - \frac{W_e}{D_e \times V_c} \right) \times 100$$

Where:

- W_w = Weight of water in the coating, in grams
- W_{voc} = Weight of VOC in the coating, in grams
- W_e = Weight of exempt compounds in the coating, in grams
- D_w = Density of water, in grams per liter
- D_{voc} = Density of VOC, in grams per liter
- D_e = Density of exempt compounds, in grams per liter
- V_c = Total volume of the coating, in liters

Sales Weighted Average Calculation

The Sales Weighted Average (SWA) is an average value for grouped coatings, calculated by weighting the individual values by their sales. For grouped coatings in this survey, the SWA should be used to report the following entries on FORM II (Product Information): % by Volume Solids, Density, VOC Actual, VOC Regulatory, and VOC Regulatory after recommended thinning. Coatings can be grouped only if they are within the same coatings category, the same VOC range, and if they are based on the same carrier technology. The following equation can be used to calculate Sales Weighted Average.

$$SWA = \frac{(Value_1 \times Sales_1 + Value_2 \times Sales_2 + \dots + Value_n \times Sales_n)}{Sales_1 + Sales_2 + \dots + Sales_n}$$

Where:

- $Value_{(1,2,...,n)}$ = Coating characteristic values (e.g. % by Volume of Solids, Density, VOC Actual, VOC Regulatory, VOC Regulatory after thinning) for products 1,2,...,n
- $Sales_{(1,2,...,n)}$ = Sales for products 1,2,...,n

Conversion Factors

VOC Regulatory (weight per volume):
 one pound VOC per gallon (US) = 119.82 grams VOC per liter

- Units of Volume:
- 1 fl oz = 0.029574 liters
- 1 liquid pint = 0.47318 liters
- 1 liquid quart = 2 liquid pints = 0.94635 liters
- 1 gallon = 4 liquid quarts = 3.7854 liters

Units of Mass:

Unit	ounce(oz)	pound(lb)	gram(g)	kilogram(kg)
1 oz =	1	0.0625	28.3495	0.02834
1 lb =	16	1	453.592	0.45359

UNITED STATES RESIDENT POPULATION
July 1, 1995

United States Total = 262,755,000

<u>STATE</u>	<u>THOUSANDS</u>	<u>RANK</u>	<u>STATE</u>	<u>THOUSANDS</u>	<u>RANK</u>
Alabama	4,253	22	Montana	870	44
Alaska	604	48	Nebraska	1,637	37
Arizona	4,218	23	Nevada	1,530	38
Arkansas	2,484	33	New Hampshire	1,148	42
California	31,589	1	New Jersey	7,945	9
Colorado	3,747	25	New Mexico	1,685	36
Connecticut	3,275	28	New York	18,136	3
Delaware	717	46	North Carolina	7,195	11
District of Columbia	554	(X)	North Dakota	641	47
Florida	14,166	4	Ohio	11,115	17
Georgia	7,201	10	Oklahoma	3,278	27
Hawaii	1,187	40	Oregon	3,141	29
Idaho	1,163	41	Pennsylvania	12,072	5
Illinois	11,830	6	Rhode Island	990	43
Indiana	5,803	14	South Carolina	3,673	26
Iowa	2,842	30	South Dakota	729	45
Kansas	2,565	32	Tennessee	5,256	17
Kentucky	3,860	24	Texas	18,724	2
Louisiana	4,342	21	Utah	1,951	34
Maine	1,241	39	Vermont	585	49
Maryland	5,042	19	Virginia	6,618	12
Massachusetts	6,074	13	Washington	5,431	15
Michigan	9,549	8	West Virginia	1,828	35
Minnesota	4,610	20	Wisconsin	5,123	18
Mississippi	2,697	31	Wyoming	480	50
Missouri	5,324	16			

X = Not Applicable

Source: U.S. Bureau of the Census (Table 27, 1996 Statistical Abstract of the United States)

SIC CODES

The SIC codes below represent only portions of Manufacturing, Wholesale Trade and Retail Trade. The list is by no means all inclusive, but represents a useful reference if your company SIC code is not known. A full listing is available from the ARB upon request. Complete listings and detailed descriptions are also available via the internet.

CHEMICALS AND ALLIED PRODUCTS

2810 -- Industrial Inorganic Chemicals
2812 -- Alkalies and chlorine
2813 -- Industrial gases
2816 -- Inorganic pigments
2819 -- Industrial inorganic chemicals, not elsewhere classified
2820 -- Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic, etc.
2821 -- Plastics materials and resins
2822 -- Synthetic rubber
2823 -- Cellulosic manmade fibers
2824 -- Organic fibers, noncellulosic
2843 -- Surface active agents
2850 -- Paints, Varnishes, Lacquers, Enamels, and Allied Products
2851 -- Paints and allied products
2860 -- Industrial Organic Chemicals
2861 -- Gum and wood chemicals
2865 -- Cyclic crudes and intermediates
2869 -- Industrial organic chemicals, not elsewhere classified
2890 -- Miscellaneous Chemical Products
2891 -- Adhesives and sealants
2895 -- Carbon black
2899 -- Chemical preparations, not elsewhere classified

WHOLESALE TRADE

5085 -- Industrial Supplies
5160 -- Chemicals and Allied Products
5169 -- Chemicals & allied products, not elsewhere classified
5198 -- Paint products wholesale

RETAIL

5211 -- Lumber & bldg mtl retail
5231 -- Paint, glass, and wallpaper stores
5251 -- Hardware stores

Example Data sheet

The example data below corresponds to the completed survey forms on the pages that follow. This example is provided only to help you understand how the survey form should be completed. **You do not have to provide your data in the format shown below for the survey.**

Product Example #1

FORM II - Product Information Sheet

Page Number 1 of 1

Entry #: 1	Density: 1,438 g/l
Coating Code/Type: 27/Interior nonflat - medium gloss	VOC Actual (g/l): 1 = 80, 2 = 100, 3 = 120, SWA = 104
# of grouped coatings: 3 products grouped	VOC Regulatory: 1 = 120, 2 = 160, 3 = 180
Interior/Exterior/Dual: Interior	SWA = 160 (see sample calculation below)
Carrier Technology: Water-borne	Recommended Thinning: None/Not Applicable (N/A)
% by volume solids: product 1 = 40, 2 = 38, 3 = 48	Diluent: None/Not Applicable
Sales Weighted Average (SWA) = 43	VOC Regulatory after recommended thinning: N/A

Sales Information (containers > than 1 quart): 1 = 50,000, 2 = 80,000, 3 = 100,000, Total = 230,000 gallons.

Sample calculation:

$$VOC\ Regulatory^{SWA} = \frac{(Value_1 \times Sales_1 + Value_2 \times Sales_2 + \dots + Value_n \times Sales_n)}{Sales_1 + Sales_2 + \dots + Sales_n}$$

$$VOC\ Regulatory^{SWA} = \frac{(120g/l \times 50,000gal + 160g/l \times 80,000gal + 180g/l \times 100,000gal)}{50,000gal + 80,000gal + 100,000gal} = 160$$

FORM III - Ingredient Information Table

XYZ Company lists all ingredients.

Product Example #2

FORM II - Product Information Sheet

Page Number 1 of 1

Entry #: 2

Coating Code/Type: 19/Industrial maintenance

of grouped coatings: individual product

Interior/Exterior/Dual: Exterior

Carrier Technology: Solvent-borne

% by volume solids: 67

Density: 1,200 g/l

VOC Actual (g/l): 290 g/l

VOC Regulatory: 338 g/l

Recommended Thinning: 1 gallon product with 1/10
gallon mineral spirits

Diluent: Mineral Spirits (820 g/l VOC)

VOC Regulatory after recommended thinning: 381 g/l

Sales Information: 7,000 one quart containers (1,750 gallons) and 30,000 one gallon containers.

FORM IV - Ingredient Information Table

XYZ speciates VOC and exempt compounds. Identifies Wt% water. Remaining Wt% is identified under all other.

FORM I

Company Information

Company / Division Name: XYZ Company	
Address: 1111 South Windham Road, Lansing, MI, 22222	
Contact Person: John Doe	Title: Manager, Product Compliance
Telephone: (999) 999-9999	Fax: (999) 999-9998
RESPONSIBLE PARTY (✓ check appropriate box) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If you answered "NO" to Responsible Party please stop here and submit FORM I to CARB.

TYPE OF BUSINESS (✓ check all that apply)

- Manufacturer
- Importer
- Retailer
- Private label contract packager
- Custom contract packager

COMPANY MARKETING CLASSIFICATION

- International
- National
- California Statewide
- California Regional - If so, which parts:

INDEPENDENT OWNERSHIP

Is your company independently owned?

- YES NO

If No, please provide parent company information below.

Parent Company Name:

--

Parent Company Address:

SIC CODES (Enter primary SIC codes)

5231		
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COMPANY - GROSS ANNUAL RECEIPTS

- Less than \$500,000
- Between \$500,000 and \$1 million
- Between \$1 million and \$2 million
- Between \$2 million and \$5 million
- Between \$5 million and \$10 million
- Between \$10 million and \$100 million
- More than \$100 million
- More than \$1 billion

EMPLOYEES

- Less than 10
- Between 10 and 100
- Between 100 and 250
- Between 250 and 500
- More than 500

CERTIFICATION

I hereby certify that, to the best of my knowledge and belief, all information entered on the Company Information Form, and Product Information Form is complete and accurate.

Name: John Doe	Title: Manager, Product Compliance
Signature: X	Date Signed: April 30, 1998

<i>FOR ARB USE ONLY</i>	Company Code:	Total # of Pages Submitted:
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FORM IV

Ingredient Information Table - Single or Grouped Product Profile

Entry # from FORM II: 2	Speciate Volatile Organic Compounds (VOCs) and Exempt Compounds. Identify the Wt% of water. Identify the remaining Wt% of other compounds as "other".			
Ingredient #	Ingredient Name (Trade name if ingredient name is unknown) <i>Begin by speciating VOCs first, then speciate Exempt Compounds</i>	CAS #	Wt. %*	
	VOCs			
1	VOC #1	XXXX-XX-X	XX	
2	VOC #2	XXXX-XX-X	XX	
3	VOC #3	XXXX-XX-X	XX	
	EXEMPT COMPOUNDS (Exempt VOCs)			
4	Exempt Compound #1	XXXX-XX-X	XX	
	Aggregated VOCs <1.0%	Various	XX	
	Aggregated Exempt Compounds < 1.0%	Various	XX	
COMMENTS		WATER	XX	
		ALL OTHER	XX	
		TOTAL OF ALL INGREDIENTS (Must Equal 100%)		100

* Wt% is the weight % of the ingredient in the total weight of the product. List ingredients that amount to 1.0% or greater by weight of the product.

Page 1 of 1 If the ingredient list for one entry from FORM II spans multiple pages enter current page # of the total. Photocopy this page as necessary.

ATTACHMENT A

Architectural and Industrial Maintenance Coatings

1998

SURVEY FORMS

California Environmental Protection Agency

Air Resources Board

CONFIDENTIAL INFORMATION SUBMITTAL FORM

If you wish to designate any information contained in your survey data as **CONFIDENTIAL INFORMATION**, please provide the data requested below and return it with your completed survey form.

In accordance with Title 17, California Code of Regulations (CCR), sections 91000 to 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© 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 provides that air pollution emission data are always public records, even if the data comes within the definition of trade secrets. On the other hand, the information used to calculate information is a trade secret.

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. The 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.

In accordance with the provisions of Title 17, California Code of Regulations, sections 91000 to 91022, and the California Public Records Act (Government Code Sections 6250 et seq.),

Company Name: _____ declares that only those portions specifically identified 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. All inquiries pertaining to the confidentiality of this information should be directed to the following person:

Name (print only): _____

Signature: _____

Title: _____

Telephone #: _____

Company Address: _____

FORM I

Company Information

Company / Division Name:	
Address:	
Contact Person:	Title:
Telephone:	Fax:
RESPONSIBLE PARTY (✓ check appropriate box) <input type="checkbox"/> YES <input type="checkbox"/> NO	
If you answered "NO" to Responsible Party please stop here and submit FORM I to CARB.	

TYPE OF BUSINESS (✓ check all that apply)

- Manufacturer
- Importer
- Retailer
- Private label contract packager
- Custom contract packager

COMPANY MARKETING CLASSIFICATION

- International
- National
- California Statewide
- California Regional - If so, which parts:

INDEPENDENT OWNERSHIP

Is your company independently owned?

- YES NO

If No, please provide parent company information below.

Parent Company Name:

--

Parent Company Address:

SIC CODES (Enter primary SIC codes)

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COMPANY - GROSS ANNUAL RECEIPTS

- Less than \$500,000
- Between \$500,000 and \$1 million
- Between \$1 million and \$2 million
- Between \$2 million and \$5 million
- Between \$5 million and \$10 million
- Between \$10 million and \$100 million
- More than \$100 million
- More than \$1 billion

EMPLOYEES

- Less than 10
- Between 10 and 100
- Between 100 and 250
- Between 250 and 500
- More than 500

CERTIFICATION

I hereby certify that, to the best of my knowledge and belief, all information entered on the Company Information Form, and Product Information Form is complete and accurate.

Name:	Title:
Signature:	Date Signed:

<i>FOR ARB USE ONLY</i>	Company Code:	Total # of Pages Submitted:
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ATTACHMENT B

CHEMICAL ABSTRACT SERVICE (CAS) NUMBER AND SYNONYMS

The following list of compounds and their associated CAS numbers was compiled from the U.S. EPA survey of Consumer Products database. This database had a field for the VOC's in each product and a field for their associated CAS numbers. These fields were compiled into a separate database, sorted, corrected, and duplicate items were removed. All synonyms (different name, same CAS #) that were not redundant were retained.

In addition, this list of compounds includes species profiles that were obtained from water-borne and solvent-borne coatings under ARB Contract # 93-319, "Improvement of Species Profiles for Architectural and Industrial Maintenance Coating Operations."

The list is by no means all inclusive, but provides a useful reference when the CAS number for a product ingredient cannot be found. We encourage individuals responding to the survey to use their product ingredient's listed CAS numbers when they are available. This is especially important when listing the hydrocarbons, because many ingredients may have the same name, but different CAS numbers. For example, kerosene, mineral spirits, naphtha, petroleum distillate and others may each have several different CAS numbers reflecting differences in product grade.

If access to the internet is available survey respondents can take advantage of chemical databases available via the World Wide Web. One useful example of this is the Chemfinder WebServer Project. The Chemfinder Webserver is a chemical database that performs searches using one or all of the following criteria: name, formula, molecular weight, melting point, boiling point, CAS #, and structure. If the search finds a match detailed information is provided about the compound (e.g., synonyms, specific gravity, flash point, MSDS, DOT #, etc.). The last pages of this Attachment include an example search performed using Chemfinder Webserver.

CARB CHEMICAL NAME/CAS NUMBER LIST

Alphabetical Order		By CAS Number	
Chemical Name	CAS #	Chemical Name	CAS #
#2 Diesel Fuel	68476346	1-Acetoxy-2-butoxyethane (2-Butoxyethyl acetate)	11272
(1,1,1) Trichloroethane	71556	Methanol	49120
(MCP) Dimethylamine salt	32351705	cis-Decalin	49316
1 - Octadecanol	112925	trans-Decalin	49327
1,1,1,2,2,3,3,4,4-nonfluoro-4-methoxy-butane (C4F9OCH3)	*****	FORMALDEHYDE	50000
1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)	431630	Formalin Formaldehyde	50000
1,1,1,2,3,4,4,5,5,5-Decafluoropentane (HFC 43-10mee)	*****	Lactic Acid	50215
1,1,1,2,3-Pentafluoropropane (HFC-245eb)	431312	Lactic AcidEDTA	50215
1,1,1,2-Tetrafluoroethane (HFC-134a)	811972	Sorbitol (D-Glucitol, C6H14O6)	50704
1,1,1,3,3,3-Hexafluoropropane (HFC-236fa)	690391	SORBITOL (D-Glucitol, C6H14O6)	50704
1,1,1,3,3-Pentafluorobutane (HFC-365mfc)	406586	Piperonyl Butoxide	51036
1,1,1,3,3-Pentafluoropropane (HFC-245fa)	460731	Piperonyl Butoxide, Technical	51036
1,1,1-oxybisethane	60297	Technical piperonyl butoxide	51036
1,1,1-trichloroethane	79016	Trichlorfon	52686
1,1,1-Trichloroethane (Methyl chloroform)	71556	Nitroglycerin (1,2,3-propanetriol, trinitrate)	55630
1,1,1-Trifluoro-2,2-dichloroethane (HCFC-123)	306832	Dipropylene Triamine	56188
1,1,1-Trifluoroethane (HFC-143a)	420462	Carbon tetrachloride	56235
1,1,2,2,3-Pentafluoropropane (HFC-245ca)	679867	1,2,3-Propanetriol	56815
1,1,2,2-Tetrachloroethylene	127184	Glycerin	56815
1,1,2,2-Tetrafluoroethane (HFC-134)	359353	Vegetable Glycerin	56815
1,1,2,3,3-Pentafluoropropane (HFC-245ea)	24270664	CARBAMIDE	57136
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	76131	1,2 Propanediol	57556
1,1,2-Trichloroethylene	79016	Propylene Glycol	57556
1,1,3,3-Tetramethylcyclohexane	24770647	Lindane (hexachlorocyclohexane)	58899
1,1-dichloro-1-fluoroethane (HCFC-141b)	25167888	Ethylene Diamine Tetra Acetate	60004
1,1-Difluoroethane (HFC-152a)	75376	ETHYLENE DIAMINE TETRA ACETATE	60004
1,1-Methylene-bis-4-Isocyanobenzene)	101688	1,1,1-oxybisethane	60297
1,2 Propanediol	57556	Diethyl Ether	60297
1,2,3-Propanetriol	56815	Ethyl Ether	60297
1,2,3-Trimethylbenzene	526738	Dimethoate	60515
1,2,4-Trimethylbenzene	95636	Dimethoate - Technical	60515
1,2,4-Trimethylbenzene (pseudo-Cumene)	95636	Dimethoate Insecticide Concentrate	60515
1,2,4-Trimethylcyclohexane	2234755	Dichlorvos	62737
1,2-Butylene Oxide (ethyl oxirane)	106887	1-Naphthyl-n-methylcarb-amate	63252
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC-114)	76142	Carbaryl	63252
1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)	354234	Carbaryl - Technical	63252
1,2-Ethanediol	107211	cis-1,3-Dimethylcyclohexane	63840
1,3,5-Trimethylbenzene (Mesitylene)	108678	Tetrasodium EDTA	64028
1,3-Butylene Glycol	107880	Alcohol	64175
1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	507551	ALCOHOL SDA	64175
1,3-Dimethyl-5-ethylbenzene	934747	Denatured Ethyl Alcohol	64175
1,4 Diglycidylloxybutane	2425798	denatured ethyl alcohol (w/ camphor)	64175
1,4-BENZENEDIOL	123319	ETHANOL	64175
1,4-bis-bromoacetoxy-2-butene	20679587	Ethyl Alcohol	64175
1,4-Dichlorobenzene	106467	Ethyl Alcohol SDA	64175
1,4-dioxane	123911	SD Alcohol 38	64175
1,6-DIISOCYANTO-HEXANE	822061	SD Alcohol 40	64175
1-(2-butoxyethoxy)-2-propanol	124163	SD-Alcohol	64175
1-Acetoxy-2-butoxyethane (2-Butoxyethyl acetate)	11272	SDA	64175
1-Amino-2-Propanol	78966	SDA-38B	64175
1-Butanol	71363	SDA-40 (Denatured Alcohol)	64175
1-Butoxy-2-propanol	5131668	SDA-40B Alcohol (Ethanol)	64175
1-Chloro-1,1-difluoroethane (HCFC-142b)	75683	Formic acid	64186
1-Chloro-1-fluoroethane (HCFC-151a)	1615754	FORMIC ACID (90%)	64186
1-Chloro-4-trifluoromethyl benzene (Parachlorobenzotrifluoride)	98566	Methanoic acid	64186
1-Ethoxy-1,1,2,2,3,3,4,4,4-nonfluorobutane (C4F9OC2H5)	*****	Acetic Acid	64197
1-Ethyl-2-methylbenzene (o-Ethyltoluene)	611143	Acetic Acid 100%	64197
1-Ethyl-3-methylbenzene (m-Ethyltoluene)	620144	ACETIC ACID GLACIAL	64197
1-Ethyl-4-methylbenzene (p-Ethyltoluene)	622968	Methanol	67561
1-Methoxy-2-propanol	107982	Methanol Alcohol	67561
1-Methoxy-2-Propanol Acetate	108656	Methyl Alcohol	67561
1-Methoxy-2-Propyl acetate	108656	2-Propanol	67630
1-METHYL - 4 -(1-METHYLETHENYL) CYCLOHEXENE	59892725	Dimethyl Carbinol	67630
1-METHYL-1-PHENYLETHYL HYDROPEROXIDE	80159	IPA	67630
1-Methyl-2-propylcyclohexane	4291796	Isopropanol	67630
1-METHYL-2-PYRROLIDONE	872504	Isopropyl Alcohol	67630

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Chemical Name	CAS #	Chemical Name	CAS #
1-Methyl-3-ethylbenzene (m-Ethyltoluene)	620144	Isopropyl Alcohol, Anhydrous	67630
1-Methyl-4-isopropylcyclohexane (p-Menthane)	99821	2-Propanone	67641
1-Naphthyl-n-methylcarb-amate	63252	Acetone	67641
1-Nitropropane	108032	Acetone USP	67641
1-PENTANOL	71410	Dimethyl Ketone	67641
1-phenyl methanol	100516	Propanone	67641
1-Propanamine, 3-(Triethoxysilyl)-	919302	CHLOROFORM	67663
1-Propanol	71238	Dimethyl Sulfoxide	67685
12-Hydroxy Octadecanoic Acid	3159624	Thioglycolic Acid	68111
12-Hydroxy Octadecanoic Acid Methyl Ester	141131	Dimethyl Formamide	68122
12-Hydroxy Octadecanoic Acid Monolithium Salt	7620771	N, N-dimethylformamide	68122
12-HYDROXY-OCTADECANOIC ACID	3159624	Tetrapropyl Orthosilicate	68209
2 (3H)-Furanone, Dihydro	96480	1-Propanol	71238
2,2,4 TMO	3236531	n-Propanol	71238
2,2,4 Trimethylhexamethylenediamine	3236531	N-Propyl Alcohol	71238
2,2,4-TRIMETHYL -1,3-MONOISOBUTYRATE	25265774	Propyl Alcohol	71238
2,2,4-Trimethyl-1,3-pentanediol	144194	1-Butanol	71363
2,2,4-Trimethyl-1,3-pentanediol di-isobutyrate (Texanol iso-buty	6846500	Butanol	71363
2,2,4-Trimethyl-1,3-pentanediol-iso-butyrate	25265774	Buturol	71363
2,2-dichloro-1,1-difluoroethyl methyl ether	76380	Butyl Alcohol	71363
2,4 Dichlorophenoxy Acetic Acid	2008391	n-butanol	71363
2,4,4 trimethylhexamethylenediamine	3236542	n-Butyl Alcohol	71363
2,4-D Dimethylamine salt	2008391	Normal Butyl Alcohol	71363
2,4-dichlorophenoxy acetic acid	94757	1-PENTANOL	71410
2,4-DIISOCYANTO-1-METHYLBENZENE	584849	(1,1,1) Trichloroethane	71556
2,5-PYRROLIDINEDIONE	123568	1,1,1-Trichloroethane (Methyl chloroform)	71556
2,6-Dimethylnonane	17302282	Aerothene TT	71556
2-(2-Butoxyethoxy)-Ethanol	112345	Methyl chloroform (1,1,1-Trichloroethane)	71556
2-(2-Ethoxyethoxy) ethanol	111900	Methoxychlor	72435
2-(2-methyl-4-chlorophenoxy)-propionic acid	93652	Methane	74828
2-(Difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane	*****	Ethane	74840
2-(Difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane	*****	Ethylene	74851
2-(Ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane	*****	Propane	74986
2-(Ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane	*****	PROPELLANT A-108 - PROPANE	74986
2-(Methylethoxy)Phenol Methylcarbamate	114261	Dichloromethane (Methylene chloride)	75092
2-(Tert-butylamino)-4-Chloro-6-Ethylamino-s-triazi	5915413	Methylene Chloride	75092
2-Aminoethanol	141435	Methylene chloride (Dichloromethane)	75092
2-Bromo-2-chloro-1,1,1-trifluoroethane	151677	Difluoromethane (HFC-32)	75105
2-Butanol	78922	HFC-32 (Difluoromethane)	75105
2-Butanone	78933	Ethylene Oxide (Oxirane)	75218
2-BUTENEDIOIC ACID	110167	2-METHYL PROPANE	75285
2-Butoxyethanol	111762	Isobutane	75285
2-Butoxyethyl Acetate	112072	Isobutane (A-31)	75285
2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	2837890	ISOPROPYLAMINE	75310
2-CYANO-2-PROPENOIC ACID ETHYL ESTER	7085850	1,1-Difluoroethane (HFC-152a)	75376
2-Ethanolhexanol distillates	68609687	DIFLUOROETHANE	75376
2-Ethoxyethanol	110805	HFC-152a (1,1-Difluoroethane)	75376
2-ETHOXYETHYL ACETATE	111159	CFC-12 (Dichlorodifluoromethane)	75434
2-ETHYL OXY-BIS-HEXANOIC ACID	18268707	Dichlorodifluoromethane (CFC-12)	75434
2-Ethyl-3 Ethanoxypropionate	763699	CHLORODIFLUOROMETHANE	75456
2-Ethylhexyl Nitrate	27248967	Chlorodifluoromethane (HCFC-22)	75456
2-Heptanone	110430	FREON 22 SOLVENT	75456
2-Methoxy-1-Propanol	1589475	HCFC-22 (Chlorodifluoromethane)	75456
2-Methoxy-1-Propanol Acetate	70657704	HFC-23 (Trifluoromethane)	75467
2-METHOXYETHYLACETATE	110496	Trifluoromethane (HFC-23)	75467
2-Methoxymethylethoxy Propanol	34590948	NITROMETHANE	75525
2-Methyl decane	6975980	T-Butyl Alcohol	75650
2-Methyl heptane	592278	TERT-BUTYL ALCOHOL	75650
2-Methyl nonane	871830	1-Chloro-1,1-difluoroethane (HCFC-142b)	75683
2-METHYL PROPANE	75285	HCFC-142b (1-Chloro-1,1-difluoroethane)	75683
2-Methyl-1-Propanol	78831	CFC-11 (Trichlorofluoromethane)	75694
2-Methyl-2,4-Pentanediol	107415	Trichlorofluoromethane (CFC-11)	75694
2-METHYL-2-PROPENOIC ACID MONOESTER	27813021	Dichlorodifluoromethane	75718
2-methyl-4-isothiazoline-3-one	2682204	T-Amyl Alcohol	75854
2-METHYLHEXANE	591764	Chloropicrin (trichloronitromethane)	76062
2-MethylNaphthalene	91576	1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)	76131
2-methylpentane	107835	CFC-113 (1,1,2-Trichloro-1,2,2-trifluoroethane)	76131

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2-Nitropropane	79469	FREON TF	76131
2-Pentanone (Methyl propyl ketone)	107879	Trichlorotrifluoroethane (CFC-113)	76131
2-PHENYLHYDRAZIDE ACETIC ACID	114830	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC-114)	76142
2-Propanol	67630	CFC-114 (1,2-Dichloro-1,1,2,2,-tetrafluoroethane)	76142
2-propanol, 1-methoxy-	107982	CFC-115 (Chloropentafluoroethane)	76153
2-propanol, 1-[2-(2-methoxy-1-methylethoxy)-1-m...	20324338	Chloropentafluoroethane (CFC-115)	76153
2-Propanol-1-Butoxy	5131668	camphor	76222
2-Propanone	67641	2,2-dichloro-1,1-difluoroethyl methyl ether	76380
2-PROPENOIC ACID	79107	ATROSOL 504 (citrus acid?)	77929
2-Propoxyethanol	2807309	Tributoxy Ethyl Phosphate	78513
2251 Oil (or 2263 Oil @ 64742-47-8)	64742149	TRIBUTOXY ETHYL PHOSPHATE	78513
3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	422560	Tributoxyethyl Phosphate	78513
3,6-dichloro-o-anisic acid (Benzoic acid, 3,6 dichloro-2-methoxy)	1918009	Isophorone	78591
3-4 Dimethyl- 2,6 Dinitribenzenamine	40487421	2-Methyl-1-Propanol	78831
3-ETHYOXY PROPANOIC ACID ETHYL ESTER	763699	Isobutanol	78831
3-Methyl decane	13151343	Isobutyl Alcohol	78831
3-METHYLHEXANE	589344	2-Butanol	78922
3-METHYLMETHOXYBUTANOL	56539663	Butanol	78922
3-methylpentane	96140	BUTYL ALCOHOL	78922
4,6-Dichloro-2-Trichloromethylpyridine	1129197	Sec-butanol	78922
4-Hydroxy-4-Methyl-2-Pentanone	123422	sec-Butyl alcohol	78922
4-Isopropenyl 1-Methylcyclohexane	5989275	2-Butanone	78933
4-Methyl decane	2847725	MEK	78933
4-Methyl heptane	589537	Methyl Ethyl Ketone	78933
4-Methyl nonane	17301949	1-Amino-2-Propanol	78966
4-Methyl-2-Pentanol	108112	1,1,1-trichloroethane	79016
4-Methyl-2-Pentanone	108101	1,1,2-Trichloroethylene	79016
5 Bromo-3-Sec-Butyl Methyluracil	314409	Trichloroethylene	79016
5-chloro-2-methyl-4-isothiazoline-3-one	26172554	2-PROPENOIC ACID	79107
5-Methyl decane	13151354	ACRYLIC ACID	79107
9-Octadecenoic Acid (Z) Ammonium Salts	544605	Glycolic Acid	79141
99.5% Monochlorotoluene	95498	Hydroxyacetic Acid	79141
a,a,a-trifluoro-s,6-dinitro-n,n-dipropyl-p-toluide	1582098	PERACETIC ACID	79210
A-70 Hydrocarbon Propellant	68476857	NITROETHANE	79243
Acenaphthene	82329	Methacrylic Acid (2-methyl, 2-propenoic acid)	79414
Acetamide, N, N'-(ethenylmethyl-silylene)Bis-N-Me	50791872	2-Nitropropane	79469
Acetic Acid	64197	1-METHYL-1-PHENYLETHYL HYDROPEROXIDE	80159
Acetic Acid 100%	64197	Methyl methacrylate	80626
ACETIC ACID ETHYL ESTER	141786	Dexpanthenol	81130
ACETIC ACID GLACIAL	64197	Acenaphthene	82329
ACETIC ACID, BUTYL ESTER	123864	Dibutyl Phthalate	84742
Acetone	67641	Parachlorometoxylenol	88040
Acetone USP	67641	N-vinyl-2-pyrrolidone	88120
Acetophenone	98862	O-Nitrotoluene	88722
Acrolein	107028	Menthol	89781
ACRYLIC ACID	79107	ortho-phenylphenol	90437
Aerotherene TT	71556	Decahydronaphthalene	91178
Alcohol	64175	Decalin	91178
Alcohol Ethoxylate	68439509	Decalin (Decahydronaphthalene)	91178
ALCOHOL SDA	64175	Naphthalene	91203
ALIPHATIC DISTILLATE	64741737	2-MethylNaphthalene	91576
Aliphatic Hydrocarbon	64742963	Methyl Benzoate	93583
Aliphatic Hydrocarbon	64742977	2-(2-methyl-4-chlorophenoxy)-propionic acid	93652
Aliphatic Hydrocarbon	64771728	Dimethylamine Salt of MCPP	93652
ALIPHATIC HYDROCARBON	64741657	Benzocaine (Ethyl p-aminobenzoate)	94097
ALIPHATIC HYDROCARBON	64742899	SAFROLE #	94597
Aliphatic Hydrocarbon (Stoddard Type)	8052413	2,4-dichlorophenoxy acetic acid	94757
aliphatic petroleum distillate	64742967	Diethylamine salt of 2,4-dichlorophenoxyacetic acid	94757
Aliphatic Petroleum Distillate	64742887	Benzotriazole	95147
Aliphatic petroleum distillates	8008206	Xylene (o)	95476
Aliphatic petroleum distillates	64741657	99.5% Monochlorotoluene	95498
Aliphatic petroleum distillates	68334305	CHLOROTOLUENE	95498
Aliphatic Petroleum Hydrocarbon	64741442	O-CHLOROTOLUENE	95498
Alkali Surfactant	61790123	O- Dichlorobenzene	95501
Alkali Surfactant NM	64972196	ORTHO DICHLOROBENZENE	95501
Alkyl Acetate	90438792	1,2,4-Trimethylbenzene	95636
Alkyl Dimethyl Benzyl Ammonium Chloride	68391015	1,2,4-Trimethylbenzene (pseudo-Cumene)	95636

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Chemical Name	CAS #	Chemical Name	CAS #
Alkyl Dimethyl Ethyl Benzyl Ammonium Chloride	68956790	3-methylpentane	96140
Alkyl dimethylbenzylammonium chloride	68391015	DIHYDROXY ACETONE	96264
Alkyl Glycidyl Ether	68609972	2 (3H)-Furanone, Dihydro	96480
Alkyl Olefin Sulfonate	68439576	Butyrolactone	96480
Alkyl Olefin Sulfonate, Sodium Salt	68439576	gamma-Butyrolactone	96480
Alkylaryl Sulfonate	26264051	Eugenol	97530
Alkylaryl Sulfonate Isopropylamine Salt	26264051	Isobutyl Isobutyrate	97858
Alkylation Naphtha, heavy	64741657	Isobutyl methacrylate	97869
Alkylphenol Ethanol	9016459	TETRAHYDROFURFURYL ALCOHOL	97994
Alkylphenol Ethoxylate	9016459	Furfuryl Alcohol	98000
Alpha terpineol	98555	Alpha terpineol	98555
Amino Methyl Propanediol	115695	pine oil	98555
Aminomethyl Propanol	124685	TERPENE ALCOHOLS	98555
Ammonium Lactate (Propanoic acid, 2-hydroxy-monoammonium)	515980	1-Chloro-4-trifluoromethyl benzene (Parachlorobenzotrifluoride)	98566
Ammonium Lauryl Sulfate	2235543	Parachlorobenzotrifluoride (PCBTF)	98566
Ammonium Thioglycolate	5421465	PCBTF (Parachlorobenzotrifluoride)	98566
Amyl Acetate	628637	Acetophenone	98862
arcosolv pm	107982	Niacinamide (3-pyridine carboxamide)	98920
Armak 1194	61791262	1-Methyl-4-isopropylcyclohexane (p-Menthane)	99821
Aromatic 150	25551137	N,N-DIMETHYL-P-TOLUIDINE	99978
Aromatic 200 Solvent	68477316	DIETHYLAMINOETHANOL	100378
Aromatic Hydrocarbon Solvent	64741680	Ethyl Benzene	100414
AROMATIC HYDROCARBON SOLVENT	68477316	STYRENE (ethenyl benzene)	100425
Aromatic Petroleum Distillate	64741986	1-phenyl methanol	100516
AROMATIC PETROLEUM DISTILLATE	68477316	Benzoyl Alcohol	100516
Aromatic Petroleum Distillates	64742907	Benzyl Alcohol	100516
AROMATIC SOLVENT	13330207	RESIN A-BENZYL	100516
Asphalt	8052424	Benzaldehyde	100527
Atrazine - Tech	1912249	1,1-Methylene-bis-4-Isocyanobenzene)	101688
ATROSOL 504 (citrus acid?)	77929	Triethanolamine	102716
Bardac 208M Lonza	68424955	n-Propylbenzene	103651
Bardac MB-50]	139082	Propylbenzene	103651
Barrium Sulfinate	61790485	DIETHYLENE GLYCOL PHENYL ETHER	104687
Base Oil	8030309	CAPROLACTAM (2H-Azepin-2-one, hexahydro)	105602
Benefin	1861401	XYLENE (p)	106423
Benomyl	17804352	Xylol (p)	106423
Bensulide	741562	1,4-Dichlorobenzene	106467
Benzaldehyde	100527	p-dichlorobenzene	106467
Benzalkonium Chloride	8001545	Para-dichlorobenzene	106467
Benzocaine (Ethyl p-aminobenzoate)	94097	Dimethyl Succinate (Butanedioic acid, dimethyl ester)	106650
Benzotriazole	95147	1,2-Butylene Oxide (ethyl oxirane)	106887
Benzoyl Alcohol	100516	Butane	106978
Benzyl Acetate	140114	Hydrocarbon Propellant A-17	106978
Benzyl Alcohol	100516	N-BUTANE	106978
benzyl ammonium chloride	68424851	Acrolein	107028
Benzylkonium Chloride (w/ 20% ethanol)	68424851	Ethylene Dichloride	107062
Betaine	61789400	ETHYLENE DIAMINE	107153
Bismuth Octoate	67874719	1,2-Ethanediol	107211
Boiled Linseed Oil	8001261	Ethylene Glycol	107211
BTC-2125M 80% Stephan Company	68391015	2-Methyl-2,4-Pentanediol	107415
BTC-8249 Stephan Company	68391015	Hexylene Glycol	107415
BTC-8358 Stephan Company	8001545	Hexylene glycol (2-Methyl-2,4-pentane diol)	107415
Butane	106978	PROPYLENE GLYCOL METHYL ETHER	107556
Butane, branched and linear	68513655	2-methylpentane	107835
Butanediol diglycidyl ether	2425798	Isohexane	107835
Butanol	71363	2-Pentanone (Methyl propyl ketone)	107879
Butanol	78922	METHYL N-PROPYL KETONE	107879
Butoxyethanol	111762	Methyl propyl ketone (2-Pentanone)	107879
ButoxyPropanol	57018527	1,3-Butylene Glycol	107880
Buturol	71363	Butylene Glycol	107880
Butyl acetate	123864	1-Methoxy-2-propanol	107982
Butyl acetate	540885	2-propanol, 1-methoxy-	107982
Butyl Alcohol	71363	arcosolv pm	107982
BUTYL ALCOHOL	78922	Dowanol PM Glycol Ether	107982
Butyl Carbitol	112345	GLYCOL ETHER PM	107982
Butyl cellosolve	111762	Methoxypropanol	107982
Butyl Cellosolve Acetate	112072	PROPYLENE GLYCOL METHYL ETHER	107982

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Butyl Glycidyl Ether (Oxirane, butoxymethyl)	2426086	Propylene Glycol Monomethyl Ether	107982
Butylene Glycol	107880	Dimethylethanolamine	108010
Butyrolactone	96480	1-Nitropropane	108032
C-8/C-10 Alcohol	68603156	Vinyl acetate	108054
C10-15 Saturated Hydrocarbon	64742478	4-Methyl-2-Pentanone	108101
C10-C11 PARAFFINS CYCLO-PARAFFINS	64741657	Hexone	108101
C11-12 Isoparaffin	68551177	Methyl Isobutyl Ketone	108101
C11-13 ISOPARAFFIN	64742489	MIBK	108101
C11-13 Isoparaffin Solvent	68551177	4-Methyl-2-Pentanol	108112
C12 Alpha Olefin	25378227	Methyl amyl alcohol	108112
C12-C15 Ethoxylated Alcohol	68131395	Isopropyl Acetate	108214
C3-C4 Alkane Propellant	68475592	Xylene	108383
C3-C4 Propellant	68475592	M-cresol	108394
C4F9OC2H5 (1-Ethoxy-1,1,2,2,3,3,4,4,4-nonfluorobutane)	*****	Meta Cresol 36/38	108394
C4F9OCH3 (1,1,1,2,2,3,3,4,4-nonfluoro-4-methoxy-butane)	*****	1-Methoxy-2-Propanol Acetate	108656
c6-oxo Alcohol Acetate	88230357	1-Methoxy-2-Propyl acetate	108656
C9-11 ISOPARAFFIN	68551166	Dowanol PM Acetate	108656
C9-C12 Alkylbenzenes	68515253	Ethylene Glycol Monomethyl Ether Acetate	108656
C9-C12 Saturated Hydrocarbons	64741657	GLYCOL ETHER ACETATE	108656
camphor	76222	METHOXY PROPANOL ACETATE	108656
Camphor	21368683	PM Acetate	108656
CAMPHOR	464493	Propylene Glycol Monomethyl Ether Acetate	108656
Camphor Oil	8008513	Propylene Glycol Methyl Ether Acetate	108656
Camphor yellow	8008513	1,3,5-Trimethylbenzene (Mesitylene)	108678
CAPROLACTAM (2H-Azepin-2-one, hexahydro)	105602	Diisobutyl Ketone	108838
Captan	133062	Methylcyclohexane	108872
Captan, Technical	133062	METHYL BENZENE	108883
CARBAMIDE	57136	TOLUENE	108883
Carbaryl	63252	CHLOROBENZENE	108907
Carbaryl - Technical	63252	Monochlorobenzene	108907
Carbital DE	111900	Cyclohexanol	108930
Carbitol	111900	Cyclohexanone	108941
Carbitol Solvent	111900	Phenol	108952
Carbon Dioxide	124389	PHENOL (90%)	108952
Carbon tetrachloride	56235	Tetraethylene Glycol Dimethacrylate	109171
Carsamide CA	61789193	Dimethylamino Propylamine	109557
CASTOR OIL	8001794	n-Propyl acetate	109604
Cellosolve (EGEE)	110805	PROPYL ACETATE	109604
Cellosolve Acetate	111159	N-pentane	109660
Cellosolve Solvent	110805	Pentane	109660
CFC-11 (Trichlorofluoromethane)	75694	ETHYLENE GLYCOL METHYL ETHER	109864
CFC-113 (1,1,1,2-Trichloro-1,2,2-trifluoroethane)	76131	Ethylene Glycol Monomethyl Ether	109864
CFC-114 (1,1,2-Dichloro-1,1,2,2,-tetrafluoroethane)	76142	Methyl Cellosolve	109864
CFC-115 (Chloropentafluoroethane)	76153	METHYLAL, DIMETHOXYMETHANE	109875
CFC-12 (Dichlorodifluoromethane)	75434	Tetrahydrofuran	109999
CHLOROBENZENE	108907	Methyl Isoamyl Ketone	110123
CHLORODIFLUOROMETHANE	75456	2-BUTENEDIOIC ACID	110167
Chlorodifluoromethane (HCFC-22)	75456	ISOBUTYL ACETATE	110190
Chlorofluoromethane (HCFC-31)	593704	Isobutyl Acetone	110190
CHLOROFORM	67663	Ethylbenzene	110414
Chloropentafluoroethane (CFC-115)	76153	2-Heptanone	110430
Chloropicrin (trichloronitromethane)	76062	Methyl Amyl Ketone	110430
CHLOROTOLUENE	95498	Methyl n-amyl Ketone	110430
Chlorpyrifos	291882	2-METHOXYETHYLACETATE	110496
Chlorpyrifos	2921882	Methyl Cellosolve Acetate (EGMEA)	110496
Chlorpyrifos-methyl	5598130	HEXANE	110543
CIS 1,3-Dichloropropene	10061015	n-hexane	110543
cis-1,3-Dimethylcyclohexane	63840	Textile Spirits	110543
cis-Decalin	49316	Ethylene Glycol Dimethyl Ether	110714
Citrus Distillate	5989275	2-Ethoxyethanol	110805
Citrus Terpenes	5989275	Cellosolve (EGEE)	110805
Clopyralid Monoethanolamine salt	57754855	Cellosolve Solvent	110805
Clove Oil	8000348	Ethoxyethanol	110805
Cocamidopropyl Amino Betane	61789400	Ethylene Glycol Monoethyl Ether	110805
Coco Diethanolamide	67785131	GLYCOL ETHER EE	110805
Coco Diethanolamide-sulfonate	67785119	Cyclohexane	110827
Cocoamidopropyl Amine Oxide 35%	68155099	MORPHOLINE	110918

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Cocoamidopropyl Betaine	70851079	2-ETHOXYETHYL ACETATE	111159
Coconut Diethanolamine	68603429	Cellosolve Acetate	111159
Copper Naphthenate	1338029	Ethylene Glycol Monoethyl Ether Acetate	111159
Corvus Oil 00519-13	64742558	Glutaraldehyde (Pentanedial)	111308
Cottonseed Oil (Gossypium Hirsutum)	8001294	DETA	111400
Cresol	1319773	diethylene triamine	111400
CRESOL 174	1319773	Diethylenetriamine	111400
CRESOLS, MIXED	1319773	Diethanolamine	111422
Cresylic acid	1319773	DIETHYLENE GLYCOL	111466
Crude Citrus Limonene	5989275	N-OCTANE	111659
Cyclohexane	110827	Octane	111659
Cyclohexanol	108930	2-Butoxyethanol	111762
Cyclohexanone	108941	Butoxyethanol	111762
Cyclomethicone	69430246	Butyl cellosolve	111762
Cyclomethicone (DC 244)	69430246	EB	111762
Cyclomethicone (DC245/345)	69430246	Ethanol, 2-butoxy	111762
CYCLOMETHICONE TETRAMER	69430246	Ethylene Glycol Monobutyl ether	111762
Cythion Insecticide Concentrate	121755	Ethylene Glycol N-Butyl Ether	111762
D Limonene	5989275	GLYCOL ETHER DPM	111762
D'LIMONENE	7705148	GLYCOL ETHER EB	111762
d-Limonene	68647723	N-BUTYL ETHER OF ETHYLENE GLYCOL	111762
D-Limonene	68917577	Poly Solv EB	111762
D-LIMONENE	58917577	DEG Methyl Ether	111773
D-Tert Butyl Phenyl Glycidyl Ether	3101608	diethylene glycol methyl ether	111773
Damar gum	9000162	Diethylene Glycol Monomethyl Ether	111773
DDVP	620737	Glycol Ether DM	111773
DE	111900	METHYL CARBITOL	111773
Decahydronaphthalene	91178	Polysolve DM	111773
Decalin	91178	Nonane	111842
Decalin (Decahydronaphthalene)	91178	Octanol	111875
decamethylcyclopentasiloxane	541026	2-(2-Ethoxyethoxy) ethanol	111900
DEET	134623	Carbitol DE	111900
DEET (Di Ethyl Toluamide)	134623	Carbitol	111900
DEG Methyl Ether	111773	Carbitol Solvent	111900
Denatured Ethyl Alcohol	64175	DE	111900
denatured ethyl alcohol (w/ camphor)	64175	diethylene glycol ethyl ether	111900
Deodorized Kerosene	8008206	Diethylene Glycol Monoethyl Ether	111900
Deodorized Kerosene	64742967	Ethoxydiglycol	111900
DETA	111400	Glycol Ether De-Low Grav.	111900
Dexpanthenol	81130	Glycol Ether DR-Lo Grav.	111900
Di (2- Ethylhexyl Phthalate)	117817	Poly Solv DE	111900
Diacetone alcohol	123422	Diethylene Glycol Dimethyl Ether	111966
Dialkyl methyl benzylammonium chloride	73049759	Diethylene Glycol Butyl Ethers	111981
Diazinon	333415	DIETHYLENE GLYCOL BUTYL ETHERS	111981
Diazinon MG-8	333415	2-Butoxyethyl Acetate	112072
Diazinon MG-8 Insecticide Concentrate	333415	Butyl Cellosolve Acetate	112072
Dibutyl Phthalate	84742	ETHYLENE GLYCOL BUTYL ETHER ACETATE	112072
Dicetyl Diammonium	1812539	Methyl Nonyl Ketone	112129
Dichlorodifluoromethane	75718	Triethylene Glycol	112276
Dichlorodifluoromethane (CFC-12)	75434	TRIETHYLENE GLYCOL	112276
Dichloromethane (Methylene chloride)	75092	2-(2-Butoxyethoxy)-Ethanol	112345
Dichlorvos	62737	Butyl Carbitol	112345
Diecyl Dimethyl Ammonium Chloride	7173515	Diethylene glycol butyl ether	112345
Diesel Fuel	68476346	Diethylene Glycol Monobutyl Ether	112345
Diesel Fuel #2	64742442	Diethylene Glycol N-Butyl Ether	112345
Diethanolamine	111422	Glycol Ether (Butyl Carbitol)	112345
Diethyl Ether	60297	GLYCOL ETHER (BUTYL CARBITOL)	112345
Diethylamine Salt of 2,4-dichlorophenoxy acetic acid	2008391	Glycol Ether DB	112345
Diethylamine salt of 2,4-dichlorophenoxyacetic acid	94757	Poly Solv DB	112345
DIETHYLAMINOETHANOL	100378	DIETHYLENE GLYCOL DIETHYL ETHER	112367
Diethylene Glycol	114666	Undecenoic Acid	112389
DIETHYLENE GLYCOL	111466	Dodecane	112403
Diethylene glycol butyl ether	112345	Triethylene Glycol Dimethyl Ether	112492
Diethylene Glycol Butyl Ethers	111981	Tetraethylene Pentamine	112572
DIETHYLENE GLYCOL BUTYL ETHERS	111981	Tetraethylene Glycol	112607
DIETHYLENE GLYCOL DIETHYL ETHER	112367	Oleic Acid (9-octadecenoic acid)	112801
Diethylene Glycol Dimethyl Ether	111966	1 - Octadecanol	112925

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Chemical Name	CAS #	Chemical Name	CAS #
diethylene glycol ethyl ether	111900	2-(Methylethoxy)Phenol Methylcarbamate	114261
diethylene glycol methyl ether	111773	Diethylene Glycol	114666
DIETHYLENE GLYCOL METHYL ETHERS	89399280	2-PHENYLHYDRAZIDE ACETIC ACID	114830
Diethylene Glycol Monobutyl Ether	112345	Dimethyl Ether	115106
Diethylene Glycol Monoethyl Ether	111900	DME	115106
Diethylene Glycol Monomethyl Ether	111773	Dymel A	115106
Diethylene Glycol N-Butyl Ether	112345	METHYL ETHER	115106
DIETHYLENE GLYCOL PHENYL ETHER	104687	Thiodan - Technical	115297
diethylene triamine	111400	Amino Methyl Propanediol	115695
Diethylenetriamine	111400	Triphenol Phosphate	115866
DIFLUOROETHANE	75376	Di (2- Ethylhexyl Phthalate)	117817
Difluoromethane (HFC-32)	75105	Diocetyl Phthalate	117840
Diglycolamine	929066	METHYL SALICYLATE	119368
DIHYDROXY ACETONE	96264	o-benzyl-p-chlorophenol	120321
Diisobutyl Ketone	108838	M-Pyrol (methyl pyrrolidine)	120945
Diisopropyl Adipate (hexanedioic acid, bis (1-methylhexyl))	6938949	N-Methylpyrrolidone	120945
Dimethicone Copolyol	64365237	Pyrocide Intermediate 5192 (Pyrethrin)	121211
Dimethoate	60515	Triethylamine	121448
Dimethoate - Technical	60515	Cythion Insecticide Concentrate	121755
Dimethoate Insecticide Concentrate	60515	Malathion	121755
Dimethyl Adipate (hexanedioic acid, methyl ester)	627930	Malathion TE	121755
Dimethyl Benzene	1330207	Malathion - Technical	121755
Dimethyl Carbinol	67630	Stearalkonium chloride	122190
Dimethyl Ether	115106	TRIETHYL PHOSPHITE	122521
Dimethyl Formamide	68122	Diocetyl sebacate (Decanedioic acid, bis 2-ethyl hexyl ester)	122623
Dimethyl Glutarate (Pentanedioic acid, dimethyl ester)	1119400	ETHYLENE GLYCOL PHENYL ETHER	122996
Dimethyl Ketone	67641	Ethylene Glycol, Monophenyl Ether	122996
DIMETHYL PHENOL PHOSPHATE	25155231	Glycol Ether EPH	122996
DIMETHYL SILOXANE	63148629	Phenoxyethanol	122996
Dimethyl Succinate (Butanedioic acid, dimethyl ester)	106650	Phenylglycol ether	122996
Dimethyl Sulfoxide	67685	1,4-BENZENEDIOL	123319
Dimethylamine	124403	Hydroquinone	123319
Dimethylamine Salt of Dicamba	1918009	4-Hydroxy-4-Methyl-2-Pentanone	123422
Dimethylamine Salt of MCPP	93652	Diacetone alcohol	123422
Dimethylamino Propylamine	109557	2,5-PYRROLIDINEDIONE	123568
Dimethylethanolamine	108010	ACETIC ACID, BUTYL ESTER	123864
Diocetyl Phthalate	117840	Butyl acetate	123864
Diocetyl sebacate (Decanedioic acid, bis 2-ethyl hexyl ester)	122623	n-Butyl Acetate	123864
DIPENTENE (P-MENTHA-1,8-DIENE ?)	138863	1,4-dioxane	123911
Dipropylene glycol	25265718	1-(2-butoxyethoxy)-2-propanol	124163
Dipropylene glycol	25265718	Carbon Dioxide	124389
dipropylene glycol ethyl ether	3459948	Dimethylamine	124403
dipropylene glycol methyl ether	3459948	Aminomethyl Propanol	124685
DIPROPYLENE GLYCOL METHYL ETHER	12002254	Isobornyl Acetate (Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimethyl,-ac	125122
Dipropylene glycol monomethyl ether	13459948	Isobornyl Acetate	125123
Dipropylene Glycol Methyl Ether	34590948	Tris (hydroxymethyl) nitromethane	126114
Dipropylene Triamine	56188	Neopentyl glycol (2,2-Dimethyl-1,3-Propanediol)	126307
Disodium Cocamide Mipa Sulfosuccinate	68515651	1,1,2,2-Tetrachloroethylene	127184
Disodium ethylene bisdithiocarbamate	142596	Perchloroethylene	127184
Disodium Laureth Sulfosuccinate	39354455	Tetrachloroethylene	127184
Distillates (Petroleum), Solvent-Rf Lt.Nap	64741895	Potassium dimethyldithiocarbamate	128030
DME	115106	Sodium Dimethyldithiocarbamate	128041
Dodecane	112403	Captan	133062
Dodecylbenzenesulfonate	25155300	Captan, Technical	133062
Dodecyl Benzene Sulfonic Acid	27176870	DEET	134623
Dodecylbenzene Sulfonate	27176870	DEET (Di Ethyl Toluamide)	134623
Dow Corning 344	69430246	N,N-Diethyl-M-Toluamide	134623
DOWANOL DPM	34590948	METHYL CYANOACRYLATE	137053
Dowanol PM Acetate	108656	HAMPOSYL L-30	137166
Dowanol PM Glycol Ether	107982	Hydrocarbon Detergent	137166
Dursban	2921882	Tetramethylthiuran Disulfide	137268
Dursban (Chlorpyrifos)	2921882	Thiram - Technical	137268
Dursban H.F. Insecticide Concentrate	2921882	DIPENTENE (P-MENTHA-1,8-DIENE ?)	138863
Dursban HF	2921882	Bardac MB-50]	139082
Dymel A	115106	TEA-Laurel Sulfate	139968
EB	111762	Benzyl Acetate	140114
EEP Solvent	763699	12-Hydroxy Octadecanoic Acid Methyl Ester	141131

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Chemical Name	CAS #	Chemical Name	CAS #
EKTASOLVE	2807309	2-Aminoethanol	141435
Ektasolve EP	2807309	Ethanolamine	141435
Emcol 14	71012107	ACETIC ACID ETHYL ESTER	141786
Epoxidized Soybean Oil	8013078	Ethyl Acetate	141786
Epoxy Resin	28064144	MESITYL OXIDE (3-penten-2-one, 4-methyl?)	141797
Ethalfuralin	55283686	Disodium ethylene bisdithiocarbamate	142596
Ethane	74840	Ethylene (bis) dithiocarbamate, disodium salt	142596
Ethanol	8024451	NABAM (Disodium Ethylene Bis Dithiocar-	142596
ETHANOL	64175	Heptane	142825
Ethanol (39C SDA)	8024451	n-Heptane	142825
ETHANOL (METHANOL DENATURED)	8013523	Sodium Oleate	143191
Ethanol SDA 39C	8024451	TRIETHYLENE GLYCOL MONOBUTYL ETHER	143226
Ethanol, 2-butoxy	111762	Oleyl Alcohol	143282
Ethanolamine	141435	2,2,4-Trimethyl-1,3-pentanediol	144194
Ethanolamine Sulfite	15535292	Sodium Laureth Sulfate	151213
Ethoxy Sulfate, Neodol 25-3S	68586342	Sodium Lauryl Sulfate	151213
Ethoxydiglycol	111900	Wilcolate A	151213
Ethoxyethanol	110805	2-Bromo-2-chloro-1,1,1-trifluoroethane	151677
Ethoxylated Alcohol C12-15	68131395	Halothane	151677
Ethoxylated Alcohol C12-16	68551122	TRIETHYLENEDIAMINE	280579
Ethoxylated Alcohol C12-16	68551122	Chlorpyrifos	291882
Ethyl 3-Ethoxypropionate	763699	1,1,1-Trifluoro-2,2-dichloroethane (HCFC-123)	306832
ETHYL 3ETHOXYPROPIONATE	7636699	HCFC-123 (1,1,1-Trifluoro-2,2-dichloroethane)	306832
Ethyl Acetate	141786	5-Bromo-3-Sec-Butyl Methyluracil	314409
Ethyl Alcohol	64175	Diazinon	333415
Ethyl Alcohol	97702170	Diazinon MG-8	333415
Ethyl Alcohol SDA	64175	Diazinon MG-8 Insecticide Concentrate	333415
Ethyl Benzene	100414	O, O-dimethyl-O-phosphorothiate	333476
Ethyl Ester of PVM/MA Copolymer (w/ethanol)	25087063	Ethylfluoride (HFC-161)	353366
Ethyl Ether	60297	HFC-161 (Ethylfluoride)	353366
Ethyl-2-cyanoacrylate	7085850	1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)	354234
Ethylbenzene	110414	HCFC-123a (1,2-Dichloro-1,1,2-trifluoroethane)	354234
Ethylcyanoacrylate	7085850	HFC-125 (Pentafluoroethane)	354336
Ethylene	74851	Pentafluoroethane (HFC-125)	354336
Ethylene (bis) dithiocarbamate, disodium salt	142596	1,1,2,2-Tetrafluoroethane (HFC-134)	359353
ETHYLENE DIAMINE	107153	HFC-134 (1,1,2,2-Tetrafluoroethane)	359353
Ethylene Diamine Tetra Acetate	60004	1,1,1,3,3-Pentafluorobutane (HFC-365mfc)	406586
ETHYLENE DIAMINE TETRA ACETATE	60004	HFC-365mfc (1,1,1,3,3-Pentafluorobutane)	406586
Ethylene Dichloride	107062	1,1,1-Trifluoroethane (HFC-143a)	420462
Ethylene Glycol	107211	HFC-143a (1,1,1-Trifluoroethane)	420462
ETHYLENE GLYCOL BUTYL ETHER ACETATE	112072	3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	422560
Ethylene Glycol Diethyl Ether	629141	HCFC-225ca (3,3-Dichloro-1,1,1,2,2-pentafluoropropane)	422560
Ethylene Glycol Dimethyl Ether	110714	1,1,1,2,3-Pentafluoropropane (HFC-245eb)	431312
ETHYLENE GLYCOL METHYL ETHER	109864	HFC-245eb (1,1,1,2,3-Pentafluoropropane)	431312
Ethylene Glycol Monobutyl ether	111762	1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)	431630
Ethylene Glycol Monoethyl Ether	1110805	HFC-236ea (1,1,1,2,3,3-Hexafluoropropane)	431630
Ethylene Glycol Monoethyl Ether Acetate	111159	1,1,1,3,3-Pentafluoropropane (HFC-245fa)	460731
Ethylene Glycol Monomethyl Ether	109864	HFC-245fa (1,1,1,3,3-Pentafluoropropane)	460731
Ethylene Glycol Monomethyl Ether Acetate	108656	CAMPHOR	464493
Ethylene Glycol Monopropyl Ether	2807309	Indan	496117
Ethylene Glycol N-Butyl Ether	111762	1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	507551
ETHYLENE GLYCOL PHENYL ETHER	122996	HCFC-225cb (1,3-Dichloro-1,1,2,2,3-pentafluoropropane)	507551
Ethylene Glycol, Monophenyl Ether	122996	Methylene Bis (4-Cyclohexylisocyanate)	512431
Ethylene Glycol-n-propyl Ether	2807309	Ammonium Lactate (Propanoic acid, 2-hydroxy-monoammonium)	515980
Ethylene Oxide (Oxirane)	75218	1,2,3-Trimethylbenzene	526738
Ethylene/vinyl acetate polymer	24937788	tetrahydro-3,5-dimethyl-1,2,4,5-thiadiazine-2-e	533744
Ethylfluoride (HFC-161)	353366	Butyl acetate	540885
Ethyltoluenes	25550145	decamethylcyclopentasiloxane	541026
Eucalyptus	8000484	9-Octadecenoic Acid (Z) Ammonium Salts	544605
Eugenol	97530	Methyl isopropyl ketone	563804
Fatty Diethanolamide	68604353	2,4-DIISOCYANTO-1-METHYLBENZENE	584849
Ferbam	14484641	3-METHYLHEXANE	589344
FORMALDEHYDE	50000	4-Methyl heptane	589537
Formalin Formaldehyde	50000	N-Butyl Propionate	590012
Formic acid	64186	2-METHYLHEXANE	591764
FORMIC ACID (90%)	64186	2-Methyl heptane	592278
FREON 22 SOLVENT	75456	Chlorofluoromethane (HCFC-31)	593704

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Chemical Name	CAS #	Chemical Name	CAS #
FREON TF	76131	HCFC-31 (Chlorofluoromethane)	593704
fuel oil no. 2	68476302	1-Ethyl-2-methylbenzene (o-Ethyltoluene)	611143
Furfuryl Alcohol	98000	1-Ethyl-3-methylbenzene (m-Ethyltoluene)	620144
Gamma-Aminopropyltriethoxysilane	919302	1-Methyl-3-ethylbenzene (m-Ethyltoluene)	620144
Gamma-Aminopropyl Triethoxysilane	11919302	DDVP	620737
gamma-Butyrolactone	96480	1-Ethyl-4-methylbenzene (p-Ethyltoluene)	622968
Gantrez ES225	25087063	Dimethyl Adipate (hexanedioic acid, methyl ester)	627930
Glutaraldehyde (Pentanedial)	111308	Amyl Acetate	628637
Glycereth-7	31694550	N-amyl acetate	628637
Glycereth-7	31694550	Primary Amyl Acetate	628637
Glycerin	56815	Ethylene Glycol Diethyl Ether	629141
Glyceryl Thioglycolate	30618849	Glycol Methylene Ether (1,3-Dioxolane?)	646060
Glycol Ether (Butyl Carbitol)	112345	1,1,2,2,3-Pentafluoropropane (HFC-245ca)	679867
GLYCOL ETHER (BUTYL CARBITOL)	112345	HFC-245ca (1,1,2,2,3-Pentafluoropropane)	679867
GLYCOL ETHER ACETATE	108656	Silicic Acid (HASIO4), Tetrapropyl	682019
Glycol Ether DB	112345	Tetrapropyl Orthosilicate	682019
Glycol Ether De-Low Grav.	111900	1,1,1,3,3,3-Hexafluoropropane (HFC-236fa)	690391
Glycol Ether DM	111773	HFC-236fa (1,1,1,3,3,3-Hexafluoropropane)	690391
Glycol Ether DPM	34590948	Isopropylcyclohexane	696297
GLYCOL ETHER DPM	111762	Bensulide	741562
Glycol Ether DR-Lo Grav.	111900	S-O,O-Diisopropyl phosphorodithioate	741582
GLYCOL ETHER EB	111762	2-Ethyl-3 Ethanoxypropionate	763699
GLYCOL ETHER EE	110805	3-ETHYOXY PROPANOIC ACID ETHYL ESTER	763699
Glycol Ether EP	2807309	EEP Solvent	763699
Glycol Ether EPH	122996	Ethyl 3-Ethoxypropionate	763699
GLYCOL ETHER PM	107982	Propanoic Acid, 3-Ethoxy-Ethyl Ester	763699
Glycol Methylene Ether (1,3-Dioxolane?)	646060	1,1,1,2-Tetrafluoroethane (HFC-134a)	811972
Glycolic Acid	79141	HFC-134a (1,1,1,2-Tetrafluoroethane)	811972
Gum Turpentine	8006642	1,6-DIISOCYANTO-HEXANE	822061
GUM TURPENTINE	9005907	Pentachloronitrobenzene	826886
Halothane	151677	HYDROXYETHYL METHACRYLATE	868779
Halso AG125 Monochlorotoluene	25168052	2-Methyl nonane	871830
HAMPOSYL L-30	137166	1-METHYL-2-PYRROLIDONE	872504
Han Solvent	64742069	m-pyrol	872504
HAN-857	64742069	N-Methyl -2- Pyrrolidone	872504
HCFC-123 (1,1,1-Trifluoro-2,2-dichloroethane)	306832	N-Methylpyrrolidone	872504
HCFC-123a (1,2-Dichloro-1,1,2-trifluoroethane)	354234	1-Propanamine, 3-(Triethoxysilyl)-	919302
HCFC-124 (2-Chloro-1,1,1,2-tetrafluoroethane)	2837890	Gamma-Aminopropyltriethoxysilane	919302
HCFC-141b (1,1-Dichloro-1-fluoroethane)	25167888	Diglycolamine	929066
HCFC-142b (1-Chloro-1,1-difluoroethane)	75683	1,3-Dimethyl-5-ethylbenzene	934747
HCFC-151a (1-Chloro-1-fluoroethane)	1615754	N-Phosphonomethylglycine	1071836
HCFC-22 (Chlorodifluoromethane)	75456	Dimethyl Glutarate (Pentanedioic acid, dimethyl ester)	1119400
HCFC-225ca (3,3-Dichloro-1,1,1,2,2-pentafluoropropane)	422560	Undecane	1120214
HCFC-225cb (1,3-Dichloro-1,1,2,2,3-pentafluoropropane)	507551	4,6-Dichloro-2-Trichloromethylpyridine	1129197
HCFC-31 (Chlorofluoromethane)	593704	Slane, Trimethoxymethyl-	1185553
Heavy Alkylate Naphtha	64741657	Xylenols - mixed	1300716
Heavy Alkylate Naphtha	64742657	Sodium Xylene Sulfonate	1300727
Heavy Aromatic Naphtha Solvent	64742945	Cresol	1319773
Heptane	142825	CRESOL 174	1319773
HEXAMETHYLENEDIAMINE	6898775	CRESOLS, MIXED	1319773
HEXANE	110543	Cresylic acid	1319773
Hexone	108101	Dimethyl Benzene	1330207
Hexylene Glycol	107415	Xylene	1330207
Hexylene glycol (2-Methyl-2,4-pentane diol)	107415	Xylene (Mixture)	1330207
HFC 43-10mee (1,1,1,2,3,4,4,5,5,5-Decafluoropentane)	*****	Xylene in technical - Methyl Parathion	1330207
HFC-125 (Pentafluoroethane)	354336	Xylene Mixed O, M, & P Isomers	1330207
HFC-134 (1,1,2,2-Tetrafluoroethane)	359353	Sodium Lauryl Sulfate Ether	1335724
HFC-134a (1,1,1,2-Tetrafluoroethane)	811972	Copper Naphthenate	1338029
HFC-143a (1,1,1-Trifluoroethane)	420462	Lead Chromate (C.I. pigment yellow 34)	1344372
HFC-152a (1,1-Difluoroethane)	75376	n-Propoxypropanol	1569013
HFC-161 (Ethyl fluoride)	353366	a,a,a-trifluoro-s,6-dinitro-n,n-dipropyl-p-toluide	1582098
HFC-23 (Trifluoromethane)	75467	Trifluralin	1582098
HFC-236ea (1,1,1,2,3,3-Hexafluoropropane)	431630	2-Methoxy-1-Propanol	1589475
HFC-236fa (1,1,1,3,3,3-Hexafluoropropane)	690391	Prometon	1610180
HFC-245ca (1,1,2,2,3-Pentafluoropropane)	679867	Prometon - Technical	1610180
HFC-245ea (1,1,2,3,3-Pentafluoropropane)	24270664	1-Chloro-1-fluoroethane (HCFC-151a)	1615754
HFC-245eb (1,1,1,2,3-Pentafluoropropane)	431312	HCFC-151a (1-Chloro-1-fluoroethane)	1615754

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Chemical Name	CAS #	Chemical Name	CAS #
HFC-245fa (1,1,1,3,3-Pentafluoropropane)	460731	Methyl Tertiary Butyl Ether	1634044
HFC-32 (Difluoromethane)	75105	Propylcyclohexane	1678928
HFC-365mfc (1,1,1,3,3-Pentafluorobutane)	406586	Isobutylcyclohexane	1678984
High Flash Naptha	68476799	Dicetyl Diammonium	1812539
Hydrocarbon Detergent	137166	Benefin	1861401
HYDROCARBON PROPELLANT	68476868	Atrazine - Tech	1912249
Hydrocarbon Propellant A-17	106978	3,6-dichloro-o-anisic acid (Benzoic acid, 3,6 dichloro-2-methoxy)	1918009
Hydrocarbon resin	68003510	Dimethylamine Salt of Dicamba	1918009
HYDROCARBONS	64741737	Nitrapyrin (Pyridine, 2-chloro-6-trichloro methyl?)	1929824
Hydroquinone	123319	2,4 Dichlorophenoxy Acetic Acid	2008391
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	64742489	2,4-D Dimethylamine salt	2008391
hydrotreated light distillate	64742149	Diethylamine Salt of 2,4-dichlorophenoxy acetic acid	2008391
Hydrotreated Light Distillate	64742478	Phenyl Trimethicone	2116849
HYDROTREATED LIGHT DISTILLATE	64742478	Monosodium Acid Methanearsonate	2163806
Hydrotreated middle distillate	64742467	MSMA	2163806
hydroxy alkylmethacrylate	27813021	Sodium Alkyl Benzene Sulfonate	2211985
Hydroxyacetic Acid	79141	1,2,4-Trimethylcyclohexane	2234755
HYDROXYETHYL METHACRYLATE	868779	Ammonium Lauryl Sulfate	2235543
Imazaquin	81335479	1,4 Diglycidylxybutane	2425798
Indan	496117	Butanediol diglycidyl ether	2425798
Intrasol FA 12/18/5	22047490	Butyl Glycidyl Ether (Oxirane, butoxymethyl)	2426086
Iodine	7553562	tetrohydrofuran	2455245
IPA	67630	Picloram, Potassium salt	2545600
Isobornyl Acetate	125123	OCTYL DIMETHYL AMINE OXIDE	2605789
Isobornyl Acetate (Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimethyl,-acetate)	125122	2-methyl-4-isothiazoline-3-one	2682204
Isobutane	75285	2-Propoxyethanol	2807309
Isobutane (A-31)	75285	EKTASOLVE	2807309
ISOBUTANE/ PROPANE	68476857	Ektasolve EP	2807309
isobutane/propane	68475592	Ethylene Glycol Monopropyl Ether	2807309
Isobutane/Propane	68476868	Ethylene Glycol-n-propyl Ether	2807309
Isobutanol	78831	Glycol Ether EP	2807309
ISOBUTYL ACETATE	110190	Propylene Glycol EP Solvent	2807309
Isobutyl Acetone	110190	PROPOXYETHANOL	2807309
Isobutyl Alcohol	78831	2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	2837890
Isobutyl Isobutyrate	97858	HCFC-124 (2-Chloro-1,1,1,2-tetrafluoroethane)	2837890
Isobutyl methacrylate	97869	4-Methyl decane	2847725
Isobutylcyclohexane	1678984	Isophorone Diamine	2855132
Isohexadecane	15220856	Chlorpyrifos	2921882
Isohexane	107835	Dursban	2921882
Isohexane	73513425	Dursban (Chlorpyrifos)	2921882
Isomeric Hydrocarbons	68551188	Dursban H.F. Insecticide Concentrate	2921882
Isopar C	64742489	Dursban HF	2921882
Isopar E	64742489	D-Tert Butyl Phenyl Glycidyl Ether	3101608
Isopar G	64742489	12-Hydroxy Octadecanoic Acid	3159624
Isopar H	64742489	12-HYDROXY-OCTADECANOIC ACID	3159624
Isopar K	64742489	2,2,4 TMO	3236531
Isopar L	64742489	2,2,4 Trimethylhexamethylenediamine	3236531
Isopar M	64742478	2,4,4 trimethylhexamethylenediamine	3236542
ISOPARAFFIN HYDROCARBON	64741657	dipropylene glycol ethyl ether	3459948
ISOPARAFFINIC PETROLEUM	68551199	dipropylene glycol methyl ether	3459948
ISOPARAFFINIC SOLVENT	64742489	Piperalin	3478942
ISOPARRIFINIC PETROLEUM SOLVENT	8001603	Isophorone diisocyanate	4098719
Isophorone	78591	1-Methyl-2-propylcyclohexane	4291796
Isophorone Diamine	2855132	PENTAETHYLENE GLYCOL	4792158
Isophorone diisocyanate	4098719	Methylene bis(4-cyclohexylisocyanate)	5124301
Isopropanol	67630	1-Butoxy-2-propanol	5131668
Isopropyl Acetate	108214	2-Propanol-1-Butoxy	5131668
Isopropyl Alcohol	67630	n- Butoxypropanol	5131668
Isopropyl Alcohol	26080191	PROPYLENE GLYCOL MONOBUTYL ETHER	5131668
Isopropyl Alcohol, Anhydrous	67630	Ammonium Thioglycolate	5421465
Isopropyl Isosterate	68171335	Thioglycolate, Ammonium Salt	5421465
ISOPROPYLAMINE	75310	Tetrabutyl Titanate	5593704
Isopropylcyclohexane	696297	Chlorpyrifos-methyl	5598130
Kaydol Mineral Oil	8012951	2-(Tert-butylamino)-4-Chloro-6-Ethylamino-s-triazine	5915413
KD COCO AMIDE	61791319	4-Isopropenyl 1-Methylcyclohexane	5989275
kerosene	80082061	Citrus Distillate	5989275
Kerosene	9002059	Citrus Terpenes	5989275

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Chemical Name	CAS #	Chemical Name	CAS #
Kerosene	64742810	Crude Citrus Limonene	5989275
KEROSENE	64642478	D Limonene	5989275
Klearol Mineral Oil	8012951	Orange Terpenes	5989275
L.P. Gas Propellant	68476868	Methylene bis (thiocyanate)	6317186
Lactic Acid	50215	2,2,4-Trimethyl-1,3-pentanediol di-isobutyrate (Texanol iso-buty	6846500
Lactic AcidEDTA	50215	Texanol iso-butyrate	6846500
Lactol Spirits	64741555	HEXAMETHYLENEDIAMINE	6898775
Lead Chromate (C.I. pigment yellow 34)	1344372	Malic Acid (Butanedioic acid, hydroxy?)	6915157
Lemon Oil	68916892	Diisopropyl Adipate (hexanedioic acid, bis (1-methylhexyl))	6938949
LIGHT ALIPHATIC NAPHTHA SOLVENT	64742898	2-Methyl decane	6975980
LIGHT AROMATIC NAPHTHA SOLVENT	64742956	2-CYANO-2-PROPENOIC ACID ETHYL ESTER	7085850
Light Distillate	64742149	Ethyl-2-cyanoacrylate	7085850
Light naphtha	64742840	Ethylcyanoacrylate	7085850
Light Naphtha	64742149	Diethyl Dimethyl Ammonium Chloride	7173515
light petroleum distillate	64742749	Iodine	7553562
LIGROINE	8032324	12-Hydroxy Octadecanoic Acid Monolithium Salt	7620771
Lindane (hexachlorocyclohexane)	58899	Sodium Molybdate	7631950
LINEAR ALCOHOL ETHOXYLATE	69013189	ETHYL 3ETHOXYPROPIONATE	7636699
LINSEED OIL	68001261	D'LIMONENE	7705148
Liquid Petroleum Propellant	68476889	PETROLEUM	8000209
Liquified Petroleum Gas	68476857	Oil Lavender	8000280
LPA Petroleum Distillate	68551188	Clove Oil	8000348
Lubricating Oil	64642525	Terpineol	8000417
M-cresol	108394	Terpinol	8000417
m-pyrol	872504	Eucalyptus	8000484
M-Pyrol (methyl pyrrolidine)	120945	Boiled Linseed Oil	8001261
Malathion	121755	Cottonseed Oil (Gossypium Hirsutum)	8001294
Malathion TE	121755	Benzalkonium Chloride	8001545
Malathion - Technical	121755	BTC-8358 Stephan Company	8001545
Malic Acid (Butanedioic acid, hydroxy?)	6915157	N-Alkyl Dimethyl Benzyl Ammonium Chloride	8001545
Manalox Resin	13419153	Quaternary Ammonium Chloride	8001545
Medium Aliphatic Solvent Naphtha	64742887	ISOPARRIFINIC PETROLEUM SOLVENT	8001603
MEK	78933	CASTOR OIL	8001794
Menthol	89781	Pale Oil	8002059
Menthol	15356704	Petroleum Distillate, Naphtha	8002059
MESITYL OXIDE (3-penten-2-one, 4-methyl?)	141797	Pine Oil	8002093
Meta Cresol 36/38	108394	Terpene Hydrocarbons	8002093
Methacrylic Acid	31346573	Tall Oil	8002264
Methacrylic Acid (2-methyl, 2-propenoic acid)	79414	Paraffin Wax	8002742
Methane	74828	Pyrenone CSE-10	8003347
Methanoic acid	64186	Pyrethrins	8003347
Methanol	49120	Pyrethrum (PD-5 Residual)	8003347
Methanol	67561	Gum Turpentine	8006642
Methanol Alcohol	67561	Steam Distilled Wood Turpentine	8006642
METHOXY PROPANOL ACETATE	108656	Turpentine	8006642
Methoxychlor	72435	Aliphatic petroleum distillates	8008206
Methoxymethyl Ethoxypropanol	34590948	Deodorized Kerosene	8008206
Methoxypropanol	107982	Camphor Oil	8008513
Methyl Alcohol	67561	Camphor yellow	8008513
Methyl amyl alcohol	108112	Oil Camphor	8008513
Methyl Amyl Ketone	110430	Orange Oil	8008579
METHYL BENZENE	108883	Spruce oil	8008808
Methyl Benzoate	93583	Petrolatum	8009038
Methyl Bis Hydroxyethyl Ammonium Methylsulfate	68410695	Oil of Pine Tar	8011481
METHYL CARBITOL	111773	Kaydol Mineral Oil	8012951
Methyl Cellosolve	109864	Klearol Mineral Oil	8012951
Methyl Cellosolve Acetate (EGMEA)	110496	Paraffin Oil	8012951
Methyl chloroform (1,1,1-Trichloroethane)	71556	Epoxidized Soybean Oil	8013078
METHYL CYANOACRYLATE	137053	ETHANOL (METHANOL DENATURED)	8013523
Methyl Dihydroxyethylisotridecyloxypropyl Ammonium	68610195	Oil Pettitgrain	8014173
METHYL ETHER	115106	Oil Spike	8016782
Methyl Ethyl Ketone	78933	Spike (Lavender Oil, Spanish)	8016782
Methyl Isoamyl Ketone	110123	Mineral Oil	8020835
Methyl Isobutyl Ketone	108101	Ethanol	8024451
Methyl isopropyl ketone	563804	Ethanol (39C SDA)	8024451
Methyl methacrylate	80626	Ethanol SDA 39C	8024451
Methyl n-amyl Ketone	110430	Saponified Vegetable Oil (Green Soap)	8026708

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Chemical Name	CAS #	Chemical Name	CAS #
METHYL N-PROPYL KETONE	107879	NAPHTHA	8030306
METHYL NAPHTHALENE	65996794	Base Oil	8030309
Methyl Nonyl Ketone	112129	Tallowammonium Trimethyl Chloride	8030782
Methyl propyl ketone (2-Pentanone)	107879	LIGROINE	8032324
METHYL SALICYLATE	119368	Petroleum Ether	8032324
Methyl Tertiary Butyl Ether	1634044	VM & P NAPHTHA	8032324
METHYLAL, DIMETHOXYMETHANE	109875	Mineral White Oil (Slab Oil)	8042475
Methylcyclohexane	108872	White Oil No. 9T	8042475
Methylcyclopentadienyl Manganese Tricarbonyl	12108133	Turpentine Oil Resin	8052140
Methylene Bis (4-Cyclohexylisocyanate)	512431	Aliphatic Hydrocarbon (Stoddard Type)	8052413
Methylene bis (thiocyanate)	6317186	Stoddard Solvent	8052413
Methylene bis(4-cyclohexylisocyanate)	5124301	Asphalt	8052424
Methylene Chloride	75092	Damar gum	9000162
Methylene chloride (Dichloromethane)	75092	Kerosene	9002059
MIBK	108101	Polytetra fluoroethylene	9002840
MIDDLE DISTILLATE PETROLEUM SOLVENT EXTRACT	64742069	Polyethylene	9002884
Mineral Oil	8020835	Octylphenyl Ethylene Oxide	9002931
Mineral Oil	64741964	Polybutene	9003296
Mineral Oil	64742650	Nitrocellulose	9004700
MINERAL OIL	64742525	Sodium Laureth Ether Sulfate	9004824
Mineral Seal Oil	64741442	Sodium Laureth Sulfate	9004824
Mineral Seal Oil	64742309	Sodium Laureth-12 Sulfate	9004824
Mineral Seal Oil	64742467	Sodium Lauryl Ether Sulfate	9004824
Mineral Seal Oil	64742809	Polyethylene Glycol Dilaurate	9005021
MINERAL SEAL OIL	64741657	POLYETHYLENE GLYCOL DILAURATE	9005021
mineral spirits	80524137	GUM TURPENTINE	9005907
Mineral spirits	62742887	Turpentine	9005907
Mineral spirits	68513031	Polymethyl methacrylate	9011147
Mineral Spirits	64475850	Alkylphenol Ethanol	9016459
Mineral Spirits	64741324	Alkylphenol Ethoxylate	9016459
Mineral Spirits	64741442	Nonylphenol Polyethoxylate	9016459
Mineral Spirits	64741657	Octylphenol Ether	9036195
Mineral Spirits	64742428	Polyoxyethylene Oxytol Phenyl Ether	9036195
Mineral Spirits	64742488	CIS 1,3-Dichloropropene	10061015
Mineral Spirits	64742897	Trans 1,3-Dichloropropene	10061026
Mineral Spirits	64748478	Triethanolamine Lauryl Sulfate	11178771
Mineral Spirits	64761419	Gamma-Aminopropyl/ Triethoxysilane	11919302
Mineral Spirits	80542413	Zinc Napthenate	12001853
Mineral Spirits	64742442	DIPROPYLENE GLYCOL METHYL ETHER	12002254
MINERAL SPIRITS	64642887	Methylcyclopentadienyl Manganese Tricarbonyl	12108133
Mineral White Oil (Slab Oil)	8042475	Molybdate Orange	12656858
Modified Polyethoxylated Alcohol	70321561	3-Methyl decane	13151343
MODIFIED POLYETHOXYLATED ALCOHOL	70321561	5-Methyl decane	13151354
Molybdate Orange	12656858	AROMATIC SOLVENT	13330207
mono-Chlorotoluene	25168052	Manalox Resin	13419153
Monochlorobenzene	108907	PPG-2 Methyl Ether	13429077
Monochlorotoluene	25168052	Dipropylene glycol monomethyl ether	13459948
Monosodium Acid Methanearsonate	2163806	Tri (beta-chloropropyl) phosphate	13674845
Morpholine	68855547	Ferbam	14484641
MORPHOLINE	110918	Isohexadecane	15220856
MSMA	2163806	Menthol	15356704
N, N-dimethylformamide	68122	Ethanolamine Sulfite	15535292
N,N-Diethyl-M-Toluamide	134623	4-Methyl nonane	17301949
N,N-DIMETHYL-P-TOLUIDINE	99978	2,6-Dimethylnonane	17302282
n- Butoxypropanol	5131668	Benomyl	17804352
N-(1-Ethylpropyl -3,4-Dimethyl 2,6-Dinitrobenzenam	40487421	2-ETHYL OXY-BIS-HEXANOIC ACID	18268707
N-Alkyl Dimethyl Benzyl Ammonium Chloride	8001545	Tetrachloroisophtainitrile	18947456
N-Alkyl Dimethyl Benzyl Ammonium Chloride	68424851	2-propanol, 1-[2-(2-methoxy-1-methylethoxy)-1-m...	20324338
N-amyl acetate	628637	Tripropylene Glycol Methyl Ether	20324338
N-BUTANE	106978	1,4-bis-bromoacetoxo-2-butene	20679587
n-butanol	71363	Camphor	21368683
n-Butyl Acetate	123864	Intrasol FA 12/18/5	22047490
n-Butyl Alcohol	71363	Wickenol	22047490
N-BUTYL ETHER OF ETHYLENE GLYCOL	111762	1,1,2,3,3-Pentafluoropropane (HFC-245ea)	24270664
N-Butyl Propionate	590012	HFC-245ea (1,1,2,3,3-Pentafluoropropane)	24270664
n-Heptane	142825	Potassium Sorbate	24634615
n-hexane	110543	1,1,3,3-Tetramethylcyclohexane	24770647

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Chemical Name	CAS #	Chemical Name	CAS #
N-Methyl -2- Pyrrolidone	872504	Ethylene/vinyl acetate polymer	24937788
N-Methylpyrrolidone	872504	Unsaturated Polyester Resin	25037665
N-Methylpyrrolidone	120945	PVP/VA Copolymer	25086899
N-OCTANE	111659	Ethyl Ester of PVM/MA Copolymer (w/ethanol)	25087063
N-pentane	109660	Gantrez ES225	25087063
N-Phosphonomethylglycine	1071836	DIMETHYL PHENOL PHOSPHATE	25155231
n-Propanol	71238	Dodecylbenzenesulfonate	25155300
n-Propoxypropanol	1569013	Sodium Dodecylbenzene Sulfonate	25155300
n-Propyl acetate	109604	1,1-dichloro-1-fluoroethane (HCFC-141b)	25167888
N-Propyl Alcohol	71238	HCFC-141b (1,1-Dichloro-1-fluoroethane)	25167888
n-Propylbenzene	103651	Halso AG125 Monochlorotoluene	25168052
N-vinyl-2-pyrrolidone	88120	mono-Chlorotoluene	25168052
NABAM (Disodium Ethylene Bis Dithiocar-	142596	Monochlorotoluene	25168052
NAPHTHA	8030306	Dipropylene glycol	25265718
Naphtha Heavy Alkylate	64741657	Dipropylene glycol	25265718
Naphtha Light Aliphatic	64742898	2,2,4-TRIMETHYL -1,3-MONOISOBUTYRATE	25265774
Naphtha, Heavy Aromatic	64742069	2,2,4-Trimethyl-1,3-pentanediol-iso-butyrate	25265774
NAPHTHA, STRAIGHT RUN, HEAVY	64741419	Texanol	25265774
Naphthalene	91203	ORTHODICHLOROBENZENE	25321226
Naphthenic Acid Lead Salt	61790145	Polyethylene Glycol	25322683
Naphthol Spirits	64792489	Polyglycol P-2000	25322694
Naptherie Distillate	64742525	Propylene Glycol	25322694
Neopentyl glycol (2,2-Dimethyl-1,3-Propanediol)	126307	C12 Alpha Olefin	25378227
Neutral Base Oil	64741895	TRIPROPYLENE GLYCOL	25498491
Niacinamide (3-pyrridine carboxamide)	98920	Tripropylene Glycol Methyl Ether	25498491
Nitrapyrin (Pyrridine, 2-chloro-6-trichloro methyl?)	1929824	Trimethylhexamethylenediamine	25513648
Nitrocellulose	9004700	Ethyltoluenes	25550145
NITROETHANE	79243	Aromatic 150	25551137
Nitroglycerin (1,2,3-propanetriol, trinitrate)	55630	Tenneco 500/100	25551137
NITROMETHANE	75525	Trimethyl Benzene	25551137
Nonane	111842	Polyglycol Dimethacrylate	25852475
NONY PHENOL ETHYLENE OXIDE 6 MOLE	68412544	Isopropyl Alcohol	26080191
Nonyl Phenyl Ethylene Oxide 6M	68412544	5-chloro-2-methyl-4-isothiazoline-3-one	26172554
Nonylphenol Polyethoxylate	9016459	Sodium Tridecylbenzene Sulfonate	26248248
Normal Butyl Alcohol	71363	Alkylaryl Sulfonate	26264051
Norpar 15	64771728	Alkylaryl Sulfonate Isopropylamine Salt	26264051
O, O-dimethyl-O-phosphorothiate	333476	o-cresyl glycidyl ether	26447143
O- Dichlorobenzene	95501	Dodecyl Benzene Sulfonic Acid	27176870
o-benzyl-p-chlorophenol	120321	Dodecylbenzene Sulfonate	27176870
O-CHLOROTOLUENE	95498	2-Ethylhexyl Nitrate	27248967
o-cresyl glycidyl ether	26447143	2-METHYL-2-PROPENOIC ACID MONOESTER	27813021
O-Nitrotoluene	88722	hydroxy alkylmethacrylate	27813021
Octane	111659	Epoxy Resin	28064144
Octanol	111875	Thiobencarb	28249776
OCTYL DIMETHYL AMINE OXIDE	2605789	Paraformaldehyde	30525894
Octyl Epoxy Tallate	61788725	Glyceryl Thioglycolate	30618849
Octylphenol Ether	9036195	Quaternary Ammonium Chloride	31075248
Octylphenyl Ethylene Oxide	9002931	Methacrylic Acid	31346573
Odorless Mineral Spirits	61741657	Glycereth-7	31694550
Odorless Mineral Spirits	64741418	Glycereth-7	31694550
Odorless Mineral Spirits	64742657	(MCPP) Dimethylamine salt	32351705
ODORLESS MINERAL SPIRITS	64475850	Propionic Acid	32351705
ODORLESS MINERAL SPIRITS	64742488	2-Methoxymethylethoxy Propanol	34590948
Odorless Mineral Spirts	64741657	Dipropylene Gycol Methyl Ether	34590948
ODORLESS MINIERAL SPIRITS	64742150	DOWANOL DPM	34590948
Oil Camphor	8008513	Glycol Ether DPM	34590948
Oil Lavender	8000280	Methoxymethyl Ethoxypropanol	34590948
Oil of Pine Tar	8011481	Propanol, 1 (or 2) -2-methoxymethylethoxy)-	34590948
Oil Pettitgrain	8014173	URETHANE DIMETHACRYLATE	39318699
Oil Spike	8016782	Disodium Laureth Sulfosuccinate	39354455
Oleic Acid (9-octadecenoic acid)	112801	3-4 Dimethyl- 2,6 Dinitribenzenamine	40487421
Oleyl Alcohol	143282	N-(1-Ethylpropyl -3,4-Dimethyl 2,6-Dinitrobenzenam	40487421
Orange Oil	8008579	Acetamide, N, N'-(ethenylmethyl-silylene)Bis-N-Me	50791872
Orange Oil	68606940	Permethrin (80 % concentrate)	52645531
Orange Oil Terpenes	68647723	Propionic Acid	53404312
Orange Oil Terpenes	68917577	Solvent Naphtha T500-100	54742956
Orange Terpene	68647723	Ethalfuralin	55283686

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Chemical Name	CAS #	Chemical Name	CAS #
Orange Terpenes	5989275	3-METHYLMETHOXYBUTANOL	56539663
Orchex 796	72623848	ButoxyPropanol	57018527
ORTHO DICHLORO BENZENE	95501	Propylene glycol T-Butyl Ether	57018527
ortho-phenylphenol	90437	Propylene glycol tertiary butyl ether	57018527
ORTHODICHLORO BENZENE	25321226	Clopyralid Monoethanolamine salt	57754855
Oxo-Heptyl Acetate	90438792	D-LIMONENE	58917577
p-dichlorobenzene	106467	1-METHYL - 4 -(1-METHYLETHENYL) CYCLOHEXENE	59892725
p-Menthadiene	68956569	Odorless Mineral Spirits	61741657
P-Menthadienes	68956569	Petroleum Hydrocarbon Mix	61742945
Pale Oil	8002059	Octyl Epoxy Tallate	61788725
Pale Oil	68476302	Carsamide CA	61789193
Panasol AN2K	63798787	Betaine	61789400
Para-dichlorobenzene	106467	Cocamidopropyl Amino Betane	61789400
Parachlorobenzotrifluoride (PCBTF)	98566	Alkali Surfactant	61790123
Parachlorometoxylenol	88040	Naphthenic Acid Lead Salt	61790145
Paraffin Oil	8012951	Barrium Sulfinate	61790485
Paraffin Wax	8002742	Armak 1194	61791262
Paraffinic Distillate	64742650	KD COCO AMIDE	61791319
PARAFFINIC PETROLEUM SOLVENT	64741895	Sodium Cocoyl Sarcosinate	61791591
Parafin series of hydrocarbon solvents	68466868	Mineral spirits	62742887
Paraformaldehyde	30525894	DIMETHYL SILOXANE	63148629
PCBTF (Parachlorobenzotrifluoride)	98566	Polydimethylsiloxane	63148629
Pentachloronitrobenzene	826886	Panasol AN2K	63798787
PENTAETHYLENE GLYCOL	4792158	Dimethicone Copotyol	64365237
Pentafluoroethane (HFC-125)	354336	Mineral Spirits	64475850
Pentane	109660	ODORLESS MINERAL SPIRITS	64475850
PERACETIC ACID	79210	KEROSENE	64642478
Perchloroethylene	127184	Lubricating Oil	64642525
Permethrin (80 % concentrate)	52645531	MINERAL SPIRITS	64642887
Petrolatum	8009038	Mineral Spirits	64741324
PETROLEUM	8000209	Odorless Mineral Spirits	64741418
petroleum distillate	68477316	NAPHTHA, STRAIGHT RUN, HEAVY	64741419
Petroleum Distillate	64741442	Aliphatic Petroleum Hydrocarbon	64741442
Petroleum Distillate	64741657	Mineral Seal Oil	64741442
Petroleum Distillate	64741862	Mineral Spirits	64741442
Petroleum Distillate	64741908	Petroleum Distillate	64741442
Petroleum Distillate	64742376	STRAIGHT RUN MIDDLE PETROLEUM	64741442
Petroleum Distillate	68476302	Petroleum Distillates	64741478
Petroleum Distillate	68551155	Lactol Spirits	64741555
PETROLEUM DISTILLATE	64741771	ALIPHATIC HYDROCARBON	64741657
PETROLEUM DISTILLATE	64741964	Aliphatic petroleum distillates	64741657
Petroleum Distillate (Deodorized Kerosene)	64742149	Alkylation Naphtha, heavy	64741657
Petroleum Distillate, Naphtha	8002059	C10-C11 PARAFFINS CYCLO-PARAFFINS	64741657
Petroleum distillates	64742894	C9-C12 Saturated Hydrocarbons	64741657
Petroleum distillates	64842898	Heavy Alkylate Naphtha	64741657
Petroleum distillates	67472945	ISOPARAFFIN HYDROCARBON	64741657
Petroleum Distillates	64741478	MINERAL SEAL OIL	64741657
Petroleum Distillates	64742309	Mineral Spirits	64741657
PETROLEUM DISTILLATES	64741975	Naphtha Heavy Alkylate	64741657
PETROLEUM DISTILLATES	64742964	Odorless Mineral Spirts	64741657
Petroleum Ether	8032324	Petroleum Distillate	64741657
Petroleum hydrocarbon	64742467	Petroleum Solvent	64741657
Petroleum Hydrocarbon Distillate	64741964	SOL-71	64741657
Petroleum Hydrocarbon Mix	61742945	Soltrol 145	64741657
PETROLEUM HYDROCARBON NAPHTHA	64741920	Aromatic Hydrocarbon Solvent	64741680
PETROLEUM HYDROCARBON OIL	64742525	ALIPHATIC DISTILLATE	64741737
Petroleum Middle Distillate	68476346	HYDROCARBONS	64741737
Petroleum Oil	64741895	PETROLEUM DISTILLATE	64741771
Petroleum Oil	64742650	SOLVENT REFINED LIGHT NAPHTHA	64741840
PETROLEUM OIL	64742467	Textile spirits	64741840
Petroleum Process Oil	64742558	Petroleum Distillate	64741862
Petroleum Resin	64742161	Sun Ag Oil 7N	64741884
Petroleum solvent	64771728	Sunpar 110	64741884
Petroleum Solvent	64741657	Distillates (Petroleum), Solvent-Rf Lt.Nap	64741895
Phenol	108952	Neutral Base Oil	64741895
PHENOL (90%)	108952	PARAFFINIC PETROLEUM SOLVENT	64741895
Phenol Isopropylated, Phosphate	68937417	Petroleum Oil	64741895

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Alphabetical Order		By CAS Number	
Chemical Name	CAS #	Chemical Name	CAS #
Phenoxyethanol	122996	Sun Spray 6N	64741895
Phenyl Trimethicone	2116849	Petroleum Distillate	64741908
Phenylglycol ether	122996	PETROLEUM HYDROCARBON NAPHTHA	64741920
Picloram, Potassium salt	2545600	Mineral Oil	64741964
pine oil	98555	PETROLEUM DISTILLATE	64741964
Pine Oil	8002093	Petroleum Hydrocarbon Distillate	64741964
Piperalin	3478942	PETROLEUM DISTILLATES	64741975
Piperonyl Butoxide	51036	SOLVENT REFINED LIGHT NAPHTHENIC DISTILLATE	64741975
Piperonyl Butoxide, Technical	51036	Aromatic Petroleum Distillate	64741986
PM Acetate	108656	Han Solvent	64742069
PM Acetate	84540578	HAN-857	64742069
Poly Solv DB	112345	MIDDLE DISTILLATE PETROLEUM SOLVENT EXTRACT	64742069
Poly Solv DE	111900	Naphtha, Heavy Aromatic	64742069
Poly Solv EB	111762	2251 Oil (or 2263 Oil @ 64742-47-8)	64742149
Polybutene	9003296	hydrotreated light distillate	64742149
Polydimethylsiloxane	63148629	Light Distillate	64742149
Polyethylene	9002884	Light Naphtha	64742149
Polyethylene Glycol	25322683	Petroleum Distillate (Deodorized Kerosene)	64742149
Polyethylene Glycol Dilaurate	9005021	ODORLESS MINERAL SPIRITS	64742150
POLYETHYLENE GLYCOL DILAURATE	9005021	Petroleum Resin	64742161
Polyglycol 26-3	69029396	Mineral Seal Oil	64742309
Polyglycol 26-3	69029396	Petroleum Distillates	64742309
Polyglycol Dimethacrylate	25852475	SUN GOLDEN OIL #91 (SUN OIL CO.)	64742343
Polyglycol P-2000	25322694	Petroleum Distillate	64742376
Polyisobutylene Solution	64742400	Polyisobutylene Solution	64742400
Polymethyl methacrylate	9011147	Mineral Spirits	64742428
Polyoxyethylene Oxytol Phenyl Ether	9036195	Diesel Fuel #2	64742442
Polysolve DM	111773	Mineral Spirits	64742442
Polytetra fluoroethylene	9002840	Hydrotreated middle distillate	64742467
Potassium dimethyldithiocarbamate	128030	Mineral Seal Oil	64742467
Potassium Sorbate	24634615	Petroleum hydrocarbon	64742467
PPG-2 Methyl Ether	13429077	PETROLEUM OIL	64742467
Primary Amyl Acetate	628637	C10-15 Saturated Hydrocarbon	64742478
Process Oil	64742525	Hydrotreated Light Distillate	64742478
Prometon	1610180	HYDROTREATED LIGHT DISTILLATE	64742478
Prometon - Technical	1610180	Isopar M	64742478
Propane	74986	Mineral Spirits	64742488
PROPANE/BUTANE/ISOBUTANE	68476857	ODORLESS MINERAL SPIRITS	64742488
Propanoic Acid, 3-Ethoxy-Ethyl Ester	763699	C11-13 ISOPARAFFIN	64742489
Propanol, 1 (or 2) -2-methoxymethylethoxy)-	34590948	HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	64742489
Propanone	67641	Isopar C	64742489
PROPELLANT A-108 - PROPANE	74986	Isopar E	64742489
Propionic Acid	32351705	Isopar G	64742489
Propionic Acid	53404312	Isopar H	64742489
Propylene Glycol EP Solvent	2807309	Isopar K	64742489
PROPOXYETHANOL	2807309	Isopar L	64742489
PROPYL ACETATE	109604	ISOPARAFFINIC SOLVENT	64742489
Propyl Alcohol	71238	MINERAL OIL	64742525
Propylbenzene	103651	Naphtherie Distillate	64742525
Propylcyclohexane	1678928	PETROLEUM HYDROCARBON OIL	64742525
Propylene Glycol	57556	Process Oil	64742525
Propylene Glycol	25322694	Corvus Oil 00519-13	64742558
PROPYLENE GLYCOL METHYL ETHER	107556	Petroleum Process Oil	64742558
PROPYLENE GLYCOL METHYL ETHER	107982	Mineral Oil	64742650
PROPYLENE GLYCOL MONOBUTYL ETHER	5131668	Paraffinic Distillate	64742650
Propylene Glycol Monomethyl Ether	107982	Petroleum Oil	64742650
Propylene Glycol Monomethyl Ether Acetate	108656	Heavy Alkylate Naphtha	64742657
Propylene glycol T-Butyl Ether	57018527	Odorless Mineral Spirits	64742657
Propylene glycol tertiary butyl ether	57018527	light petroleum distillate	64742749
Propylene Glycol Methyl Ether Acetate	108656	Mineral Seal Oil	64742809
PVP/VA Copolymer	25086899	Safety Solvent	64742809
Pyrenone CSE-10	8003347	Safety Solvent 200	64742809
Pyrethrins	8003347	Kerosene	64742810
Pyrethrum (PD-5 Residual)	8003347	Light naphtha	64742840
Pyroicide Intermediate 5192 (Pyrethrin)	121211	Aliphatic Petroleum Distillate	64742887
Quarternary Blend (w/20% ethanol)	67784774	Medium Aliphatic Solvent Naphtha	64742887
Quaternary Ammonium Chloride	8001545	Petroleum distillates	64742894

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Chemical Name	CAS #	Chemical Name	CAS #
Quaternary Ammonium Chloride	31075248	V.M.& P. Naphtha	64742896
Refined Petroleum Distillate	92045379	Mineral Spirits	64742897
RESIN A-BENZYL	100516	LIGHT ALIPHATIC NAPHTHA SOLVENT	64742898
S&S, Di-Me,Hydroxy-Terminated UVCB	70131678	Naphtha Light Aliphatic	64742898
S-O,O-Diisopropyl phosphorodithioate	741582	ALIPHATIC HYDROCARBON	64742899
Safety Solvent	64742809	SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742899
Safety Solvent 200	64742809	VM & P Naptha	64742899
SAFROLE #	94597	Aromatic Petroleum Distillates	64742907
Saponified Vegetable Oil (Green Soap)	8026708	Heavy Aromatic Naphtha Solvent	64742945
SD 40 Alcohol	97702180	Xylene-range aromatic solvent	64742954
SD Alcohol 38	64175	LIGHT AROMATIC NAPHTHA SOLVENT	64742956
SD Alcohol 40	64175	Aliphatic Hydrocarbon	64742963
SD-Alcohol	64175	PETROLEUM DISTILLATES	64742964
SDA	64175	aliphatic petroleum distillate	64742967
SDA-38B	64175	Deodorized Kerosene	64742967
SDA-40 (Denatured Alcohol)	64175	Aliphatic Hydrocarbon	64742977
SDA-40B Alcohol (Ethanol)	64175	Mineral Spirits	64748478
Sec-butanol	78922	SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64752898
sec-Butyl alcohol	78922	Mineral Spirits	64761419
Silanamine, 1,1,1-Trimethyl-n-(Trimethylsilyl)	68909206	Aliphatic Hydrocarbon	64771728
Silicic Acid (HASiO ₄), Tetrapropyl	682019	Norpar 15	64771728
Slane, Trimethoxymethyl-	1185553	Petroleum solvent	64771728
Sodium Alkyl Benzene Sulfonate	2211985	Naphthol Spirits	64792489
Sodium Cocoyl Sarcosinate	61791591	Petroleum distillates	64842898
Sodium Dimethyldithiocarbamate	128041	Alkali Surfactant NM	64972196
Sodium Dodecylbenzene Sulfonate	25155300	METHYL NAPHTHALENE	65996794
Sodium Laureth Ether Sulfate	9004824	Petroleum distillates	67472945
Sodium Laureth Sulfate	151213	Quaternary Blend (w/20% ethanol)	67784774
Sodium Laureth Sulfate	9004824	Coco Diethanolamide-sulfonate	67785119
Sodium Laureth-12 Sulfate	9004824	Coco Diethanolamide	67785131
Sodium Lauryl Ether Sulfate	9004824	Bismuth Octoate	67874719
Sodium Lauryl Sulfate	151213	Triton	67923879
Sodium Lauryl Sulfate Ether	1335724	Triton X-200	67923879
Sodium Molybdate	7631950	LINSEED OIL	68001261
Sodium Oleate	143191	Hydrocarbon resin	68003510
Sodium Pareth-25 Sulfate (w/11% ethanol)	68891383	Tallow Imid Methosulfate	68122861
Sodium Tridecylbenzene Sulfonate	26248248	Tallow Imid Methosulfate	68122861
Sodium Xylene Sulfonate	1300727	C12-C15 Ethoxylated Alcohol	68131395
SOL-71	64741657	Ethoxylated Alcohol C12-15	68131395
Soltrol 145	64741657	Cocoamidopropyl Amine Oxide 35%	68155099
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742899	Isopropyl Isosterate	68171335
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64752898	Sulfonated Castor Oil	68187768
Solvent Naphtha T500-100	54742956	Aliphatic petroleum distillates	68334305
SOLVENT REFINED LIGHT NAPHTHA	64741840	Alkyl Dimethyl Benzyl Ammonium Chloride	68391015
SOLVENT REFINED LIGHT NAPHTHENIC DISTILLATE	64741975	Alkyl dimethylbenzylammonium chloride	68391015
Sorbitol (D-Glucitol, C ₆ H ₁₄ O ₆)	50704	BTC-2125M 80% Stephan Company	68391015
SORBITOL (D-Glucitol, C ₆ H ₁₄ O ₆)	50704	BTC-8249 Stephan Company	68391015
Spike (Lavender Oil, Spanish)	8016782	Methyl Bis Hydroxyethyl Ammonium Methylsulfate	68410695
Spruce oil	8008808	NONY PHENOL ETHYLENE OXIDE 6 MOLE	68412544
Standard Denatured Alcohol	77021810	Nonyl Phenyl Ethylene Oxide 6M	68412544
Steam Distilled Wood Turpentine	8006642	benzyl ammonium chloride	68424851
Stearalkonium chloride	122190	Benzylkonium Chloride (w/ 20% ethanol)	68424851
Stoddard Solvent	8052413	N-Alkyl Dimethyl Benzyl Ammonium Chloride	68424851
STRAIGHT RUN MIDDLE PETROLEUM	64741442	Bardac 208M Lonza	68424955
STYRENE (ethenyl benzene)	100425	Alcohol Ethoxylate	68439509
Sulfonated Castor Oil	68187768	Alkyl Olefin Sulfonate	68439576
Sun Ag Oil 7N	64741884	Alkyl Olefin Sulfonate, Sodium Salt	68439576
SUN GOLDEN OIL #91 (SUN OIL CO.)	64742343	Parafin series of hydrocarbon solvents	68466868
Sun Spray 6N	64741895	C3-C4 Alkane Propellant	68475592
Sunpar 110	64741884	C3-C4 Propellant	68475592
SWEETENED LIQUIFIED PETROLEUM GAS	68476858	isobutane/propane	68475592
T 500-100	68920069	fuel oil no. 2	68476302
T-Amyl Alcohol	75854	Pale Oil	68476302
T-Butyl Alcohol	75650	Petroleum Distillate	68476302
T-Mulz 2900, Harcos, Kansas	69980741	#2 Diesel Fuel	68476346
Tall Oil	8002264	Diesel Fuel	68476346
Tallow Imid Methosulfate	68122861	Petroleum Middle Distillate	68476346

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Chemical Name	CAS #	Chemical Name	CAS #
Tallow Imid Methosulfate	68122861	High Flash Naptha	68476799
Tallowammonium Trimethyl Chloride	8030782	A-70 Hydrocarbon Propellant	68476857
TEA-Laurel Sulfate	139968	ISOBUTANE/ PROPANE	68476857
Technical piperonly butoxide	51036	Liquified Petroleum Gas	68476857
Tenneco 500/100	25551137	PROPANE/BUTANE/ISOBUTANE	68476857
Terpene	68956569	SWEETENED LIQUIFIED PETROLEUM GAS	68476858
TERPENE ALCOHOLS	98555	HYDROCARBON PROPELLANT	68476868
Terpene Hydrocarbons	8002093	Isobutane/Propane	68476868
Terpineol	8000417	L.P. Gas Propellant	68476868
Terpinol	8000417	Liquid Petroleum Propellant	68476889
TERT-BUTYL ALCOHOL	75650	Aromatic 200 Solvent	68477316
Tetrabutyl Titanate	5593704	AROMATIC HYDROCARBON SOLVENT	68477316
Tetrachloroethylene	127184	AROMATIC PETROLEUM DISTILLATE	68477316
Tetrachloroisophtaianitrile	18947456	petroleum distillate	68477316
Tetraethylene Glycol	112607	Mineral spirits	68513031
Tetraethylene Glycol Dimethacrylate	109171	Butane, branched and linear	68513655
Tetraethylene Pentamine	112572	C9-C12 Alkylbenzenes	68515253
tetrahydro-3,5-dimethyl1-2-H-1,3,5-thiadiazine-2-e	533744	Disodium Cocamide Mipa Sulfosuccinate	68515651
Tetrahydrofuran	109999	Ethoxylated Alcohol C12-16	68551122
TETRAHYDROFURFURYL ALCOHOL	97994	Ethoxylated Alcohol C12-16	68551122
Tetramethylthiuran Disulfide	137268	Petroleum Distillate	68551155
Tetrapropyl Orthosilicate	68209	C9-11 ISOPARAFFIN	68551166
Tetrapropyl Orthosilicate	682019	C11-12 Isoparaffin	68551177
Tetrasodium EDTA	64028	C11-13 Isoparaffin Solvent	68551177
tetrohydrofuran	2455245	Isomeric Hydrocarbons	68551188
Texanol	25265774	LPA Petroleum Distillate	68551188
Texanol iso-butyrate	6846500	ISOPARAFFINIC PETROLEUM	68551199
Textile spirits	64741840	Ethoxy Sulfate, Neodol 25-3S	68586342
Textile Spirits	110543	C-8/C-10 Alcohol	68603156
Thiobencarb	28249776	Coconut Diethanolamine	68603429
Thiodan - Technical	115297	Fatty Diethanolamide	68604353
Thioglycolate, Ammonium Salt	5421465	Orange Oil	68606940
Thioglycolic Acid	68111	2-Ethanolhexanol distillates	68609687
Thiram - Technical	137268	Alkyl Glycidyl Ether	68609972
TOLUENE	108883	Methyl Dihydroxyethylisotridecyloxypropyl Ammonium	68610195
Trans 1,3-Dichloropropene	10061026	d-Limonene	68647723
trans-Decalin	49327	Orange Oil Terpenes	68647723
Tri (beta-chloropropyl) phosphate	13674845	Orange Terpene	68647723
Tributoxy Ethyl Phosphate	78513	Morpholine	68855547
TRIBUTOXY ETHYL PHOSPHATE	78513	Sodium Pareth-25 Sulfate (w/11% ethanol)	68891383
Tributoxyethyl Phosphate	78513	Silanamine, 1,1,1-Trimethyl-n-(Trimethylsilyl)	68909206
Trichlorfon	52686	Witch Hazel	68916392
Trichloroethylene	79016	Witch Hazel Distillate	68916392
Trichlorofluoromethane (CFC-11)	75694	Witch Hazel Distillate	68916781
Trichlorotrifluoroethane (CFC-113)	76131	Lemon Oil	68916892
Triethanolamine	102716	D-Limonene	68917577
Triethanolamine Lauryl Sulfate	11178771	Orange Oil Terpenes	68917577
TRIETHYL PHOSPHITE	122521	Triethylene Tetramine	68919799
Triethylamine	121448	T 500-100	68920069
Triethylene Glycol	112276	Phenol Isopropylated, Phosphate	68937417
TRIETHYLENE GLYCOL	112276	p-Menthadiene	68956569
Triethylene Glycol Dimethyl Ether	112492	P-Menthadienes	68956569
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143226	Terpene	68956569
Triethylene Tetramine	68919799	Alkyl Dimethyl Ethyl Benzyl Ammonium Chloride	68956790
TRIETHYLENEDIAMINE	280579	LINEAR ALCOHOL ETHOXYLATE	69013189
Trifluoromethane (HFC-23)	75467	Polyglycol 26-3	69029396
Trifluralin	1582098	Polyglycol 26-3	69029396
Trimethyl Benzene	25551137	Cyclomethicone	69430246
Trimethylhexamethylenediamine	25513648	Cyclomethicone (DC 244)	69430246
Triphenol Phosphate	115866	Cyclomethicone (DC245/345)	69430246
TRIPROPYLENE GLYCOL	25498491	CYCLOMETHICONE TETRAMER	69430246
Tripropylene Glycol Methyl Ether	20324338	Dow Corning 344	69430246
Tripropylene Glycol Methyl Ether	25498491	T-Mulz 2900, Harcos, Kansas	69980741
Tris (hydroxymethyl) nitromethane	126114	S&S, Di-Me,Hydroxy-Terminated UVCB	70131678
Triton	67923879	X 22-160	70131678
Triton X-200	67923879	Modified Polyethoxylated Alcohol	70321561
Turpentine	8006642	MODIFIED POLYETHOXYLATED ALCOHOL	70321561

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Chemical Name	CAS #	Chemical Name	CAS #
Turpentine	9005907	2-Methoxy-1-Propanol Acetate	70657704
Turpentine Oil Resin	8052140	Cocoamidopropyl Betaine	70851079
Undecane	1120214	Emcol 14	71012107
Undecenoic Acid	112389	Orchex 796	72623848
Unsaturated Polyester Resin	25037665	Dialkyl methyl benzylammonium chloride	73049759
URETHANE DIMETHACRYLATE	39318699	Isohexane	73513425
V.M.& P. Naphtha	64742896	Standard Denatured Alcohol	77021810
Vegetable Glycerin	56815	kerosene	80082061
Vinyl acetate	108054	mineral spirits	80524137
VM & P NAPHTHA	8032324	Mineral Spirits	80542413
VM & P Naptha	64742899	Imazaquin	81335479
White Oil No. 9T	8042475	PM Acetate	84540578
Wickenol	22047490	Witch Hazel Distillate	84696195
Wilcolate A	151213	Witch Hazel Extract	84696195
Witch Hazel	68916392	c6-oxo Alcohol Acetate	88230357
Witch Hazel Distillate	68916392	DIETHYLENE GLYCOL METHYL ETHERS	89399280
Witch Hazel Distillate	68916781	Alkyl Acetate	90438792
Witch Hazel Distillate	84696195	Oxo-Heptyl Acetate	90438792
Witch Hazel Extract	84696195	Refined Petroleum Distillate	92045379
X 22-160	70131678	Ethyl Alcohol	97702170
Xylene	108383	SD 40 Alcohol	97702180
Xylene	1330207	1,1,1,2,3,4,4,5,5-Decafluoropentane (HFC 43-10mee)	*****
Xylene (Mixture)	1330207	HFC 43-10mee (1,1,1,2,3,4,4,5,5-Decafluoropentane)	*****
Xylene (o)	95476	1-Ethoxy-1,1,2,2,3,3,4,4,4-nonfluorobutane (C4F9OC2H5)	*****
XYLENE (p)	106423	C4F9OC2H5 (1-Ethoxy-1,1,2,2,3,3,4,4,4-nonfluorobutane)	*****
Xylene in technical - Methyl Parathion	1330207	2-(Ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane	*****
Xylene Mixed O, M, & P Isomers	1330207	2-(Ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane	*****
Xylene-range aromatic solvent	64742954	1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C4F9OCH3)	*****
Xylenols - mixed	1300716	C4F9OCH3 (1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane)	*****
Xylol (p)	106423	2-(Difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane	*****
Zinc Napthenate	12001853	2-(Difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane	*****

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About the ChemFinder WebServer Project

On the face of it, a way to search for chemical compounds over the World Wide Web is not a novel concept. WWW-based chemical search engines (the original Macintosh version of the ChemFinder WebServer among them) have existed since at least mid-1995. General-purpose databases of WWW contents (such as Yahoo and Alta Vista) have existed far longer. So what's the deal with this ChemFinder WebServer?

The key, you might say, is in the chemistry. It's one thing to pop over to Lycos and do a search for all references to Aluminum Hydroxide. It's another thing to actually find them -- especially if the information you want is at a site in Australia under the listing Aluminium Hydroxide. Or if there is simply a passing mention of the compound with CAS RN 21645-51-2. Or a compound with the molecular formula $Al(OH)_3$.

By working from a single master list of chemical compounds, the ChemFinder WebServer avoids these problems, and lets you find the information you want, faster. In generating this database, we have also taken pains to identify and correct the obvious errors (like 'mehtyl', as well as invalid CAS RNs) that account for 3-5% of of all chemical information on the WWW. Very likely we have introduced some new and exciting mistakes of our own, but we are confident that the overall quality of the ChemFinder WebServer data far surpasses the bulk of the information that it indexes.

Because the ChemFinder WebServer is a chemical database, it can also provide information that a general-purpose WWW index cannot, including physical property data and 2D chemical structures. This information is somewhat sparse at the moment, but is very good for the several thousand most-common compounds. We are constantly working on getting more data, and we expect the ChemFinder WebServer only to keep improving.

As an almost-incident side benefit, the list of sites indexed is also the largest single list of chemical

information sites (by at least double the size of the next-largest) that we are aware of.

Technical Specifications

The ChemFinder WebServer is currently running on a 266 MHz Pentium II machine. It uses WebSite 1.1 to communicate with ChemDraw Pro 4.5 and ChemFinder Pro 4.0 via a Visual Basic CGI. There are over 75,000 unique substances indexed in the ChemFinder WebServer database from over 350 sites, and these numbers change on a continual basis.



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General Searching Instructions -- Simple Search Form

The Simple query form of the ChemFinder WebServer is designed to make it as easy as possible to locate common types of chemical information. You may enter a chemical **name**, **formula**, **molecular weight**, or **CAS Registry Number**. The ChemFinder WebServer will identify the type of search you want, and provide the hits accordingly. To view in ChemDraw or Chem3D the chemical structures of the compounds you find, you will also need to [configure your browser to view chemical structures in ChemDraw or Chem3D](#).

If you plan on regularly viewing chemical structures in ChemDraw or Chem3D, you probably want to use the [Plug-In-enhanced version of the ChemFinder WebServer](#), which offers more precise control over search terms as well.

Name

Name searches will look for your standard chemical names, such as '1,4-dimethylbenzene' or 'cyclobutadiene'. An asterisk (*) serves as a wildcard, allowing the creation of "name starts with", "name ends with", and "name contains" searches. For example, '*benzene' will match '1,2-dichlorobenzene'.

The ChemFinder Webserver is *very* tolerant of typographic variations in names. All of '1,2-dichlorobenzene', '1 2 dichlorobenzene', and '1.2dichloro benzene' (and many others) will match '1,2-dichlorobenzene'. Even more-complicated variations will be recognized: 'acetic acid, sodium salt' is a perfectly reasonable search string for 'sodium acetate'. 'Cupric chloride' will match 'copper (II) chloride' and so on. This intelligence is far from absolute, but it should greatly increase the chances of your finding the information you want on the first try.

Formula

Formula searches are, foremost, case **insensitive**. 'c6h6' works as well as 'C6H6' and 'c6H6'. It is possible to enter an ambiguous formula ('cooh' is interpreted as 'COOH', not 'CoOH'), so if you have problems, use

proper capitalization.

Formula searches also support ranges of elements. A query like 'C6Cl1-6' will find all chlorinated benzenes (and possibly a bunch of other stuff as well). It is perfectly reasonable to use zero in a range. A query like 'c4h10o0-1' will find both butane and butanol (and possibly other stuff).

Note that not all structures in the database currently have chemical formulas assigned.

Molecular Weight

MW searches understand significant digits, so a search for 'MW is 100' will find all compounds whose molecular weight is > 99.5 and < 100.5 .

Note that not all structures in the database currently have molecular weights assigned.

CAS Registry Number

CAS Registry Number searches attempt to locate a substance by its Chemical Abstracts Service Registry Number. The standard format for a CAS RN is xxxxxx-xx-x, but the ChemFinder Webserver will recognize the same number as valid even without the dashes. Leading zeroes are optional. Since the last digit of each CAS RN is a built-in checksum, the ChemFinder Webserver is able to recognize many of the more common mistypings.



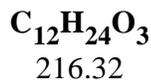
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2,2,4-trimethyl-1,3-pentanediol isobutyrate

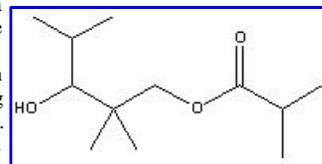
[25265-77-4]

Synonyms: Texanol; Propanoic acid, 2-methyl-, monoester with 2,2,4-trimethyl-1,3-pentanediol; 2,2,4-Trimethyl-1,3-pentanediolmono(2-methylpropanoate); 2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate; isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol



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Melting Point (°C)	--	Specific Gravity	0.95
Boiling Point (°C)	244	Vapor Density	--
Evaporation Rate	--	Water Solubility	--
Flash Point (°C)	--	EPA Code	--
DOT Number	--	RTECS	UF6000000
Comments	Solvent.		

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