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## **1. INTRODUCTION**

The Chemical Hazards Response Information System (CHRIS) is designed to provide information needed for decision-making by responsible Coast Guard personnel during emergencies that occur during the water transport of hazardous chemicals. CHRIS also provides much information that can be used by the Coast Guard in its efforts to achieve better safety procedures and so prevent accidents.

CHRIS consists of a handbook or manual, a hazard assessment computer system (HACS), and technical support personnel located at Coast Guard headquarters. These components and their relations to one another are described in Section 2 of this manual.

## **2. COMPONENTS OF CHRIS**

### **2.1 HAZARDOUS CHEMICAL DATA**

This manual is the cornerstone of CHRIS. For each substance, it lists the specific chemical, physical, and biological data needed for the preparation and use of the other components of the system. The manual can also be used after the initial response action, when there is sufficient time to use more detailed information.

The Hazardous Chemical Data Manual is intended for use primarily by the On-Scene Coordinator (OSC) and by Regional Response Teams for devising, evaluating, and carrying out response plans.

### **2.2 HAZARD ASSESSMENT COMPUTER SYSTEM**

The Hazard Assessment Computer System (HACS) permits trained specialists to obtain very detailed hazard evaluations quickly, when requested by OSC personnel, and can be accessed through the National Response Center.

### 3. EXPLANATION OF TERMS

This section explains the special terms used in the data sheets, gives the sources of specific items, and includes other information that will be useful to the reader in interpreting the data. The paragraphs below are keyed to the relevant portions by the subheading and number used in the data sheets.

The expression “**Not pertinent**” means that the data item either has no real meaning (such as the flash point of a nonflammable chemical) or is not required for assessing a hazardous situation. The expression “**Currently not available**” means that the information sought was not found in the general or specialized data sources listed in Section 10 of this manual. In a few cases where important data were not available, values were estimated by usually reliable procedures; all such values are labeled “**(est.)**”. If more accurate values for those items are found, they will be included in later revisions.

The **name** used for each of the chemicals included in the CHRIS manuals is either (1) that specified in the Code of Federal Regulations, Title 46, Part 151 or (2) a common name for those chemicals not now regulated by Sub chapters O and D but known to be hazardous during shipment. The data sheets are arranged in alphabetic order by chemical name, not by the 3-letter code.

The **3-letter code** is designed to facilitate correct identification of chemicals in oral or written communication. The code should be used only *in addition* to the compound name; it should not be used alone. For transmitting the code, use the phonetic alphabet given in the “International Code of Signals.”

#### 1. RESPONSE TO DISCHARGE

In every case of a discharge or leak, it is obvious that an effort should be made to reduce, stop, or contain the flow of material at its source if this can be done safely. The purpose of the terms used in this section is to describe in a general way the cautionary and corrective responses that are described in greater detail in the Response Methods Handbook.

- “*Issue warning*” is used when the chemical is a *poison*, has a *high flammability*, is a *water contaminant*, is an *air contaminant* (so as to be hazardous to life), is an *oxidizing material*, or is *corrosive*.
- “*Restrict access*” is used only for those chemicals that are unusually and immediately hazardous to personnel unless they are protected properly by respirators, protective clothing, etc.
- “*Evacuate area*” is used primarily for unusually poisonous chemicals or those that ignite easily.
- “*Mechanical containment*” is used for water-insoluble chemicals that float and do not evaporate readily.

- “*Should be removed*” is used for chemicals that cannot be allowed to disperse because of their harmful effect on humans or on the ecological system in general. The term is not used unless there is a reasonable chance of preventing dispersal, after a discharge or leak, by chemical and physical treatment.
- “*Chemical and physical treatment*” is recommended for chemicals that can be removed by skimming, pumping, dredging, burning, neutralization, absorption, coagulation, or precipitation. The corrective response may also include the use of dispersing agents, sinking agents, and biological treatment.
- “*Disperse and flush*” is used for chemicals that can be made non-hazardous to humans by simple dilution with water. In a few cases the response is indicated even when the compound reacts with water because, when proper care is taken, dilution is still the most effective way of removing the primary hazard.

## 2. CHEMICAL DESIGNATIONS

**2.1 Coast Guard Compatibility Classification** - An entry is made when the chemical has been assigned to one of the 43 cargo groups listed in Code of Federal Regulations, Title 46, Part 150, “Compatibility of Cargoes.” Appropriate parts of these regulations are included in this manual. Chemicals included in the regulation were assigned to a group by the Cargo and Hazardous Materials Standards Division, Coast Guard Headquarters. If the chemical is not a liquid carried in bulk in ships' tanks, this data item is “Not listed.”

**2.2 Chemical Formula** - This has been limited to a commonly used one-line formula. In the case of some organic compounds it has not been possible to represent chemical structure within such a limitation.

**2.3 IMO/United Nations Numerical Designation** - The designation is that of the “International Maritime Dangerous Goods Code” published by the International Maritime Organization (IMO), London, 1977.

**2.4 Department of Transportation Identification Number** - This is an identification number assigned by the Department of Transportation to aid in categorizing hazards and recommended responses. The ID's can be located in the Hazardous Materials Table, part 172.101 of 49 CFR.

**2.5 Chemical Abstracts Services Registry Number** - The unique identification number assigned each compound registered with the Chemical Abstracts Service (CAS) is listed to aid in quick identification of the compound.

**2.6 NAERG Guide Number** – The number of the guide in the North American Emergency Response Guidebook listing specific emergency response actions for a particular CHRIS chemical. The 1996 edition of the guidebook was used in the preparation of this edition of the CHRIS manual.

**2.7 Standard Industrial Trade Classification** – The five digit code identifying the chemical's commodity category per revision 3 of the subject classification. These codes are compatible with the International Harmonized System codes used in foreign trade.

### 3. HEALTH HAZARDS

**3.1 Personal Protective Equipment** - The items listed are those recommended by (a) manufacturers, either in technical bulletins or in Material Safety Data Sheets, (b) the Chemical Manufacturers Association, or (c) the National Safety Council, for use by personnel while responding to fire or accidental discharge of the chemical. They are intended to protect the lungs, eyes, and skin. Safety showers and eyewash fountains are considered to be important protective equipment for the handling of almost all chemicals; they are not usually listed.

**3.2 Symptoms Following Exposure** - These are brief descriptions of the effects observed in humans when the vapor (gas) is inhaled, when the liquid or solid is ingested (swallowed), and when the liquid or solid comes in contact with the eyes or skin.

**3.3 Treatment for Exposure** - "First-aid" procedures are recommended. They deal with exposure to the vapor (gas), liquid, or solid and include inhalation, ingestion (swallowing) and contact with eyes or skin. The instruction "Do NOT induce vomiting" is given if an unusual hazard is associated with the chemical being sucked into the lungs (aspiration) while the patient is vomiting. "Seek medical attention" or "Call a doctor" is recommended in those cases where only competent medical personnel can treat the injury properly. In all cases of human exposure, seek medical assistance as soon as possible.

**3.4 Threshold Limit Value – Time Weighted Average** -The Threshold Limit Value Time Weighted Average (TLV-TWA) is usually expressed in units of parts per million (ppm) - i.e., the parts of vapor (gas) per million parts of contaminated air by volume at 25°C (77°F) and one atmosphere pressure. For a chemical that forms a fine mist or dust, the concentration is given in milligrams per cubic meter (mg/m<sup>3</sup>). The TLV is defined as the concentration of the substance in air that can be breathed for five consecutive eight-hour workdays (40-hour work week) by most people without adverse effect (American Conference of Governmental Industrial Hygienists, "Threshold Limit Values for Substance in Workroom Air, Adopted by ACGIH"). As some people become ill after exposure to concentrations lower than the TLV, this value cannot be used to define exactly what is a "safe" or "dangerous" concentration.

No entry appears when the chemical is a mixture; it is possible to calculate the TLV for a mixture only when the TLV for each component of the mixture is known and the composition of the mixture by weight is also known.

**3.5 Threshold Limit Value - Short-Term Exposure Limits** - The parts of vapor (gas per million parts of contaminated air by volume at 25°C (77°F) and one atmosphere pressure is given. The limits are given in milligrams per cubic meter



for chemicals that can form a fine mist or dust. The values given are the maximum permissible average exposures for the time periods specified.

**3.6 Threshold Limit Value – Ceiling Value** – The parts of vapor (gas per million parts of contaminated air by volume at 25°C (77°F) and one atmosphere pressure is given. The limits are given in milligrams per cubic meter for chemicals that can form a fine mist or dust. The values given are for a concentration that is not to be exceeded at any time.

**3.7 Toxicity by Ingestion** - The Grade and corresponding LD<sub>50</sub> value are those defined by the National Academy of Sciences, Committee on Hazardous Materials, "Evaluation of the Hazard of Bulk Water Transportation of Industrial Chemicals, A Tentative Guide," Washington, D.C., 1972. Data were also collected from other sources and converted to the appropriate Grade before entry in this manual. The term LD<sub>50</sub> signifies that about 50% of the animals given the specified dose by mouth will die. Thus, for a Grade 4 chemical (below 50 mg/kg) the toxic dose for 50% of animals weighing 70 kg (150 lb) is 70 X 50 = 3500 mg = 3.5 g, or less than 1 teaspoonful; it might be as little as a few drops. For a Grade 1 chemical (5 to 15g/k g), the LD<sub>50</sub> would be between a pint and a quart for a 150-lb man. All LD<sub>50</sub> values have been obtained using small laboratory animals such as rodents, cats, and dogs. The substantial risks taken in using these values for estimating human toxicity are the same as those taken when new drugs are administered to humans for the first time.

**3.8 Toxicity by Inhalation** – Similar to the Toxicity by Ingestion entry, except that the route of exposure is inhalation instead of ingestion. Units and definition of units are the same.

**3.9 Chronic Toxicity** - Where there is evidence that the chemical can cause cancer, mutagenic effects, teratogenic effects, or a delayed injury to vital organs such as the liver or kidney, a qualitative description of the effect is given.

**3.10 Vapor (Gas) Irritant Characteristics** - The most appropriate of five statements listed below is given. Source: National Academy of Sciences, Committee on Hazardous Materials, "Evaluation of the Hazard of Bulk Water Transportation of Industrial Chemicals, A Tentative Guide," Washington, D.C., 1972.)

- (1) Vapors are nonirritating to eyes and throat.
- (2) Vapors cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.
- (3) Vapors cause moderate irritation such that personnel will find high concentrations unpleasant. The effect is temporary.
- (4) Vapors are moderately irritating such that personnel will not usually tolerate moderate or high concentrations.
- (5) Vapors cause severe irritation of eyes and throat and can cause eye and lung injury. They cannot be tolerated even at low concentrations.

**3.11 Liquid or Solid Irritant Characteristics** - The most appropriate of the following five statements is given (same source as 5.8 above):

- (1) No appreciable hazard. Practically harmless to the skin.
- (2) Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of skin.
- (3) Causes smarting of the skin and first-degree burns on short exposure; may cause second-degree burns on long exposure.
- (4) Fairly severe skin irritant. May cause pain and second-degree burns after a few minutes' contact.
- (5) Severe skin irritant. Causes second- and third-degree burns on short contact and is very injurious to the eyes.

**3.12 Odor Threshold** - This is the lowest concentration in air that most humans can detect by smell. The value cannot be relied on to prevent over-exposure, because human sensitivity to odors varies over wide limits, some chemicals cannot be smelled at toxic concentrations, odors can be masked by other odors, and some compounds rapidly deaden the sense of smell.

**3.13 IDLH Value** - The Immediately Dangerous to Life and Health Value - This concentration represents a maximum level from which one could escape within 30 minutes without any escape-impairing symptoms or any irreversible health effects. The concentrations are reported in either parts per million (ppm) or milligrams per cubic meter ( $\text{mg}/\text{m}^3$ ).

**3.14 OSHA Permissible Exposure Limit – Time Weighted Average** – Similar to the definition of the TLV-TWA above, except that this limit has been promulgated by the Occupational Safety and Health Agency.

**3.15 OSHA Permissible Exposure Limit – Short Term Exposure Limit** – Similar to the definition of the TVL-STEL above, except that this limit has been promulgated by the Occupational Safety and Health Agency.

**3.16 OSHA Permissible Exposure Limit – Ceiling** – Similar to the definition of the TVL-Ceiling above, except that this limit has been promulgated by the Occupational Safety and Health Agency.

**3.17 EPA AEGL** – Acute Exposure Guideline information from the Environmental Protection Agency for the specific compound listed in the manual.

## 4. FIRE HAZARDS

**4.1 Flash Point** - This is defined as the lowest temperature at which vapors above a volatile combustible substance will ignite in air when exposed to a flame. Depending on the test method used, the values given are either Tag closed cup (C.C.) (ASTM D56) or Cleveland open cup (O.C.) (ASTM D93). The values, along with those in 6.2 and 6.7 below, give an indication of the relative flammability of the chemical. In general, the open cup value is about 10° to 15°F higher than the closed cup value.

**4.2 Flammable Limits in Air** - The percent concentration in air (by volume) is given for the lower (LFL) and upper (UFL) limit. The values, along with those in 6.1 and 6.7, give an indication of the relative flammability of the chemical. The limits are sometimes referred to as “lower explosive limit” (LEL) and “upper explosive limit” (UEL).

**4.3 Fire Extinguishing Agents** - The agents are listed in decreasing order of importance. The general capabilities of all agents are described in section 6, “Fire Protection Handbook,” 18th ed., National Fire Protection Association, Boston, Mass., 1997.

**4.4 Fire Extinguishing Agents Not to be Used** - The agents listed must not be used because they react with the chemical and create an additional hazard. In some cases they are listed because they are ineffective in putting out the fire.

**4.5 Special Hazards of Combustion Products** - Some chemicals decompose or burn to give off toxic and irritating gases. Such gases may also be given off by chemicals that vaporize in the heat of a fire without either decomposing or burning. If no entry appears, the combustion products are thought to be similar to those formed by the burning of oil, gasoline, or alcohol; they include carbon monoxide (poisonous), carbon dioxide, and water vapor. The specific combustion products are usually not well known over the wide variety of conditions existing in fires; some may be hazardous.

**4.6 Behavior in Fire** - Any characteristic behavior that might increase significantly the hazard involved in a fire is described. The formation of dense smoke or flammable vapor clouds, and the possibility of polymerization and explosions is stated. Unusual difficulty in extinguishing the fire is also noted.

**4.7 Ignition Temperature** - This is the minimum temperature at which the material will ignite without a spark or flame being present. Along with the values in 6.1 and 6.2 above, it gives an indication of the relative flammability of the chemical. It is sometimes called the “autoignition temperature.” The method of measurement is given in ASTM D-2155.

**4.8 Electrical Hazard** - The ease with which the chemical is ignited by electrical equipment is indicated by the Group and Class assignment made in the National Fire Protection Association, “Hazardous Chemicals Data,” Boston, Mass., 1994 and in “Classification of Gases, Liquids, and Volatile Solids

Relative to Explosion-Proof Electrical Equipment," National Academy of Sciences, 1982. This information is available for relatively few chemicals, so an absence of data does not necessarily mean that the substance is not hazardous in the presence of electrical equipment.

**4.9 Burning Rate** - The value is the rate (in millimeters per minute) at which the depth of a pool of liquid decreases as the liquid burns. Details of measurement are given by D.S. Burgess, A. Strasser, and J. Grumer, "Diffusive Burning of Liquid Fuels in Open Trays," Fire Research Abstracts and Reviews, 3, 177 (1961).

**4.10 Adiabatic Flame Temperature** - The value is the temperature in degrees Fahrenheit of the flame when the material is burned under adiabatic conditions.

**4.11 Stoichiometric Air to Fuel Ratio** - The value is the ratio of air to the compound in question required for stoichiometric combustion. Since it is a ratio, the value is dimensionless.

**4.12 Flame Temperature** - The value is the temperature in degrees Fahrenheit of the flame produced by burning the compound under stoichiometric conditions without any rate controls.

**4.13 Molar Ratio (Reactant to Product)** – The number of moles of products formed, assuming complete combustion of a single mole of the chemical reactant. These ratios were calculated assuming there was sufficient oxygen available and that combustion did, in fact, go to completion.

**4.14 Minimum Oxygen Concentration for Combustion (MOCC)** – Information from NFPA-69 regarding the minimum percentage of oxygen required to support combustion of the subject compound. The results are reported for oxygen diluted with nitrogen (N<sub>2</sub>) and/or carbon dioxide (CO<sub>2</sub>).

## 5. CHEMICAL REACTIVITY

**5.1 Reactivity with Water** - The term "No reaction" means that no hazard results when the chemical reacts or mixes with water. Where a hazard does result, it is described.

**5.2 Reactivity with Common Materials** - This is limited to hazardous reactions with fuels and with common materials of construction such as metal, wood, plastics, cement, and glass. The nature of the hazard, such as severe corrosion or formation of a flammable gas, is described.

**5.3 Stability During Transport** - The term "Stable" means that the chemical will not decompose in a hazardous manner under the conditions of temperature, pressure, and mechanical shock that are normally encountered during shipment; the term does not apply to fire situations. Where there is a possibility of hazardous decomposition, an indication of the conditions and the nature of the hazard is given.

**5.4 Neutralizing Agents for Acids and Caustics** - In all cases involving accidental discharge, dilution with water may be followed by use of the agent specified, particularly if the material cannot be flushed away; the agent specified need not necessarily be used.

**5.5 Polymerization** - A few chemicals can undergo rapid polymerization to form sticky, resinous materials, with the liberation of much heat. The containers may explode. For these chemicals the conditions under which the reaction can occur are given. See Section 12.16 for quantitative data.

**5.6 Inhibitor of Polymerization** - The chemical names and concentrations of inhibitors added by the manufacturer to prevent polymerization are given.

## 6. WATER POLLUTION

**6.1 Aquatic Toxicity** - The form of data presentation used by the Environmental Protection Agency's "Oil and Hazardous Material-Technical Assistance Data System (OHM-TADS)" is used here. Reading from left to right and separated by slashes (/) are the following data:

Concentration in parts per million by weight (or milligrams per liter)  
at which the chemical was tested;  
Time of exposure in hours;  
Name of the aquatic species studied;  
Effect observed;  $LC_{50}$  means that approximately 50% of the fish will die under the conditions of concentrations and time given.  $TL_m$  (Median Tolerance Limit) means that approximately 50% of the fish will show abnormal behavior (including death) under the conditions of concentrations and time given; the term  $EC_{50}$  (Effective Concentration<sub>50</sub>) is used sometimes instead of  $TL_m$ ;  
The kind of water used in the test (fresh or salt)

Some chemicals have been tested with many species of fish. Where the data were available, the data sheet cites one illustrative test in fresh water and one in salt water.

**6.2 Waterfowl Toxicity** - Very little information is available. In a few cases there is entered the  $LD_{50}$  value, which indicates the dose (in milligrams per kilogram of body weight) that is lethal to about half the waterfowl tested.

**6.3 Biological Oxygen Demand (BOD)** - Also called "biochemical oxygen demand," this is a standard way of describing how much oxygen dissolved in water is consumed by biological oxidation of the chemical during the stated period of time. The unit lb/lb indicates the pounds of oxygen consumed by each pound of chemical during the time stated. When given in percent, the values indicate the pounds of oxygen consumed by each 100 pounds of chemical during the time stated. If the percentage is followed by "(theor.)," it indicates the

pounds of oxygen theoretically required to completely oxidize 100 pounds of the chemical.

**6.4 Food Chain Concentration Potential** - If the chemical is consumed by fish, marine plants, waterfowl, etc., that are in turn eaten by other species, the substance may accumulate and ultimately be consumed by humans. Where this occurs, an indication of the potential hazard and its significance is given.

**6.5 GESAMP Hazard Profile** – A composite list of hazard profiles evaluated by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP). A summary of the legends used in the profile follows.

**Bioaccumulation and Tainting**

- + Bioaccumulated to significant extent and known to produce a hazard to aquatic life or human health.
- Z Bioaccumulated with attendant risk to aquatic organisms or human health, however, with short retention of the order of one week or less.
- T Liable to produce tainting of seafood.
- O No evidence to support one of the above ratings (+, Z, T)

**Damage to Living Resources**

**96 hr LC<sub>50</sub>**

- |     |   |                        |
|-----|---|------------------------|
| 5   | Extremely toxic                         | less than 0.01 mg/l    |
| 4   | Highly toxic                            | less than 1 mg/l       |
| 3   | Moderately toxic                        | 1-10 mg/l              |
| 2   | Slightly toxic                          | 10-100 mg/l            |
| 1   | Practically nontoxic                    | 100-1000 mg/l          |
| 0   | Non-hazardous                           | greater than 1000 mg/l |
| D   | Substance likely to blanket the sea-bed |                        |
| BOD | Substance with oxygen demand            |                        |

**Hazard to Human Health by Oral Intake**

**LD<sub>50</sub>**

- |   |                           |                         |
|---|---------------------------|-------------------------|
| 4 | Highly hazardous          | less than 5 mg/kg       |
| 3 | Moderately hazardous      | 5-50 mg/kg              |
| 2 | Slightly hazardous        | 50-500 mg/kg            |
| 1 | Practically non-hazardous | 500-5000 mg/kg          |
| 0 | Non-hazardous             | greater than 5000 mg/kg |

**Hazard to Human Health by Skin and Eye Contact or Inhalation**

- II Hazardous (severe irritation, strong sensitizer, lung injury, percutaneous toxicity, carcinogenic, or other specific long-term

adverse health effect.

I Slightly hazardous (mild irritation, weak sensitizer)

0 Non-hazardous (non-irritant, not a sensitizer)

#### **Reduction of Amenities**

XXX Highly objectionable because of persistency, smell or poisonous or irritant characteristics; as a result contaminated beaches liable to be closed; also used when there is clear evidence that the substance is a human carcinogen or that the substance has the potential to produce other serious specific long-term adverse health effects in humans.

XX Moderately objectionable because of the above characteristics, but short-term effects leading only to temporary interference with use of beaches; also used when there is credible scientific evidence that the substance is an animal carcinogen but where there is no clear evidence to indicate that the material has caused cancer in humans, or when there is evidence from laboratory studies that the substance could have the potential to produce other serious specific long-term adverse health effects.

X Slightly objectionable, non-interference with use of beaches.

0 No problem.

Ratings in brackets, ( ), indicate insufficient data available to the GESAMP experts on specific substances, hence extrapolation was required.

N – Not applicable (e.g. if gases)

— Indicates data were not available to the GESAMP Working Group.

## **7. SHIPPING INFORMATION**

**7.1 Grades or Purity** - The grades USP (United States Pharmacopoeia) and CP (chemically pure) are quite pure. Where “Technical” or “Commercial” grades are given, the percent by weight of the pure chemical present is usually indicated. In a few cases the identity of the major impurities is given. If the properties of the less pure grades differ significantly from those of the pure substance, the differences in properties are described in general terms.

**7.2 Storage Temperature** - The range of temperatures at which the chemical is normally shipped in bulk by water transport is given. “Ambient” means the temperature of the surroundings.

**7.3 Inert Atmosphere** - The terms used are “inerted,” “padded,” “ventilated (forced),” “ventilated (natural),” and “no requirement.” They are given when found in the Code of Federal Regulations, Title 46, beginning in Part 151.05.

**7.4 Venting** - The terms used are “open,” “pressure-vacuum,” and “safety relief” (same source as 9.3 above).

**7.5 IMO Pollution Category** – pollution classification applied to this compound by the International Maritime Organization.

**7.6 Ship Type** – The data entry refers to construction and containment requirements for ships being used to transport the chemical in question. The information is taken from the Code of Federal Regulations, Title 46, Part 154.

**7.7 Barge Hull Type** – The data entry refers to structural requirements for barge hulls being used to transport the chemical in question. The information is taken from the Code of Federal Regulations, Title 46, part 151.

## **8. HAZARD CLASSIFICATIONS**

**8.1 49 CFR Category** - This is the hazard category specified in the Hazardous Materials Table, Part 172.101, Title 49 of the Code of Federal Regulations. The October 1, 1996 edition was used to prepare this version of the CHRIS.

**8.2 49 CFR Class** – The hazard class as specified in the Hazardous Materials Table, Title 49, Part 172.101 of the Code of Federal Regulations. The October 1, 1996 edition was used to prepare this version of the CHRIS.

**8.3 49 CFR Package Group** – The packaging group assigned to this chemical in the Hazardous Materials Table, Title 49, Part 172.101 of the Code of Federal Regulations. The October 1, 1996 edition was used to prepare this version of the CHRIS. Note that the packaging group is often dependent upon toxicity or flash point of the chemical. In those cases the reported packaging group is based upon the data value reported in CHRIS for that specific compound. The packaging group could be different if the purity of the material varies from that reported in CHRIS.

**8.4 Marine Pollutant** – This is a “Yes” or “No” entry, depending upon whether the chemical is listed in “List of Marine Pollutants”, Appendix B to Part 172.101, Title 49 of the Code of Federal Regulations.

**8.5 NFPA Hazard Classifications** - The indicated ratings are given in “Fire Protection Guide on Hazardous Materials,” 7th ed., National Fire Protection Association, Boston, Mass., 1978. The classifications are defined in Table 1 below. The symbol used in conjunction with these ratings is illustrated in Section 4.2.

**8.6 EPA Reportable Quantity** – The minimum quantity, in pounds, that must be reported to EPA in the event of a spill. This value is taken from “A List of Hazardous Substances and Reportable Quantities”, Appendix A to Part 172.101, Title 49 of the Code of Federal Regulations.

**8.7 EPA Pollution Category** – An alphabetic descriptor identifying the potential pollution impact of the chemical. This descriptor is based upon the reportable quantity from category 8.6 above.



**8.8 RCRA Waste Number** – The 4 character identification number assigned to this chemical, if it is a waste, under the Resources Conservation and Recovery Act. This waste number was reported if the chemical is specifically listed.

**8.9 EPA FWPCA List** – A “Yes” or “No” entry depending upon whether the chemical is listed in the Federal Water Pollution Control Act.

**TABLE 1  
EXPLANATION OF NFPA HAZARD CLASSIFICATIONS**

<b>Health Hazard (blue)</b>	<b>Definition</b>
4	Materials which on very short exposure could cause death or major residual injury even though prompt medical treatment were given
3	Materials which on short exposure could cause serious temporary or residual injury even though prompt medical treatment were given.
2	Materials which on intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical treatment is given.
1	Materials which on exposure would cause irritation but only minor residual injury even if no treatment is given.
0	Materials which on exposure under fire conditions would offer no hazard beyond that of ordinary combustible material.
<b>Flammability (red)</b>	
4	Materials which will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature, or which are readily dispersed in air and which will burn readily.
3	Liquids and solids that can be ignited under almost all ambient temperature conditions
2	Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.
1	Materials that must be preheated before ignition can occur.
0	Materials that will not burn.
<b>Reactivity (yellow)</b>	
4	Materials which in themselves are readily capable of detonation or explosive decomposition or reaction at normal temperatures and pressures.
3	Materials which in themselves are capable of detonation or explosive reaction but require a strong initiating source or which must be heated under confinement before initiation or which react explosively with water.
2	Materials which in themselves are normally unstable and readily undergo violent chemical change but do not detonate. Also materials which may react violently with water or which may form potentially explosive mixtures with water.
1	Materials which in themselves are normally stable, but which can become unstable at elevated temperatures and pressures or which may react with water with some release of energy but not violently.
0	Materials which in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.
<b>Other (white)</b>	
W	Materials which react so violently with water that a possible hazard results when they come in contact with water, as in a fire situation. Similar to Reactivity Classification 2.
Oxy	Oxidizing material; any solid or liquid that readily yields oxygen or other oxidizing gas, or that readily reacts to oxidize combustible materials.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Physical State at 15°C and 1 atm** - The statement indicates whether the chemical is a solid, liquid, or gas after it has reached equilibrium with its surroundings at “ordinary” conditions of temperature and pressure.

**9.2 Molecular Weight** - The value given is the weight of a molecule of the chemical relative to a value of 12 for one atom of carbon.

The molecular weight is useful in converting from molecular units to weight units and in calculating the pressure, volume and temperature relationships for gaseous materials. The ratio of the densities of any two gases is approximately equal to the ratio of their molecular weights (see 9.10).

The molecular weights of mixtures can be calculated if both the identity and quantity of each component of the mixture are known. Because the composition of mixtures described in this manual is not known exactly, or because it varies from one shipment to another, no molecular weights are given for such mixtures.

**9.3 Boiling Point at 1 atm** - The value is the temperature of a liquid when its vapor pressure is 1 atm. For example, when water is heated to 100°C (212°F) its vapor pressure rises to 1 atm and the liquid boils.

The boiling point at 1 atm indicates whether a liquid will boil and become a gas at any particular temperature and sea-level atmospheric pressure.

**9.4 Freezing Point** - The freezing point is the temperature at which a liquid changes to a solid. For example, liquid water changes to solid ice at 0°C (32°F). Some liquids solidify very slowly even when cooled below their freezing point. When liquids are not pure (for example, salt water) their freezing points are lowered slightly.

**9.5 Critical Temperature** - The maximum temperature at which a liquid can exist, no matter what the pressure on it, is called the critical temperature. For example, the critical temperature of water is 372°C (705°F). The value can be used to estimate many properties whose values are not immediately available.

**9.6 Critical Pressure** - The vapor pressure of a chemical at the critical temperature (see 9.5) is called the critical pressure. For example, the critical pressure of water is 218 atm. Values are given in pounds per square inch absolute, atmospheres, and meganewtons per square meter. The value can be used for estimating many property values that are not immediately available.

**9.7 Specific Gravity** - The specific gravity of a chemical is the ratio of the weight of the solid or liquid to the weight of an equal volume of water at 4°C (or at some other specified temperature).

If the specific gravity is less than 1.0 (or less than 1.03 in seawater) the chemical will float; if higher, it will sink. Where the change in the value with temperature is important, more data are found in 9.20.

**9.8 Liquid Surface Tension** - This property is a measure of the tensile force at the surface of a liquid that tends to shape liquid fragments into spherical drops. Values are expressed in dynes per centimeter and newtons per meter. Liquids with high surface tensions show less tendency to spread. Water has a surface tension of about 73 dynes/cm; seawater has a slightly higher value.

**9.9 Liquid-Water Interfacial Tension** - The value is a measure of the tensile forces existing at the interface between a liquid and water. Approximately, it is the difference between the individual surface tension of the liquid and that of water. Low values of the interfacial tension indicate that the chemical spreads readily on a water surface. The units are the same as in 9.8.

**9.10 Vapor (Gas) Specific Gravity** - The value is the ratio of the weight of vapor to the weight of an equal volume of dry air at the same conditions of temperature and pressure. Buoyant vapors have a vapor specific gravity less than one. The value may be approximated by the ratio  $M/29$ , where  $M$  is the molecular weight of the chemical (see 9.2).

In some cases the vapor may be at a temperature different from that of the surrounding air. For example, the vapor from a container of boiling methane at  $-172^{\circ}\text{F}$  sinks in warm air, even though the vapor specific gravity of methane at  $60^{\circ}\text{F}$  is about 0.6.

For the effect of temperature on vapor density, see 9.26.

**9.11 Ratio of Specific Heats of Vapor (Gas)** - This property is the ratio of the specific heat at constant pressure ( $C_p$ ) to the specific heat at constant volume ( $C_v$ ); its value is always greater than one. In most cases it was calculated by use of the expression:

$$\frac{C_p}{C_v} = \frac{C_p}{(C_p - R)}$$

where  $R$  is the Universal Gas Constant.

The ratio varies slightly with temperature; the value given is at  $20^{\circ}\text{C}$  ( $68^{\circ}\text{F}$ ). The ratio is often of value in estimating temperature changes when gases are compressed or expanded. Higher values of the ratio lead to larger temperature changes for a given pressure change.

**9.12 Latent Heat of Vaporization** - The value is the heat that must be added to the specified weight of a liquid before it can change to vapor (gas). It varies with temperature; the value given is that at the boiling point at 1 atm (see 9.3). The units used are Btu per pound, calories per gram, and joules per kilogram.

No value is given for chemicals with very high boiling points at 1 atm, because such substances are considered essentially nonvolatile.

**9.13 Heat of Combustion** - The value is the amount of heat liberated when the specified weight is burned in oxygen at 25°C. The products of combustion, including water, are assumed to remain as gases; the value given is usually referred to as the “lower heat value.” The negative sign before the value indicates that heat is given off when the chemical burns. Units are the same as in 9.12.

**9.14 Heat of Decomposition** - The value is the amount of heat liberated when the specified weight decomposes to more stable substances. The value is given for very few chemicals, because most are stable and do not decompose under the conditions of temperature and pressure encountered during shipment. The negative sign before the value simply indicates that heat is given off during the decomposition. The value does not include heat given off when the chemical burns. Units are the same as in 9.12.

**9.15 Heat of Solution** - The value represents the heat liberated when the specified weight of chemical is dissolved in a relatively large amount of water at 25°C (“infinite dilution”). A negative sign before the value indicates that heat is given off, causing a rise in temperature. (A few chemicals absorb heat when they dissolve, causing the temperature to fall.) Units are the same as in 9.12.

In those few cases where the chemical reacts with water and the reaction products dissolve, the heat given off during the reaction is included in the heat of solution.

**9.16 Heat of Polymerization** - The value is the heat liberated when the specified weight of the compound (usually called the monomer) polymerizes to form the polymer. In some cases the heat liberated is so great that the temperature rises significantly, and the material may burst its container or catch fire. The negative sign before the value indicates that heat is given off during the polymerization reaction. Units are the same as in 9.12.

**9.17 Heat of Fusion** - The value is the number of Btu needed to change one pound of solid to liquid with no change in temperature.

**9.18 Limiting Value** - A chemical specific concentration in water in mole fraction units below which the contribution to the evolution of toxic or flammable vapor at the water surface can be assumed to be negligible.

**9.19 Reid Vapor Pressure** - The value is the equilibrium pressure exerted by vapor over the liquid at 100°F., expressed as pounds per square inch absolute, as defined in 46 CFR 30.10-59.

Items 9.20 through 12.27 consist of tables. The temperature is given in one column followed by the appropriate data value in the next column.

**9.20 Saturated Liquid Density** - The value is the weight (in pounds) of one cubic foot of liquid that is in equilibrium with its vapor. Liquid densities decrease slightly with an increase in temperature; where literature data or reliable estimation methods were applicable, a table shows this effect.

**9.21 Liquid Heat Capacity** - The value is the heat (in Btu) required to raise the temperature of one pound of the liquid one degree Fahrenheit at constant pressure. For example, it requires almost 1 Btu to raise the temperature of 1 pound of water from 68°F to 69°F. The value is useful in calculating the increase in temperature of a liquid when it is heated, as in a fire. The value increases slightly with an increase in temperature; the table shows this effect.

**9.22 Liquid Thermal Conductivity** - The value is a measure of the ability of a liquid to conduct heat. It represents the number of Btu per hour that pass through an area of liquid one square foot in cross-section when the temperature gradient is 1°F per inch of depth. Higher values indicate that the liquid conducts heat more readily.

Liquid thermal conductivities decrease slightly with an increase in temperature. Where applicable, the table shows this effect.

A basic law of heat conduction states that the energy flow per unit area per unit time is proportional to the gradient in temperature. The constant of proportionality is the liquid thermal conductivity.

**9.23 Liquid Viscosity** - The value (in centipoise) is a measure of the ability of a liquid to flow through a pipe or hole; higher values indicate that the liquid flows less readily under a fixed pressure head. For example, heavy oils have higher viscosities (i.e., are more viscous) than gasoline.

Liquid viscosities decrease rapidly with an increase in temperature. In some cases a table is given to show the effect. In other cases only a single data point was found in the literature.

A basic law of fluid mechanics states that, for most fluids, the force per unit area needed to shear a fluid is proportional to the velocity gradient. The constant of proportionality is the viscosity.

**9.24 Solubility in Water** - The value represents the pounds of a chemical that will dissolve in 100 pounds of pure water. Solubility usually increases when the temperature increases; where the change has been measured, a table is given to show the effect. The following terms are used when numerical data are either unavailable or not applicable:

The term "Miscible" means that the chemical mixes with water in all proportions. The term "Reacts" means that the substance reacts chemically with water; thus, its solubility has no real meaning. "Insoluble" usually means that very little of the chemical dissolves in 100 pounds of water. (Weak solutions of "Insoluble" materials may still be hazardous to humans, fish, and waterfowl, however.)

**9.25 Saturated Vapor Pressure** - The value is the pressure (in pounds per square inch absolute) of the vapor in equilibrium with the liquid form at the specified temperature. Vapor pressure values can be used to estimate the relative volatility of chemicals at a given temperature, and to calculate the pressure over a liquid that is shipped in a closed container.

The vapor pressure increases as temperature increases; a table is given to show this effect. Note that the vapor pressure scale is logarithmic.

**9.26 Saturated Vapor Density** - The value is the weight (in pounds) of one cubic foot of vapor that is in equilibrium with the liquid form.

If it is assumed that the vapor behaves as an ideal gas, the relation  $pM/RT$  holds, where  $p$  is the vapor pressure,  $M$  is the molecular weight,  $R$  is the gas constant, and  $T$  is the temperature (in absolute units).

Since the vapor pressure varies with temperature (see 9.25), the saturated vapor density also varies with temperature, as shown on the table.

**9.27 Ideal Gas Heat Capacity** - The value is the number of Btu needed to raise the temperature of one pound of gas by 1° Fahrenheit. The property can be used only when the pressure of the gas is less than about 10 atm. The ideal gas heat capacity is not a function of pressure (below about 10 atm), but it does increase with temperature, and a table is given to show the effect.

## 4. OTHER INFORMATION SYSTEMS

### 4.1 CHEMICAL TRANSPORTATION EMERGENCY CENTER (CHEMTREC)

The Manufacturing Chemists Association operates CHEMTREC 24 hours a day. By calling the appropriate toll-free number listed below, one can consult experts on chemicals and spill response.

Continental United States, Alaska, Hawaii, and Canada .....	800-424-9300
District of Columbia .....	202-483-7616

### 4.2 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

The NFPA's "Recommended System for the Identification of the Fire Hazards of Materials" (NFPA No. 704M) provides basic warning information to fire fighter in industrial plants and storage facilities. This system uses a diamond-shaped warning symbol. The top, left, and right boxes refer to flammability, health, and reactivity hazards respectively and contain a number from 0 to 4. The exact meaning of each number is explained in Section 3 (para 12.3) of this manual, and the applicable number for each chemical are listed in Section 11 under "NFPA Hazard Classifications." The bottom box is used for special hazards; the most common of these is a warning against the use of water, indicated by the symbol W.

### 4.3 INTERNATIONAL MARITIME ORGANIZATION (IMO)

Foreign vessels using U.S. waterways generally utilize, in addition to U.S. requirements, an international labeling system developed by IMO. This system consists of 15 diamond-shaped labels. Each identifies a particular hazard by a descriptive picture, a word, and a distinctive color.

The number at the bottom of each diamond identifies the class to which IMO has assigned the chemical and is the same as the first digit in the IMO/UN numerical designation, one of the items given under "Chemical Designations" in Section 11 of this manual.

### 4.4 DEPARTMENT OF TRANSPORTATION (DOT)

The "1996 North American Emergency Response Guidebook" was developed by DOT as a guide for initial actions to be taken when handling incidents involving hazardous materials. The guidebook identifies the most significant potential hazards and gives information and guidance for initial actions to be taken based upon the material involved. Information can be located in the guidebook based upon chemical name or DOT Identification Number.



#### **4.5 OHM-TADS (EPA)**

The Oil and Hazardous Materials Technical Assistance Data System (OHM-TADS) has been developed by the Environmental Protection Agency (EPA) to provide information on physical and chemical properties, hazards, pollution characteristics, and shipping information for over 1200 hazardous materials. OHM-TADS consists of a computerized data base which can be accessed from terminals at the 10 EPA Regional Offices, from EPA Headquarters in Washington, D.C., and from Coast Guard Marine Safety Offices. The System can provide either information on specifically requested properties for a material, or it can print all the information in its files for that material.

Some of the same information appears in both this manual and OHM-TADS, but each contains some information not found in the other.

#### **4.6 POISON CONTROL CENTERS**

Throughout the country, local Poison Control Centers are maintained at hospitals. These Centers can provide information on the chemical composition, appearance, and toxicity of common poisonous materials as well as information on the symptoms of exposure and on the emergency procedures recommended in the event of exposure. The information available at these centers deals mainly with common household materials.

Poison Control Centers are coordinated through the Department of Health and Human Services in Washington, D.C., but information should be requested through the local centers.

The telephone number of the local Poison Control Center can be found in a local telephone directory.

#### **4.7 ASSOCIATION OF AMERICAN RAILROADS (AAR)**

The AAR has developed emergency action guides for 134 various commodities. The guides are contained in a single binder and provide technical information as well as response guidance.

## 5. CONVERSION FACTORS

To Convert	To	Multiply by
<b>Length</b>		
inches	millimeters	25.4
inches	feet	0.0833
feet	inches	12*
feet	meters	0.3048
feet	yards	0.3333
feet	miles (U.S. statute)	0.0001894
yards	yards	3*
yards	miles (U.S. statute)	0.0005682
miles (U.S. statute)	feet	5280*
miles (U.S. statute)	yards	1760*
miles (U.S. statute)	meters	1609
miles (U.S. statute)	nautical miles	0.868
meters	feet	3.281
meters	yards	1.094
meters	miles (U.S. statute)	0.0006214
nautical miles	miles (U.S. statute)	1.152
<b>Area</b>		
square inches	square centimeters	6.452
square inches	square feet	0.006944
square feet	square inches	144*
square feet	square meters	0.09290
square meters	square feet	10.76
square miles	square yards	3,097,600*
square yards	square feet	9*
<b>Volume</b>		
cubic inches	cubic centimeters	16.39
cubic inches	cubic feet	0.0005787
cubic feet	cubic inches	1728*
cubic feet	cubic meters	0.02832
cubic feet	U.S. gallons	7.481
cubic meters	cubic feet	35.31
liters	quarts (U.S. liquid)	1.057
quarts (U.S. liquid)	liters	0.9463
U.S. gallons	barrels (petroleum)	0.02381
U.S. gallons	cubic feet	0.1337
U.S. gallons	Imperial gallons	0.8327
barrels (petroleum)	U.S. gallons	42*
Imperial gallons	U.S. gallons	1.201
milliliters	cubic centimeters	1*

\* Exact value

**Time**

seconds	minutes	0.01667
seconds	hours	0.0002778
seconds	days	0.00001157
minutes	seconds	60*
minutes	hours	0.01667
minutes	days	0.0006944
hours	seconds	3600*
hours	minutes	60*
hours	days	0.04167

**Mass or Weight**

pounds	kilograms	0.4536
pounds	short tons	0.0005*
pounds	long tons	0.0004464
pounds	metric tons	0.0004536
tons (short)	pounds	2000*
tons (metric)	pounds	2205
tons (long)	pounds	2240*
kilograms	pounds	2.205
tonnes (metric tons)	kilograms	1000*

**Energy**

calories	Btu	0.003968
calories	joules	4.187
Btu (British Thermal Units)	calories	252.0
Btu	joules	1055
joules	calories	0.2388
joules	Btu	0.0009479

**Velocity**

feet per second	meters per second	0.3048
feet per second	miles per hour	0.6818
feet per second	knots	0.5921
meters per second	feet per second	3.281
meters per second	miles per hour	2.237
miles per hour	meters per second	0.4470
miles per hour	feet per second	1.467
knots	meters per second	0.5148
knots	miles per hour	1.151
knots	feet per second	1.689

**Density**

pounds per cubic foot	grams per cubic centimeter	0.01602
grams per cubic centimeter	pounds per cubic foot	62.42
grams per cubic centimeter	kilograms per cubic meter	1000*
kilograms per cubic meter	grams per cubic centimeter	0.001*

\* Exact value

**Pressure**

pounds per square inch absolute (psia)	kilonewtons per square meter (kN/m <sup>2</sup> )	6.895
psia	atmospheres	0.0680
psia	inches of water	27.67
psia	millimeters of mercury (torr)	51.72
pounds per square inch gauge (psig)	psia	add 14.70
millimeters of mercury (torr)	psia	0.01934
millimeters of mercury (torr)	kN/m <sup>2</sup>	0.1333
inches of water	psia	0.03614
kilograms per square centimeter	millimeters of mercury (torr)	735.6
inches of water	kN/m <sup>2</sup>	0.2491
kilograms per square centimeter	atmospheres	0.9678
atmospheres	kN/m <sup>2</sup>	101.3
kilograms per square centimeter	psia	14.22
atmospheres	psia	14.70
bars	kN/m <sup>2</sup>	100*
kilonewtons per square meter	psia	0.1450
bars	atmospheres	0.9869
kilonewtons per square meter	atmospheres	0.009869
bars	kilograms per square centimeter	1.020

**Viscosity**

centipoises	pounds per foot per second	0.0006720
pounds per foot per second	centipoises	1488
centipoises	poises	0.01*
centipoises	newton seconds per square meter	0.001*
poises	grams per centimeter per second	1*
grams per centimeter per second	poises	1*
newton seconds per square meter	centipoises	1000*

**Thermal Conductivity**

Btu per hour per foot per °F	watts per meter-kelvin	1.731
Btu per hour per foot per °F	kilocalories per hour per meter per °C	1.488
watts per meter-kelvin	Btu per hour per foot per °F	0.5778
kilocalories per hour per meter per °C	watts per meter-kelvin	1.163
kilocalories per hour per meter per °C	Btu per hour per foot per °F	0.6720

**Heat Capacity**

Btu per pound per °F	calories per gram per °C	1*
Btu per pound per °F	joules per kilogram-kelvin	4187
joules per kilogram-kelvin	Btu per pound per °F	0.0002388
calories per gram per °C	Btu per pound per °F	1*

**Concentration (in water solution)**

parts per million (ppm)	milligrams per liter	1*
milligrams per liter	ppm	1*
milligrams per cubic meter	grams per cubic centimeter	1 X 10 <sup>-9</sup>
grams per cubic centimeter	milligrams per cubic meter	1 X 10 <sup>9</sup>
grams per cubic centimeter	pounds per cubic foot	62.42
pounds per cubic foot	grams per cubic centimeter	0.01602

\* Exact value

**Temperature**

degrees Kelvin ( $^{\circ}\text{K}$ )	degrees Rankine ( $^{\circ}\text{R}$ )	1.8*
degrees Rankine ( $^{\circ}\text{R}$ )	degrees Kelvin ( $^{\circ}\text{K}$ )	0.5556
degrees centigrade ( $^{\circ}\text{C}$ )	degrees Fahrenheit ( $^{\circ}\text{F}$ )	first multiply by 1.8, then add 32
degrees Fahrenheit ( $^{\circ}\text{F}$ )	degrees centigrade ( $^{\circ}\text{C}$ )	first subtract 32, then multiply by 0.5556
degrees centigrade ( $^{\circ}\text{C}$ )	degrees Kelvin ( $^{\circ}\text{K}$ )	add 273.2
degrees Fahrenheit ( $^{\circ}\text{F}$ )	degrees Rankine ( $^{\circ}\text{R}$ )	add 459.7

**Flow**

cubic feet per second	U.S. gallons per minute	448.9
U.S. gallons per minute	cubic feet per second	0.002228

**Universal Gas Constant (R)**

8.314 joules per gram mole-Kelvin  
 1.987 calories per gram mole-Kelvin  
 1.987 Btu per pound mole per  $^{\circ}\text{F}$   
 10.73 psia-cubic feet per pound mole per  
 $^{\circ}\text{F}$   
 82.057 atm-cubic centimeters per gram  
 mole-Kelvin  
 62.361 millimeters mercury liter per gram  
 mole-Kelvin

\* Exact value

## 6. SELECTED PROPERTIES OF FRESH WATER, SEA WATER, ICE AND AIR

The following properties are useful for engineering calculations described in the Hazard Assessment Handbook. The values for fresh water are those recorded for pure water. The values for the water of lakes and streams differ somewhat from those of pure water, but since no "standard" fresh water has ever been defined, the values for pure water must be used.

A "standard" sea water has been defined as one containing 35 grams of salts per kilogram of solution. The values for the water of tidal estuaries differ somewhat from those of "standard" sea water because the water has a salinity somewhere between those of fresh and sea waters.

The value for the density of air was derived from the ideal gas law; the air is assumed to be dry and at 1 atmosphere pressure.

### 6.1 FREEZING POINT

Fresh Water	0°C	32°F
Sea Water	-1.91°C	28.6°F

### 6.2 LATENT HEAT OF FUSION OF ICE

$$79.6 \text{ cal/g} = 143.3 \text{ Btu/lb}$$

6.3 DENSITY (See Table 6.1)

6.4 VISCOSITY (See Table 6.1)

6.5 HEAT CAPACITY (See Table 6.1)

6.6 THERMAL CONDUCTIVITY (See Table 6.1)

6.7 VAPOR PRESSURE (See Table 6.1)

**TABLE 6.1**

DENSITY OF FRESH WATER		DENSITY OF SEA WATER		DENSITY OF ICE		DENSITY OF DRY AIR (1 atm.)	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	Pounds per cubic foot
32	62.410	30	64.250	-50	57.670	-10	0.088
40	62.418	40	64.200	-40	57.625	0	0.086
50	62.401	50	64.170	-30	57.600	10	0.085
60	62.358	60	64.100	-20	57.582	20	0.083
70	62.293	70	64.020	-10	57.541	30	0.081
80	62.208	80	63.950	0	57.105	40	0.079
90	62.105	90	63.800	10	57.490	50	0.078
100	61.986	100	63.700	20	57.455	60	0.076
110	61.852			30	57.410	70	0.075
120	61.704					80	0.074
						90	0.072
						100	0.071
						110	0.070
						120	0.068

VISCOSITY OF FRESH WATER		VISCOSITY OF SEA WATER		HEAT CAPACITY OF FRESH WATER		HEAT CAPACITY OF SEA WATER	
Temperature (degrees F)	Centipoise	Temperature (degrees F)	Centipoise	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit per pound-F
32	1.770	30	1.880	32	1.007	30	0.936
40	1.540	40	1.610	40	1.004	40	0.935
50	1.304	50	1.400	50	1.001	50	0.934
60	1.122	60	1.210	60	1.000	60	0.932
70	0.974	70	1.060	70	0.999	70	0.931
80	0.858	80	0.920	80	0.998	80	0.930
90	0.763	90	0.815	90	0.998	90	0.928
100	0.682	100	0.730	100	0.998	100	0.927
110	0.616			110	0.998		
120	0.558			120	0.998		

**TABLE 6.1 (Continued)**

HEAT CAPACITY OF ICE		THERMAL CONDUCTIVITY OF FRESH WATER		THERMAL CONDUCTIVITY OF SEA WATER		THERMAL CONDUCTIVITY OF ICE	
Temperature (degrees F)	British thermal units per pound-F	Temperature (degrees F)	British thermal unit-inch per hour square foot-F	Temperature (degrees F)	British thermal unit-inch per hour square foot-F	Temperature (degrees F)	British thermal unit-inch per hour square foot-F
-50	0.400	32	3.932	30	3.890	-50	18.754
-40	0.413	40	3.979	40	3.950	-40	18.347
-30	0.426	50	4.037	50	4.010	-30	17.939
-20	0.438	60	4.096	60	4.070	-20	17.531
-10	0.451	70	4.154	70	4.130	-10	17.123
0	0.464	80	4.212	80	4.190	0	16.715
10	0.476	90	4.271	90	4.250	10	16.308
20	0.489	100	4.329	100	4.310	20	15.900
30	0.502	110	4.387			30	15.492
		120	4.446				

SATURATED VAPOR PRESSURE OF FRESH WATER		SATURATED VAPOR PRESSURE OF SEA WATER		SATURATED VAPOR PRESSURE OF ICE	
Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per square inch
32	0.089	30	0.079	-50	0.001
40	0.122	40	0.115	-40	0.002
50	0.178	50	0.167	-30	0.003
60	0.256	60	0.242	-20	0.006
70	0.363	70	0.351	-10	0.011
80	0.507	80	0.509	0	0.019
90	0.698	90	0.700	10	0.031
100	0.950	100	0.950	20	0.051
				30	0.081



## 7. GUIDE TO COMPATIBILITY OF CHEMICALS

The Guide is based in part upon information provided to the Coast Guard by the National Academy of Sciences - U.S. Coast Guard Advisory Committee on Hazardous Materials and represents the latest information available to the Coast Guard on chemical compatibility.

The accidental mixing of one chemical cargo with another can in some cases be expected to result in a vigorous and hazardous chemical reaction. The generation of toxic gases, the heating, overflow, and rupture of cargo tanks, and fire and explosion are possible consequences of such reactions.

The purpose of the Compatibility Chart is to show chemical combinations believed to be dangerously reactive in the case of accidental mixing. It should be recognized, however, that the Chart provides a broad grouping of chemicals with an extensive variety of possible binary combinations. Although one group, generally speaking, can be considered dangerously reactive with another group where an "X" appears on the Chart, there may exist between the groups some combinations which would not dangerously react. The Chart should therefore not be used as an infallible guide. It is offered as an aid in the safe loading of bulk chemical cargoes, with the recommendation that proper safeguards be taken to avoid accidental mixing of binary mixtures for which an "X" appears on the Chart. Proper safeguards would include consideration of such factors as avoidance of the use of common cargo and vent lines and carriage in adjacent tanks having a common bulkhead.

The following procedure explains how the Guide should be used in determining compatibility information:

- (1) Determine the reactivity group of a particular product by referring to the alphabetical list in Table 7.1.
- (1) Enter the Chart with the reactivity group. Proceed across the page. An "X" indicates a reactivity group that forms an unsafe combination with the product in question.

For example, crotonaldehyde is listed in Table 7.1 as belonging in Group 19 (Aldehydes) and also has a notation, (2), which is explained in the footnotes to Table 7.1. The Compatibility Chart shows that chemicals in group 19 should be segregated from sulfuric and nitric acids, caustics, ammonia, and all types of amines (aliphatic, alkanol, and aromatic). Footnote (2), refers the user to Table 7.3 where exceptions to the Compatibility Chart are listed. Here, crotonaldehyde is listed as also being incompatible with Group 1, non-oxidizing acids.

It is recognized that there are wide variations in the reaction rates of individual chemicals within the broad groupings shown reactive by the Compatibility Chart. Some individual materials in one group will react violently with some of the materials in another group and cause great hazard; others will react slowly, or not at all. Accordingly, a useful addition to the Guide would be the identification of specific materials which might not follow the characteristic reactivities of the rest of the materials in its Group. A few such combinations are listed in Table 7.3; as other exceptions to the Chart become known, they will be listed in subsequent revisions of this manual.

**FIGURE 1 – COMPATIBILITY CHART**  
[X indicates incompatible groups]

CARGO GROUPS	REACTIVE GROUPS																						
	1. NON-OXIDIZING MINERAL ACIDS	2. SULFURIC ACID	3. NITRIC ACID	4. ORGANIC ACIDS	5. CAUSTICS	6. AMMONIA	7. ALIPHATIC AMINES	8. ALKANOLAMINES	9. AROMATIC AMINES	10. AMIDES	11. ORGANIC ANHYDRIDES	12. ISOCYANATES	13. VINYL ACETATE	14. ACRYLATES	15. SUBSTITUTED ALLYLS	16. ALKYLENE OXIDES	17. EPICHLOROHYDRINS	18. KETONES	19. ALDEHYDES	20. ALCOHOLS, GLYCOLS	21. PHENOLS, CRESOLS	22. CAPROLACTAM SOLUTION	
1. NON-OXIDIZING MINERAL ACIDS		X			X	X	X	X	X	X	X	X	X										1
2. SULFURIC ACID	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
3. NITRIC ACID		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3
4. ORGANIC ACIDS		X			X	X	X	X				X				X	X						4
5. CAUSTICS	X	X	X	X							X	X	X			X	X		X	X	X	X	5
6. AMMONIA	X	X	X	X						X	X	X	X			X	X		X	X	X	X	6
7. ALIPHATIC AMINES	X	X	X	X							X	X	X	X	X	X	X	X	X	X	X	X	7
8. ALKANOLAMINES	X	X	X	X							X	X	X	X	X	X	X		X				8
9. AROMATIC AMINES	X	X	X								X	X							X				9
10. AMIDES	X	X	X			X						X									X		10
11. ORGANIC ANHYDRIDES	X	X	X		X	X	X	X	X													X	11
12. ISOCYANATES	X	X	X	X	X	X	X	X	X	X											X		12
13. VINYL ACETATE	X	X	X			X	X	X															13
14. ACRYLATES		X	X				X	X															14
15. SUBSTITUTED ALLYLS		X	X				X	X															15
16. ALKYLENE OXIDES	X	X	X	X	X	X	X	X															16
17. EPICHLOROHYDRIN	X	X	X	X	X	X	X	X															17
18. KETONES		X	X				X	X															18
19. ALDEHYDES		X	X		X	X	X	X	X														19
20. ALCOHOLS, GLYCOLS		X	X		X		X					X											20
21. PHENOLS, CRESOLS		X	X		X		X			X													21
22. CAPROLACTAM SOLUTION		X			X		X				X												22
30. OLEFINS		X	X																				30
31. PARAFFINS																							31
32. AROMATIC HYDROCARBONS			X																				32
33. MISCELLANEOUS HYDROCARBON MIXTURES			X																				33
34. ESTERS		X	X																				34
35. VINYL HALIDES			X																			X	35
36. HALOGENATED HYDROCARBONS																							36
37. NITRILES		X																					37
38. CARBON DISULFIDE							X	X															38
39. SULFOLANE																							39
40. GLYCOL ETHERS		X									X												40
41. ETHERS		X	X																				41
42. NITROCOMPOUNDS					X	X	X	X	X														42
43. MISCELLANEOUS WATER SOLUTIONS		X									X												43
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Acetaldehyde	19	AAD	
Acetic acid	<sup>2</sup> 4	AAC	
Acetic anhydride	11	ACA	
Acetone	<sup>2</sup> 18	ACT	
Acetone cyanohydrin	<sup>1,2</sup> 0	ACY	
Acetonitrile	37	ATN	
Acetophenone	18	ACP	
Acrolein	<sup>2</sup> 19	ARL	
Acrylamide solution	10	AAM	
Acrylic acid	<sup>2</sup> 4	ACR	
Acrylonitrile	<sup>2</sup> 15	CAN	
Acrylonitrile-Styrene copolymer dispersion in Polyether polyol	20	ALE	
Adiponitrile	37	AND	
Alachlor technical	33	ALH	
*Alcohols (C13+)	20	ALY	TDN/TTN/PDC/TFA
Alcoholic beverages	20		
*Alcohol polyethoxylates	20		APU/APV/APW (APK/APL)
Alcohol polyethoxylates, secondary	20		AEA/AEB
Alkanes (C6-C9)	31	ALK	HXS/HMX/OAX/NAX
n-Alkanes (C10+)	31		DCC/DOC/TRD/ALJ
iso- & cyclo-Alkanes (C10-C11)	31	AKI	
iso & cyclo-Alkanes (C12+)	31		
Alkane (C14-C17) sulfonic acid, sodium salt solution	34	AKA	
Alkanyl polyether (C9-C20)	41	AKP	
Alkenyl (C11+) amide	11	AKM	
Alkenylsuccinic anhydride	11	AAH	
Alkyl acrylate-Vinyl pyridine copolymer in Toluene	32	AAP	
Alkyl (C8+) amine, Alkenyl (C12+) acid ester mixture	34	AAA	
Alkyl (C3-C4) benzenes	32	AKC	PBY/BBE
Alkyl (C5-C8) benzenes	32	AKD	
*Alkyl (C9+) benzenes	32	AKB	DBZ/UDB/DDB/TRB /TDB
*Alkylbenzene, Alkylindane, Alkylindene mixture (each C12-C17)	32	AIH	
Alkylbenzenesulfonic acid	<sup>1,2</sup> 0	ABS	
Alkylbenzenesulfonic acid, sodium salt solutions	33	ABT	
Alkyldithiadiazole (C6-C24)	33	ADT	
Alkyl ester copolymer (C6-C18)	34	AES	
Alkyl (C7-C9) nitrates	<sup>2</sup> 34	AKN	ONE
Alkyl phenol sulfide (C8-C40)	<sup>34</sup>	AKS	
Alkyl phthalates	34		
Allyl alcohol	<sup>2</sup> 15	ALA	
Allyl chloride	15	ALC	
Aluminum chloride, Hydrochloric acid solution	0	AHS	
Aluminum sulfate solution	<sup>2</sup> 43	ASX	ALM
2-(2-Aminoethoxy)ethanol	8	AEX	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Aminoethyldiethanolamine, Aminoethylethanolamine solution	8		
Aminoethylethanolamine	8	AEE	
N-Aminoethylpiperazine	7	AEP	
2-Amino-2-hydroxymethyl-1,3-propanediol solution	43	AHL	
2-Amino-2-methyl-1-propanol	8	APR	
Ammonia, anhydrous	6	AMA	
Ammonia, aqueous, see Ammonium hydroxide	6		AMH
Ammonium bisulfite solution	<sup>2</sup> 43	ABX	ASU
*Ammonium hydrogen phosphate solution	0	AMI	
Ammonium hydroxide (28% or less ammonia)	6	AMH	
Ammonium nitrate solution	<sup>1</sup> 0	ANR	AMN
Ammonium nitrate, Urea solution (containing Ammonia)	6	UAS	
*Ammonium nitrate, Urea solution (not containing Ammonia)	43	ANU	UAT
*Ammonium polyphosphate solution	43	AMO	APP
Ammonium sulfate solution	43	AME	AMS
Ammonium sulfide solution	5	ASS	ASF
Ammonium thiocyanate, Ammonium thiosulfate solution	0	ACS	
Ammonium thiosulfate solution	43	ATV	ATF
Amyl acetate	34	AEC	IAT/AML/AAS/AYA
Amyl alcohol	20	AAI	IAA/AAN/ASE/APM
*Amylene, see Pentene	30	AMZ	PTX
*Amyl methyl ketone, see Methyl amyl ketone	18	AMK	MAK
Aniline	9	ANL	
Animal and Fish oils, n.o.s.	34	AFN	
Animal and Fish acid oils and distillates, n.o.s.	34	AFA	
Anthracene oil (Coal tar fraction), see Coal tar	33	AHO	COR
Apple juice	43		
Aryl polyolefin (C11-C50)	30	AYF	
Asphalt	33	ASP	ACU
Asphalt blending stocks, roofers flux	33	ARF	
Asphalt blending stocks, straight run residue	33	ASR	
Aviation alkylates	33	AVA	GAV
Barium long chain alkaryl sulfonate (C11-C50)	34	BCA	
Barium long chain alkyl (C8-C14) phenate sulfide	34	BCH	
Behenyl alcohol	20		
Benzene	32	BNZ	
Benzene hydrocarbon mixtures (having 10% Benzene or more)	32	BHB	
Benzenesulfonyl chloride	<sup>1,2</sup> 0	BSC	
Benzene, Toluene, Xylene mixtures	32	BTX	
Benzene tricarboxylic acid, trioctyl ester	34		
Benzylacetate	34	BZE	
Benzyl alcohol	21	BAL	
Benzyl chloride	36	BCL	
Brake fluid base mixtures	20	BFX	
Butadiene	30	BDI	
Butadiene, Butylene mixtures (cont. Acetylenes)	30	BBM	
Butane	31	BMX	IBT/BUT

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Butene, see Butylene	30		IBL/BTN
Butene oligomer	30	BOL	
Butyl acetate	34	BAX	IBA/BCN/BTA/BYA
Butyl acrylate	14	BAR	BAI/BTC
Butyl alcohol	<sup>2</sup> 20		IAL/BAN/BAS/BAT
Butylamine	7	BTY	IAM/BAM/BTL/BUA
Butylbenzene	32	BBE	
Butyl benzyl phthalate	34	BPH	
Butyl butyrate	34	BBA	BUB/BIB
Butylene	30	BTN	IBL
Butylene glycol	<sup>2</sup> 20	BUG	
Butylene oxide	16	BTO	
Butyl ether	41	BTE	
Butyl formate	34		BFI/BFN
Butyl heptyl ketone	18	BHK	
Butyl methacrylate	14	BMH	BMI/BMN
Butyl methacrylate, Decyl methacrylate, Cetyl-Eicosyl methacrylate mixture	14	DER	
Butyl phenol, Formaldehyde resin in Xylene	32		
n-Butyl propionate	34	BPN	
Butyl stearate	34		
Butyl toluene	32	BUE	
Butyraldehyde	19	BAE	BAD/BTR/BFA
Butyric acid	4	BRA	IBR
gamma-Butyrolactone	<sup>1,2</sup> 0	BLA	
Calcium alkyl (C9) phenol sulfide, polyolefin phosphorosulfide mixture	34	CPX	
Calcium bromide solution, see Drilling brines	43		DRB
Calcium bromide, Zinc bromide solution, see Drilling brine (containing zinc salts)	43		DZB
Calcium carbonate slurry	34		
Calcium chloride solution	43	CCS	CLC
Calcium hydroxide slurry	5	COH	
Calcium hypochlorite solutions	5		CHZ/CHU/CHY
Calcium long chain alkaryl sulfonate (C11-C50)	34	CAY	
Calcium long chain alkyl phenate (C8-C40)	34	CAN	
Calcium long chain alkyl phenate sulfide (C8-C40)	34	CPI	
Calcium long chain alkyl salicylate (C13+)	34	CAK	
Calcium long chain alkyl phenolic amine (C8-C40)	7		
Calcium nitrate, Magnesium nitrate, Potassium chloride solution	34		
Calcium sulfonate, Calcium carbonate, Hydrocarbon solvent mixture	33		
Camphor oil	18	CPO	
Caprolactam solution	22	CLS	
Carbolic oil	21	CBO	
Carbon disulfide	38	CBB	
Carbon tetrachloride	36	CBT	
Cashew nut shell oil (untreated)	4	OCN	
Caustic potash solution	<sup>2</sup> 5	CPS	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Caustic soda solution	25	CSS	
Cetyl-Eicosyl methacrylate mixture	14	CEM	
Cetyl-Stearyl alcohol	20		
Chlorinated paraffins (C10-C13)	36	CLH	
Chlorinated paraffins (C14 - C17)	36		
Chlorine	10	CLX	
Chloroacetic acid solution	4	CHM	CHL/MCA
Chlorobenzene	36	CRB	
Chlorodifluoromethane	36	MCF	
Chloroform	36	CRF	
Chlorohydrins	17	CHD	
4-Chloro-2-methylphenoxyacetic acid, Dimethylamine salt solution	9	CDM	
*Chloronitrobenzene	42	CNO	
Chloropropionic acid	4	CPM	CLA/CLP
Chlorosulfonic acid	10	CSA	
Chlorotoluene	36	CHI	CTM/CTO/CRN
Choline chloride solutions	20	CCO	
Citric acid	4	CIS	CIT
Clay slurry, see also Kaolin clay slurry	43		
Coal tar	33	COR	OCT
Coal tar pitch	33	CTP	
Cobalt naphthenate in solvent naphtha	34	CNS	
Coconut oil, fatty acid	34	CFA	
Corn syrup	43	CSY	
Cottonseed oil, fatty acid	34	CFY	
Creosote	21	CCT	CCW/CWD
Cresols	21	CRS	CRL/CSL/CSO
Cresylate spent caustic solution	05	CSC	
Cresylic acid	21	CRY	
Cresylic acid, dephenolized	21	CAD	
Cresylic acid, sodium salt solution, see Cresylate spent caustic	05		CSC
Cresylic acid tar	21	CRX	
Crotonaldehyde	19	CTA	
Cumene (isopropyl benzene), see Propylbenzene	32	CUM	PBY
1,5,9-Cyclododecatriene	30	CYT	
Cycloheptane	31	CYE	
Cyclohexane	31	CHX	
Cyclohexanol	20	CHN	
Cyclohexanone	18	CCH	
Cyclohexanone, cyclohexanol mixture	18	CYX	
Cyclohexyl acetate	34	CYC	
Cyclohexylamine	07	CHA	
*1,3-Cyclopentadiene dimer	30	CPD	DPT
Cyclopentane	31	CYP	
Cyclopentene	30	CPE	
Cymene	32	CMP	
Decahydronaphthalene	33	DHN	
Decaldehyde	19		IDA/DAL

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
*Decane, see n-Alkanes (C10+)	31	DCC	ALJ
Decanoic acid	04	DCO	
Decene	30	DCE	
Decyl acetate	34	DYA	
Decyl acrylate	14	DAT	IAI/DAR
Decyl alcohol	<sup>2</sup> 20	DAX	ISA/DAN
Decylbenzene	32	DBZ	AKB
Decyloxytetrahydro-thiophene dioxide	<sup>2</sup> 0	DHT	
Dextrose solution	43	DTS	
Diacetone alcohol	<sup>2</sup> 20	DAA	
Dialkyl(C10 - C14) benzenes	32	DAB	
Dialkyl(C7 - C13) phthalates	34	DAH	DHP/DIE/DOP/DIF /DTP/DUP/DID/DIN /DIO/EHE
Dibutyl amine	7	DBA	
Dibutyl hydrogen phosphonate	34	DHD	
Dibutyl phthalate	34	DPA	
Dichlorobenzene	36	DBX	DBM/DBO/DBP
Dichlorodifluoromethane	36	DCF	
1,1-Dichloroethane	36	DCH	
2,2'-Dichloroethyl ether	41	DEE	
1,6-Dichlorohexane	36	DHX	
2,2'-Dichloroisopropyl ether	36	DCI	
Dichloromethane	36	DCM	
2,4-Dichlorophenol	21	DCP	
2,4-Dichlorophenoxyacetic acid, Diethanolamine salt solution	43	DDE	
2,4-Dichlorophenoxyacetic acid, Dimethylamine salt solution	<sup>1,2</sup> 0	DAD	DDA/DSX
2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt solution	<sup>2</sup> 43	DTI	
Dichloropropane	36	DPX	DPB/DPP/DPC/DPL
1,3-Dichloropropene	15	DPS	DPU/DPF
Dichloropropene, dichloropropane mixture	15	DMX	
2,2-Dichloropropionic acid	4	DCN	
*Dicyclopentadiene, see 1,3-Cyclopentadiene dimer	30	DPT	CPD
Diethanolamine	08	DEA	
Diethanolamine salt of 2,4-Dichlorophenoxyacetic acid solution	43	DDE	
Diethylamine	07	DEN	
Diethylaminoethanol, see Diethylethanolamine	08	DAE	
2,6-Diethylaniline	09	DMN	
Diethylbenzene	32	DEB	
Diethylene glycol	<sup>2</sup> 40	DEG	
Diethylene glycol butyl ether, see Poly(2-8) alkalene glycol monoalkyl (C1-C6) ether	40	DME	PAG
Diethylene glycol butyl ether acetate, see Poly(2-8) alkylene glycol monoalkyl(C1-C6)	34	DEM	PAF
Diethylene glycol dibutyl ether	40	DIG	
Diethylene glycol diethyl ether	40		

**TABLE 7.1  
ALPHABETICAL LISTING OF COMPOUNDS**

<b>Chemical Name</b>	<b>Group No.</b>	<b>CHRIS Code</b>	<b>Related CHRIS codes</b>
Diethylene glycol ethyl ether, see Poly(2-8) alkylene glycol monoalkyl (C1-C6) ether	40	DGE	PAG
*Diethylene glycol ethyl ether acetate, see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether acetates	34	DGA	PAF
Diethylene glycol n-hexyl ether, see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether	40	DHE	PAG
*Diethylene glycol methyl ether, see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether	40	DGM	PAG
Diethylene glycol methyl ether acetate, see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether acetate	34	DGR	PAF
Diethylene glycol phenyl ether	40	DGP	
Diethylene glycol phthalate	34	DGL	
Diethylene glycol propyl ether, see Poly (2-8) alkylene glycol monoalkyl (c1-C6) ether	40	DGO	PAG
Diethylenetriamine	27	DET	
Diethylenetriamine pentaacetic acid, pentasodium salt solution	43		
Diethylethanolamine	8	DAE	
Diethyl ether, see Ethyl ether	41		EET
Di-(2-ethylhexyl)adipate	34	DEH	
Di-(2-ethylhexyl)phosphoric acid	1	DEP	
*Di-(2-ethylhexyl)phthalate, see Dialkyl (c7-C13) phthalates	34	DIE	DIO/DOP/DAH
Diethyl phthalate	34	DPH	
Diethyl sulfate	34	DSU	
Diglycidyl ether of Bisphenol A	41	BDE	BPA
Diglycidyl ether of Bisphenol F	41	DGF	
Diheptyl phthalate	34	DHP	
Di-n-hexyl adipate	34	DHA	
Dihexyl phthalate	34		
1,4Dihydro-9,10-dihydroxy anthracene, disodium salt solution	5	DDH	
Diisobutylamine	7	DBU	
*Diisobutylcarbinol, see Nonyl alcohol	20	DBC	NNS
Diisobutylene	30	DBL	
Diisobutyl ketone	18	DIK	
Diisobutyl phthalate	34	DIT	
*Diisodecyl phthalate, see Dialkyl (C7-C13) phthalates	34	DID	DAH
Diisononyl adipate	34	DNY	
*Diisononyl phthalate, see Dialkyl (C7-C13) phthalates	34	DIN	DAH
Diisooctyl phthalate	34	DIO	
Diisopropanolamine	8	DIP	
Diisopropylamine	7	DIA	
Diisopropylbenzene	32	DIX	
Diisopropyl naphthalene	32	DII	
N,N-Dimethyl acetamide	10	DAC	
N,N-Dimethylacetamide solution	10	DLS	
Dimethyl adipate	34	DLA	
Dimethylamine	7	DMA	
Dimethylamine solution	7		DMG/DMY/DMC



**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Dimethylamine salt of 4-Chloro-2-methylphenoxyacetic acid solution	9	CDM	
Dimethylamine salt of 2,4-dichlorophenoxyacetic acid solution	1,20	DAD	DDA/DSX
2,6-Dimethylaniline	9	DMM	
Dimethylcyclcsiloxane hydrolyzate	34		
N,N-Dimethylcyclohexylamine	7	DXM	
Dimethylethanolamine	8	DMB	
Dimethylformamide	10	DMF	
Dimethyl furan	41		
Dimethyl glutarate	34	DGT	
Dimethyl hydrogen phosphite	234	DPI	
Dimethyl naphthalene sulfonic acid, sodium salt solution	234	DNS	
Dimethyloctanoic acid	4	DMO	
Dimethyl phthalate	34	DTL	
Dimethylpolysiloxane	34	DMP	
2,2-Dimethylpropane-1,3-diol	20	DDI	
Dimethyl succinate	34	DSE	
Dinitrotoluene	42	DNM	DTT/DNL/DNU
*Dinonyl phthalate, see Dialkyl (C7-C13) phthalates	34	DIF	DAH
*Diocetyl phthalate, see Dialkyl (C7-C13) phthalates	34	DOP	DAH
1,4-Dioxane	41	DOX	
Dipentene	30	DPN	
Diphenyl	32	DIL	
Diphenylamines, alkylated	7	DAJ	
Diphenylamine, reaction product with 2,2,4-trimethylpentene	7	DAK	
Diphenyl, Diphenyl ether mixture	33	DDO	DTH
Diphenyl ether	41	DPE	
Diphenyl ether, Diphenyl phenyl ether mixture	41	DOB	
Diphenylmethane diisocyanate	12	DPM	
Diphenylol propane-Epichlorohydrin resins	10	DPR	
Di-n-propylamine	7	DNA	
Dipropylene glycol	40	DPG	
Dipropylene glycol butyl ether, see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether	40	DBG	PAG
Dipropylene glycol dibenzoate	34	DGY	
Dipropylene glycol methyl ether, see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether	40	DPY	PAG
Distillates: flashed feed stocks	33	DFF	
Distillates: straight run	33	DSR	
*Ditridecyl phthalate, see Dialkyl (C7-C13) phthalates	34	DTP	DAH
*Diundecyl phthalate, see Dialkyl (C7-C13) phthalates	34	DUP	DAH
Dodecane	31	DOC	PFN
Dodecanol	20	DDN	LAL
Dodecene	30	DOZ	DDC/DOD
2-Dodecenylsuccinic acid, dipotassium salt solution	34		DSP
*Dodecyl alcohol, see Dodecanol			DDN
Dodecylamine, tetradecylamine mixture	207	DTA	
Dodecylbenzene	32	DDB	AKB
Dodecylbenzenesulfonic acid	20	DSA	

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ALPHABETICAL LISTING OF COMPOUNDS**

<b>Chemical Name</b>	<b>Group No.</b>	<b>CHRIS Code</b>	<b>Related CHRIS codes</b>
Dodecyl diphenyl oxide disulfonate solution	43	DOS	
Dodecyl hydroxypropyl sulfide	<sup>2</sup> 0	DOH	
Dodecylmethacrylate	14	DDM	
Dodecyl, pentadecyl methacrylate mixtures	14	DDP	
Dodecyl phenol	21	DOL	
Dodecyl xylene	32	DXY	
Drilling brine (containing Calcium, Potassium or Sodium salts)	43		DRB
Drilling brine (containing Zinc salts)	43	DZB	
Drilling mud (low toxicity) (if flammable or combustible)	33		DRM
Drilling mud (low toxicity) (if non-flammable or non-combustible)	43		DRM
Epichlorohydrin	17	EPC	
Epoxy resin	18		
Ethane	31	ETH	
Ethanolamine	8	MEA	
*2-Ethoxyethanol, see Ethylene glycol monoalkyl ethers	40	EEO	EGC/EGE
2-Ethoxyethyl acetate	34	EEA	
*Ethoxylated alcohols, C11-C15, see the alcohol polyethoxylates	20		APU/APV/APW (EOD/ENP/EOP/EOT/ETD)
Ethoxy triglycol	40	ETG	
Ethyl acetate	34	ETA	
Ethyl acetoacetate	34	EAA	
Ethyl acrylate	14	EAC	
Ethyl alcohol	<sup>2</sup> 0	EAL	
Ethylamine	<sup>2</sup> 7	EAM	
Ethylamine solution	7	EAN	
Ethyl amyl ketone	18	EAK	ELK
Ethyl benzene	32	ETB	
Ethyl butanol	20	EBT	
N-Ethyl-n-butylamine	7	EBA	
Ethyl butyrate	34	EBR	
Ethyl chloride	36	ECL	
Ethyl cyclohexane	31	ECY	
N-Ethylcyclohexylamine	7	ECC	
Ethylene	30	ETL	
Ethylene carbonate	34		
Ethylene chlorohydrin	20	ECH	
Ethylene cyanohydrin	20	ETC	
Ethylenediamine	<sup>2</sup> 0	EDA	EMX
Ethylenediaminetetracetic acid, tetrasodium salt solution	43	EDS	
Ethylene dibromide	36	EDB	
Ethylene dichloride	<sup>2</sup> 36	EDC	
Ethylene glycol	<sup>2</sup> 0	EGL	
Ethylene glycol acetate	34	EGO	
Ethylene glycol butyl ether, see Ethylene glycol monoalkyl ethers	40	EGM	EGC
Ethylene glycol tert-butyl ether, see Ethylene glycol monoalkyl ethers	40		EGC

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Ethylene glycol butyl ether acetate	34	EMA	
Ethylene glycol diacetate	34	EGY	
Ethylene glycol dibutyl ether	40	EGB	
Ethylene glycol ethyl ether, see Ethylene glycol monoalkyl ethers	40	EGE	EGC/EEO
Ethylene glycol ethyl ether acetate, see 2-Ethoxyethyl acetate	34	EGA	EEA
Ethylene glycol hexyl ether	40	EGH	
Ethylene glycol isopropyl ether, see Ethylene glycol monoalkyl ethers	40	EGI	EGC
Ethylene glycol methyl butyl ether	40	EMB	
Ethylene glycol methyl ether, see Ethylene glycol monoalkyl ethers	40	EME	EGC
Ethylene glycol methyl ether acetate	34	EGT	
Ethylene glycol monoalkyl ethers	40	EGC	
Ethylene glycol phenyl ether	40	EPE	
Ethylene glycol phenyl ether, Diethylene glycol phenyl ether mixture	40	EDX	
Ethylene glycol propyl ether, see Ethylene glycol monoalkyl ethers	40	EGP	EGC
Ethylene oxide	<sup>1</sup> 0	EOX	
Ethylene oxide, Propylene oxide mixture	16	EPM	
Ethylene-Propylene copolymer	30		
Ethylene, Vinyl acetate copolymer emulsion	43		
Ethyl ether	41	EET	
Ethyl-3-ethoxypropionate	34	EEP	
*Ethylhexaldehyde, see Octyl aldehydes	19	EHA	OAL
2-Ethylhexanoic acid, see Octanoic acids	4	EHO	OAY
*2-Ethylhexanol, see Octanol	20	EHX	OCX
2-Ethylhexyl acrylate	14	EAI	
2-Ethylhexylamine	7	EHM	
Ethyl hexyl phthalate	34	EHE	
*Ethyl hexyl tallate	34	EHT	
2-Ethyl-1-(hydroxymethyl)propane-1,3-diol, C8-C10 ester	34	EHD	
Ethylidene norbornene	<sup>2</sup> 30	ENB	
Ethyl methacrylate	14	ETM	
2-Ethyl-6-methyl-N(1'-methyl-2-methoxyethyl)aniline	9	EEM	
o-Ethyl phenol	21	EPL	
Ethyl propionate	34	EPR	
2-Ethyl-3-propylacrolein	<sup>2</sup> 19	EPA	
Ethyl toluene	32	ETE	
*Fatty acids (saturated, C13+)	34	FAD	SRA
Ferric chloride solution	1	FCS	FCL
Ferric hydroxyethylethylenediaminetriacetic acid, trisodium salt solution	<sup>2</sup> 43	FHX	STA
Ferric nitrate, Nitric acid solution	3	FNN	
Fish solubles (water based fish meal extracts)	43	FSO	
Fluorosilicic acid	1	FSJ	
Formaldehyde, Methanol mixtures	<sup>2</sup> 19	MTM	
Formaldehyde solution	<sup>2</sup> 19	FMS	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Formamide	10	FAM	
Formic acid	<sup>2</sup> 4	FMA	
Fructose solution	43		
Fumaric adduct of Rosin, water dispersion	43	FAR	
Furfural	19	FFA	
Furfuryl alcohol	<sup>2</sup> 20	FAL	
Gas oil: cracked	33	GOC	
Gasoline blending stocks: alkylates	33	GAK	
Gasoline blending stocks: reformates	33	GRF	
Gasolines:			
Automotive (not over 4.23 grams lead per gal.)	33	GAT	
Aviation (not over 4.86 grams lead per gal.)	33	GAV	AVA
Casinghead (natural)	33	GCS	
Polymer	33	GPL	
Straight run	33	GSR	
Glucose solution	43		
Glutaraldehyde solution	19	GTA	
Glycerine	<sup>2</sup> 20	GCR	
Glycerine, Dioxanedimethanol mixture	20	GDM	
Glycerol monooleate	20	GMO	
Glycerol polyalkoxylate	34		
Glyceryl triacetate	34		
Glycidyl ester of C10 tridecylacetic acid, see Glycidyl ester of tridecyl acetic acid	34		GLT
Glycidyl ester of tridecylacetic acid	34	GLT	
Glycidyl ester of Versatic acid, see Glycidyl ester of tridecylacetic acid	34		
Glycine, sodium salt solution	7		
Glycol diacetate	34		
Glyoxal solutions	19	GOS	
Glyoxylic acid	4	GAC	
Heptane	31	HMX	HPI/HPT
n-Heptanoic acid	4	HEP	
Heptanol	20	HTX	HTN
Heptene	30	HPX	HTE
Heptyl acetate	34	HPE	
*Herbicide (C15-H22-NO2-Cl), see Metolachlor			MCO
Hexaethylene glycol, see Polyethylene glycol	40		
Hexamethylene glycol	20		
Hexamethylenediamine adipate solution	43	HAM	
Hexamethylenediamine solution	7	HMC	HMD
Hexamethylenetetramine	7	HMT	
Hexamethylenetetramine solutions	7	HTS	
Hexamethylenimine	7	HMI	
Hexane	<sup>2</sup> 31	HXS	IHA/HXA
Hexanoic acid	4	HXO	
Hexanol	20	HXN	
*Hexene	30	HEX	HXE/HXT/MPN/MTN
Hexyl acetate	34	HAE	HSA
Hexylene glycol	20	HXG	

**TABLE 7.1  
ALPHABETICAL LISTING OF COMPOUNDS**

<b>Chemical Name</b>	<b>Group No.</b>	<b>CHRIS Code</b>	<b>Related CHRIS codes</b>
Hydrochloric acid	1	HCL	
*Hydrofluorosilicic acid, see Fluorosilicic acid	1	HFS	FSJ
Hydrogen peroxide solutions	<sup>1</sup> 0		HPN/HPS/HPO
2-Hydroxyethyl acrylate	<sup>1,2</sup> 0	HAI	
N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution	43	HET	
2-Hydroxy-4-(methylthio)butanoic acid	4	HBA	
Hydroxy terminated polybutadiene, see polybutadiene, hydroxyl terminated	20		
Isophorone	<sup>2</sup> 18	IPH	
Isophorone diamine	7	IPI	
Isophorone diisocyanate	12	IPD	
Isoprene	30	IPR	
Isopropylbenzene(cumene), see Propylbenzene	32	CUM	PBY/CUM
Jet Fuels:			
JP-4	33	JPF	
JP-5	33	JPV	
JP-8	33	JPE	
Kaolin clay slurry	43		
Kerosene	33	KRS	
Ketone residue	18		
Kraft black liquor	05		KPL
Kraft pulping liquors (Black, Green, or White)	05	KPL	
Lactic acid	<sup>2</sup> 0	LTA	
Lactonitrile solution	37	LNI	
Lard	34		
Latex (ammonia inhibited)	30	LTX	
Latex, liquid synthetic	43	LLS	LTX
Lauric acid	34	LRA	
Lauryl polyglucose (50% or less)	20	LAP	
Lecithin (soyabean)	34	LEC	
Lignin liquor	43		
Liquid Streptomyces solubles	43		
Long chain alkaryl polyether (C11-C20)	41	LCP	
Long chain alkaryl sulfonic acid (C16-C60)	<sup>2</sup> 0	LCS	
Long chain alkylphenate/Phenol sulfide mixture	21		
Long chain polyetheramine in alkyl (C2-C4) benzenes	7	LCE	
Magnesium chloride solution	<sup>1,2</sup> 0		
Magnesium hydroxide slurry	5		
Magnesium long chain alkaryl sulfonate (C11-C50)	34	MAS	
Magnesium long chain alkyl phenate sulfide (C8-C20)	34	MPS	
Magnesium long chain alkyl salicylate (C11+)	34	MLS	
*Magnesium nonyl phenol sulfide, see Magnesium long chain alkyl phenate sulfide (C8-C20)			MPS
Magnesium sulfonate, see Magnesium long chain sulfonate (C11-C50)	34	MSE	MAS
Maleic anhydride	11	MLA	
Mercaptobenzothiazol, sodium salt solution	05		SMB
Mesityl oxide	<sup>2</sup> 18	MSO	
Metam sodium solution	07	MSS	SMD

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Methacrylic acid	04	MAD	
Methacrylic resin in Ethylene dichloride	14	MRD	
Methacrylonitrile	15	MET	
Methane	31	MTH	
3-Methoxy-1-butanol	20		
3-Methoxybutyl acetate	34	MOA	
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide, see Metolachlor			
1-Methoxy-2-propyl acetate	34	MPO	
Methoxy triglycol	40	MTG	
Methyl acetate	34	MTT	
Methyl acetoacetate	34	MAE	
Methyl acetylene, propadiene mixture	30	MAP	
Methyl acrylate	14	MAM	
Methyl alcohol	<sup>2</sup> 20	MAL	
Methylamine solution	7	MSZ	
Methyl amyl acetate	34	MAC	
*Methyl amyl alcohol	20	MAA	MIC
Methyl amyl ketone	18	MAK	
Methyl bromide	36	MTB	
Methyl butenol	20	MBL	
Methyl butyl ketone	18	MBK	
Methyl tert-butyl ether	<sup>2</sup> 41	MBE	
Methylbutynol	20	MBY	
3-Methyl butyraldehyde	19		
Methyl butyrate	34	MBU	
Methyl chloride	36	MTC	
Methylcyclohexane	31	MCY	
Methylcyclopentadiene dimer	30	MCK	
Methyl diethanolamine	8	MDE	MAB
2-Methyl-6-ethyl aniline	9	MEN	
Methyl ethyl ketone	<sup>2</sup> 18	MEK	
2-Methyl-5-ethylpyridine	9	MEP	
Methyl formate	34	MFM	
N-Methylglucamine solution	43	MGC	
N-Methylglucamine solution (70% or less)	43	MGC	
Methyl heptyl ketone	18	MHK	
2-Methyl-2-hydroxy-3-butyne	20	MHB	
Methyl isoamyl ketone	18		MAK
Methyl isobutyl carbinol, see Methyl amyl alcohol	20	MIC	MAA
Methyl isobutyl ketone	<sup>2</sup> 18	MIK	
Methyl methacrylate	14	MMM	
3-Methyl-3-methoxybutanol	20		
3-Methyl-3-methoxybutyl acetate	34		
Methyl naphthalene	32	MNA	
Methylolureas	19	MUS	
2-Methyl pentane	31		IHA
2-Methyl-1-pentene, see Hexene	30	MPN	HEX
*4-Methyl-1-pentene, see Hexene	30	MTN	HEX
Methyl propyl ketone	18	MKE	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Methylpyridine	9		MPR/MPE/MPF
N-Methyl-2-pyrrolidone	<sup>2</sup> 9	MPY	
Methyl Salicylate	34	MES	
alpha-Methylstyrene	30	MSR	
Metolachlor	34	MCO	
Milk	43		
Mineral spirits	33	MNS	
Molasses	20		
Molasses residue	0		
Monochlorodifluoromethane	36	MCF	
Morpholine	<sup>2</sup> 7	MPL	
Motor fuel anti-knock compounds containing lead alkyls	<sup>1</sup> 0	MFA	
Myrcene	30	MRE	
Naphtha:			
Aromatic	33		
Coal tar solvent	33	NCT	
Cracking fraction	<sup>2</sup> 33		
Heavy	33		
Paraffinic	33		
Petroleum	33	PTN	
Solvent	33	NSV	
Stoddard Solvent	33	NSS	
Varnish Makers' and Painters'	33	NVM	
Naphthalene	32	NTM	
Naphthalene sulfonic acid-formaldehyde copolymer, sodium salt solution	0	NFS	
Naphthalene sulfonic acid, sodium salt solution	34	NSA	
Naphthenic acids	4	NTI	
Naphthenic acid, sodium salt solution	43	NTS	
Neodecanoic acid	4	NEA	
Nitrating acid	<sup>1</sup> 0	NIA	
Nitric acid (70% or less)	3	NCD	
Nitric acid (Greater than 70%)	<sup>1</sup> 0		NAC
Nitrobenzene	42	NTB	
o-Nitrochlorobenzene, see Chloronitrobenzene	42		CNO/CNP
Nitroethane	42	NTE	
o-Nitrophenol	<sup>1,2</sup> 0	NTP	NIP/NPH
Nitropropane	42	NPM	NPN/NPP
Nitropropane, Nitroethane mixture	42		NNM/NNL
Nitrotoluene	42	NIT	NIE/NTT/NTR
Nonane	31	NAX	NAN
Nonanoic acid	4	NNA	NAI/NIN
Nonanoic, Tridecanoic acid mixture	4	NAT	
*Nonene	30	NOO	NON/NNE
Nonyl acetate	34	NAE	
*Nonyl alcohol	<sup>2</sup> 0	NNS	NNI/NNN/DBC
Nonyl methacrylate	14	NMA	
Nonylphenol	21	NNP	
Nonyl phenol (ethoxylated)	40		NPE
Nonyl phenol poly(4-12)ethoxylates	40	NPE	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
*Nonyl phenol sulfide solution, see Alkyl phenol sulfide (C8-C40)			AKS/NPS
Noxious Liquid Substance, n.o.s. (NLS's)	0		
1-Octadecene	30		
Octadecenoamide	10	ODD	
Octane	31	OAX	IOO/OAN
*Octanoic acid	4	OAY	OAA/EHO
Octanol	<sup>2</sup> 20	OCX	IOA/OTA/EHX
Octene	30	OTX	OTE
n-Octyl acetate	34	OAF	OAE
*Octyl alcohol, see (Octanol)	<sup>2</sup> 20	OCX	IOA/OTA
*Octyl aldehyde	19	OAL	IOC/OLX/EHA
Octyl decyl adipate	34	ODA	
Octyl nitrate, see Alkyl (C7-C9) nitrates	<sup>2</sup> 34	ONE	AKN
Octyl phenol	21		
Octyl phthalate, see Dialkyl (C7-C13) phthalates	34		DAH
Oil, edible:			
Beechnut	34	OBN	VEO
*Castor	34	OCA	VEO
Cocoa butter	34	OCB	VEO
Coconut	<sup>2</sup> 34	OCC	VEO
Cod liver	34	OCL	AFN
*Corn	34	OCO	VEO
*Cottonseed	34	OCS	VEO
*Fish	<sup>2</sup> 34	OFS	AFN
Groundnut	34	OGN	VEO
Hazelnut	34	OHN	VEO
*Lard	34	OLD	AFN
Maize	34		VEO/OCO
Nutmeg butter	34	ONB	VEO
*Olive	34	OOL	VEO
*Palm	<sup>2</sup> 34	OPM	VEO
*Palm kernel	34	OPO	VEO
*Peanut	34	OPN	VEO
Poppy	34	OPY	VEO
Poppy seed	34		VEO
Raisin seed	34	ORA	VEO
*Rapeseed	34	ORP	VEO
*Rice bran	34	ORB	VEO
*Safflower	34	OSF	VEO
Salad	34	OSL	VEO
Sesame	34	OSS	VEO
*Soya bean	34	OSB	VEO
*Sunflower seed	34	OSN	VEO
*Tucum	34	OTC	VEO
*Vegetable	34	OVG	VEO
Walnut	34	OWN	VEO
Oil, fuel:			
No. 1	33	OON	
No. 1-D	33	OOD	



**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
No. 2	33	OTW	
No. 2-D	33	OTD	
No. 4	33	OFR	
No. 5	33	OFV	
No. 6	33	OSX	
Oil, misc:			
Aliphatic	33		
Animal	34	OMA	AFN
Aromatic	33		
Clarified	33	OCF	
Coal	33		
Coconut oil, fatty acid methyl ester	34	OCM	
Cotton seed oil, fatty acid	34	CFY	
Crude	33	OIL	
Diesel	33	ODS	
Gas, high pour	33		
Gas, low pour	33		
Gas, low sulfur	33		
Heartcut distillate	33		
Lanolin	34	OLL	AFN
Linseed	33	OLS	
Lubricating	33	OLB	
Mineral	33	OMN	
Mineral seal	33	OMS	
Motor	33	OMT	
*Neatsfoot	33	ONF	AFN
Oiticica	34	OOI	
Palm oil, fatty acid methyl ester	34	OPE	
Penetrating	33	OPT	
Perilla	34	OPR	
Pilchard	34	OPL	AFN
Pine	33	OPI	
Residual	33		
Road	33	ORD	
Rosin	33	ORN	
Seal	34		
Soapstock	34	OIS	
*Soybean (epoxidized)	34		EVO
*Sperm	33	OSP	AFN
Spindle	33	OSD	
Tall	34	OTL	
Tall, fatty acid	<sup>2</sup> 34	TOF	
Transformer	33	OTF	
Tung	34	OTG	
Turbine	33	OTB	
Wood	34		
Olefin/Alkyl ester copolymer (molecular weight 2000+)	34	OCP	
Olefin mixtures	30		OFX/OFY
alpha-Olefins (C6 - C18) mixtures	30	OAM	
Olefins (C13+)	30		

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Oleic acid	04	OLA	
Oleum	1,20	OLM	
Oleylamine	10	OLY	
Oxyalkylated alkyl phenol formaldehyde	33		
Palm kernel acid oil	34	PNO	
Palm kernel acid oil, methyl ester	34	PNF	
*Palm kernel oil, fatty acid, see Palm kernel acid oil			
*Palm kernel oil, fatty acid methyl ester, see Palm kernel acid oil, methyl ester			
Palm stearin	34	PMS	
n-Paraffins (C10 - C20), see n-Alkanes (C10+)	31	PFN	
Paraldehyde	19	PDH	
Pentachloroethane	36	PCE	
Pentadecanol, see alcohols (C13+)	20	PDC	ALY
1,3-Pentadiene	30	PDE	PDN
Pentaethylenehexamine	7	PEN	
Pentaethylenehexamine, Tetraethylenepentamine mixture	7	PEP	
Pentane	31	PTY	IPT/PTA
Pentanoic acid	4	POC	
Pentene	30	PTX	PTE
Pentene, Miscellaneous hydrocarbon mixture	230		
Pentyl aldehyde	19		
n-Pentyl propionate	34	PPE	
Perchloroethylene	36	PER	
Petrolatum	33	PTL	
Phenol	21	PHN	
1-Phenyl-1-xylyl ethane	32	PXE	
Phosphoric acid	1	PAC	
Phosphorus	10		PPW/PPR/PPB
Phthalic anhydride (molten)	11	PAN	
Phthalate based polyester polyol	20	PBE	
alpha-Pinene	30	PIO	
beta-Pinene	30	PIP	
*Pinene	30	PIN	PIO/PIP
*Pine oil	33	PNL	OPI
Polyalkyl (C18 - C22) acrylate in Xylene	14	PIX	
Polyalkylene glycol butyl ether, see Poly(2-8) alkylene glycol monoalkyl (C1-C6) ether	40	PGB	PAG
Poly(2-8) alkylene glycol monoalkyl (C1-C6) ether	40	PAG	
Poly(2-8) alkylene glycol monoalkyl (C1-C6) ether acetate	34	PAF	
Polyalkylene glycols, polyalkylene glycol monoalkyl ethers mixtures	40	PPX	
Polyalkylene oxide polyol	20	PAO	
Polyalkyl methacrylate (C1-C20)	14	PMT	
Polyaluminum chloride solution	1		
Polybutadiene, hydroxyl terminated	20		
Polybutene	30	PLB	
Polybutenyl succinimide	10	PBS	
Poly(2+)cyclic aromatics	32	PCA	
Polydimethylsiloxane	34		

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Polyether (molecular weight 2000+)	41	PYR	
Polyethylene glycol	40		
Polyethylene glycol dimethyl ether	40		
Polyethylene glycol monoalkyl ether, see Poly(2-8) alkylene glycol monoalkyl (C1-C6) ether	40	PEE	PAG
Polyethylene polyamines	<sup>2</sup> 7	PEB	
Polyferric sulfate solution	34	PSS	
Polyglycerine, Sodium salts solution (containing less than 3% Sodium hydroxide)	<sup>2</sup> 20	PGT	
Polyglycerol	20		GCR
Poly(4+)isobutylene	30		
Polymethylene polyphenyl isocyanate	12	PPI	
Polymethylsiloxane	34		
Polyolefin (molecular weight 300+)	30		
Polyolefin amide alkeneamine (C28+)	7	POD	
Polyolefin amide alkeneamine borate (C28-C250)	34	PAB	
Polyolefin amide alkeneamine/Molybdenum oxysulfide mixture	7		
Polyolefin amide alkeneamine polyol	7	PAP	
Polyolefinamine in alkyl(C2-C4)benzenes	7	POF	
Polyolefin anhydride	11	PAR	
Polyolefin ester (C28-C250)	34	POS	
Polyolefin phenolic amine (C28-C250)	7	PPH	
Polyolefin phosphorosulfide, barium derivative (C28-C250)	34	PPS	
Poly(20)oxyethylene sorbitan monooleate	34	PSM	
Polypropylene	30	PLP	
Poly(5+)propylene	30	PLQ	
Polypropylene glycol	40	PGC	
Polypropylene glycol methyl ether	40	PGM	
*Polysiloxane	34		DMP
Potassium chloride solution	43	PCS	(DRB)
Potassium hydroxide solution	<sup>2</sup> 5		CPS
Potassium oleate	34	POE	
Potassium polysulfide, Potassium thiosulfide solution (41% or less)	0	PTG	
Potassium thiosulfate solution	43	PTF	
Propane	31	PRP	
Propanil, Mesityl oxide, Isophorone mixture	7	PMI	
Propanolamine	8	PAX	MPA/PLA
Propionaldehyde	19	PAD	
Propionic acid	4	PNA	
Propionic anhydride	11	PAH	
Propionitrile	37	PCN	
n-Propoxypropanol, see Propylene glycol monoalkyl ether	40	PXP	PGE
Propyl acetate	34		IAC/PAT
Propyl alcohol	<sup>2</sup> 20		IPA/PAL
Propyl amine	7		IPO/IPP/PRA
Propylbenzene	32	PBY	PBZ/CUM
n-Propyl chloride	36	PRC	
iso-Propylcyclohexane	31	IPX	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Propylene	30	PPL	
Propylene butylene polymer	30	PBP	
Propylene carbonate	34		
Propylene dimer	30	PDR	
Propylene glycol	<sup>2</sup> 20	PPG	
Propylene glycol n-butyl ether, see Propylene glycol monoalkyl ether	40	PGD	PGE
Propylene glycol ethyl ether, see Propylene glycol monoalkyl ether	40	PGY	PGE
Propylene glycol methyl ether, see Propylene glycol monoalkyl ether	40	PME	PGE
Propylene glycol methyl ether acetate	34	PGN	
Propylene glycol monoalkyl ether	40	PGE	PME/PGY
Propylene glycol propyl phenyl ether	40	PGP	
Propylene glycol propyl ether, see Propylene glycol monoalkyl ether	40		PGE
Propylene oxide	16	POX	
Propylene tetramer	30	PTT	
Propylene trimer	30	PTR	
Propyl ether	41		IPE/PRE
*Pseudocumene, see Trimethylbenzene	32		TME/TRE
Pyridine	9	PRD	
Pyridine bases	9	PRB	
Rosin oil	33	ORN	
Rosin soap (disproportionated) solution	43	RSP	
*Rum, see Alcoholic beverages	20		
Sewage sludge	43		
Silica slurry	43		
Sludge, treated	43		
Sodium acetate, Glycol, Water mixture (not containing Sodium hydroxide)	<sup>2</sup> 34	SAO	SAP
Sodium acetate, Glycol, Water mixture (containing Sodium hydroxide)	5	SAP	SAO
Sodium acetate solution	34	SAN	
Sodium alkyl sulfonate solution	43	SSU	
Sodium aluminate solution	5	SAU	
Sodium aluminosilicate slurry	34		
Sodium benzoate solution	34	SBN	
Sodium borohydride, sodium hydroxide solution	5	SBX	SBH/SBI
Sodium carbonate solutions	5	SCE	
Sodium chlorate solution	<sup>1,2</sup> 0	SDD	SDC
Sodium cyanide solution	5	SCS	SCN
Sodium dichromate solution	<sup>1,2</sup> 0	SDL	SCR
Sodium dimethyl naphthalene sulfonate solution	<sup>2</sup> 34		DNS
Sodium hydrogen sulfide, Sodium carbonate solution	<sup>2</sup> 0	SSS	
Sodium hydrogen sulfite solution	43	SHX	
Sodium hydrosulfide solution	<sup>2</sup> 5	SHR	
Sodium hydrosulfide, Ammonium sulfide solution	<sup>2</sup> 5	SSA	
Sodium hydroxide solution	<sup>2</sup> 5		CSS
Sodium hypochlorite solution	5	SHP	SHC

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Sodium long chain alkyl salicylate (C13+)	34	SLS	
Sodium 2-mercaptobenzothiazol solution	5	SMB	
Sodium naphthalene sulfonate solution	34	SNS	
Sodium naphthenate solution, see Naphthenic acid, sodium salt solution	5		
Sodium nitrite solution	5	SNI	SNT
Sodium petroleum sulfonate	33	SPS	
Sodium polyacrylate solution	<sup>2</sup> 43		
Sodium salt of Ferric hydroxyethylethylenediamine triacetic acid solution	43	STA	FHX
Sodium silicate solution	<sup>2</sup> 43	SSN	SSC
Sodium sulfide, hydrosulfide solution	<sup>1,2</sup> 0		SSH/SSI/SSJ
Sodium sulfide solution	43	SDR	
Sodium sulfite solution	43	SUP	SUS
Sodium tartrates, Sodium succinates solution	43	STM	
Sodium thiocyanate solution	<sup>1,2</sup> 0	STS	SCY
Sorbitol solutions	20		SBT
Soyabean oil (epoxidized)	34		OSC/EVO
Stearic acid, see Fatty acids (saturated, C13+)	34	SRA	FAD
Stearyl alcohol	20		
Styrene	30	STY	STX
Sulfolane	39	SFL	
Sulfohydrocarbon (C3-C88)	33	SFO	
Sulfohydrocarbon, long chain (C18+) alkylamine mixture	7	SFX	
Sulfonated polyacrylate solutions	<sup>2</sup> 43		
Sulfur	<sup>1</sup> 0	SXX	
Sulfuric acid	<sup>2</sup> 2	SFA	
Sulfuric acid, spent	2	SAC	
Tall oil	34	OTL	
Tall oil fatty acid, barium salt	<sup>2</sup> 0	TOB	
Tall oil soap (disproportionated) solution	43	TOS	
Tallow	<sup>2</sup> 34	TLO	
Tallow fatty acid	<sup>2</sup> 34	TFD	
Tallow fatty alcohol, see Alcohols (C13+)	20	TFA	ALY
Tallow nitrile	37	TAN	
1,1,2,2-Tetrachloroethane	36	TEC	
*Tetradecanol, see Alcohols (C13+)	20	TTN	ALY
*Tetradecene, see the olefins entries	30	TTD	
Tetradecylbenzene	32	TDB	AKB
Tetraethylene glycol	40	TTG	
Tetraethylenepentamine	7	TTP	
Tetrahydrofuran	41	THF	
Tetrahydronaphthalene	32	THN	
*1,2,3,5-Tetramethylbenzene, see Tetramethylbenzene	32	TTB	TTC
Tetramethylbenzene	32	TTC	TTB
Tetrapropylbenzene, see Alkyl(C9+)benzenes	32		AKB
Tetrasodium salt of EDTA solution	43		EDS
Titanium tetrachloride	2	TTT	
Toluene	32	TOL	
Toluenediamine	9	TDA	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
Toluene diisocyanate	12	TDI	
o-Toluidine	9	TLI	
*Triarylphosphate, see Triisopropylated phenyl phosphates	34		TPL
Tributyl phosphate	34	TBP	
1,2,4-Trichlorobenzene	36	TCB	
1,1,1-Trichloroethane	<sup>2</sup> 36	TCE	
1,1,2-Trichloroethane	36	TCM	
Trichloroethylene	<sup>2</sup> 36	TCL	
1,2,3-Trichloropropane	36	TCN	
1,1,2-trichloro-1,2,2-trifluoroethane	36	TTF	
Tricresyl phosphate	34		TCO/TCP
*Tridecane, see n-Alkanes (C10+)	31	TRD	
Tridecanoic acid	34		
*Tridecanol, see Alcohols (C13+)	20	TDN	ALY
*Tridecene, see Olefins (C13+)	30	TDC	
Tridecyl acetate	34	TAE	
Tridecylbenzene	32	TRB	AKB
Triethanolamine	<sup>2</sup> 8	TEA	
Triethylamine	7	TEN	
Triethylbenzene	32	TEB	
Triethylene glycol	40	TEG	
Triethylene glycol butyl ether, see Poly(2-8) alkylene glycol monoalkyl (C1-C6) ether	40		PAG
Triethylene glycol butyl ether mixture	40		
Triethylene glycol di-(2-ethylbutyrate)	34	TGD	
Triethylene glycol ether mixture	40		
Triethylene glycol ethyl ether, see Poly(2-8) alkylene glycol monoalkyl (C1-C6) ether	40	TGE	PAG
Triethylene glycol methyl ether, see Poly(2-8) alkylene glycol monoalkyl (C1-C6) ether	40	TGY	PAG
Triethylenetetramine	<sup>2</sup> 7	TET	
Triethyl phosphate	34	TPS	
Triethyl phosphite	<sup>2</sup> 34	TPI	
Trifluralin in Xylene	18	TFX	
Triisobutylene	30	TIB	
Triisooctyl trimellitate	34		
Triisopropanolamine	8	TIP	
Triisopropanolamine salt of 2,4-Dichlorophenoxyacetic acid solution	43		
Triisopropylated phenyl phosphates	34	TPL	
Trimethylacetic acid	4	TAA	
Trimethylamine solution	7	TMT	
Trimethylbenzene	32	TRE	TME/TMB/TMD
Trimethylhexamethylenediamine (2,2,4- and 2,4,4-)	7	THA	
Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-)	12	THI	
Trimethylol propane polyethoxylate	20	TPR	
2,2,4-Trimethyl pentanediol-1,3-diisobutyrate, see 2,2,4-Trimethyl-1,3-pentanediol diisobutyrate			
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	34	TMQ	

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	34	TMP	
2,2,4-Trimethyl-3-pentanol-1-isobutyrate	34		
Trimethyl phosphite	<sup>2</sup> 34	TPP	
1,3,5-Trioxane	<sup>2</sup> 41	TRO	
Triphenylborane, Caustic soda solution	5	TPB	
*Tripropylene, see Propylene trimer	30		PTR
Tripropylene glycol	40	TGC	
*Tripropylene glycol methyl ether, see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether	40	TGM	PAG
Trisodium nitrilotriacetate	34		
Trisodium phosphate solution	5	TSP	
Trisilyl Phosphate, see Trixylenyl phosphate	34		TRP
Trixylenyl phosphate	34	TRP	
Turpentine	30	TPT	
Undecanoic acid	4	UDA	
Undecanol, see Undecyl alcohol	20		UND
Undecene	30	UDC	
Undecyl alcohol	20	UND	
Undecylbenzene	32	UDB	AKB
Urea, Ammonium mono- and di-hydrogen phosphate, Potassium chloride solution	0	UPX	
Urea, Ammonium nitrate solution (containing Ammonia)	6	UAS	
Urea, Ammonium nitrate solution (not containing Ammonia)	43	UAT	ANU
Urea, Ammonium phosphate solution	43	UAP	
Urea solution	43		URE
Valeraldehyde	19	VAK	IVA/VAL
Vanillin black liquor	5	VBL	
Vegetable acid oils and distillates, n.o.s.	34	VAO	
Vegetable oils, n.o.s.	34	VEO	
Vegetable protein solution	43		
Vinyl acetate	13	VAM	
Vinyl chloride	35	VCM	
Vinyl ethyl ether	13	VEE	
Vinylidene chloride	35	VCI	
Vinyl neodecanoate	13	VND	
Vinyltoluene	13	VNT	
Water	43		
Waxes:		WAX	
Candelilla	34	WDC	
Carnauba	34	WCA	
Paraffin	31	WPF	
Petroleum	33		
White Spirit (low(15-20%) aromatic)	33	WSL	WSP
Xylene	32	XLX	XLM/XLO/XLP
Xylenols	21	XYL	
Zinc alkaryl dithiophosphate (C7-C16)	34	ZAD	
Zinc alkenyl carboxamide	10	ZAA	
Zinc alkyl dithiophosphate (C3-C14)	34	ZAP	
Zinc bromide, Calcium bromide solution see Drilling brine	43		DZB

**TABLE 7.1**  
**ALPHABETICAL LISTING OF COMPOUNDS**

Chemical Name	Group No.	CHRIS Code	Related CHRIS codes
(containing Zinc salts)			

FOOTNOTES TO TABLE

Items with an asterisk (\*) are changes per CGD 92-100.

<sup>1</sup> Because of very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (G-MSO), U.S. Coast Guard, 2100 Second Street, SW., Washington, DC 20593-0001. Telephone (202) 267-1577.

<sup>2</sup> See Table 7.3 - Exceptions to the Chart.



**TABLE 7.2**  
**REACTIVITY GROUPS**

**0. UNASSIGNED CARGOES**

Acetone cyanohydrin<sup>1,2</sup>  
 Alkylbenzenesulfonic acid<sup>1,2</sup>  
 Aluminum chloride, Hydrochloric acid solution  
 Ammonium hydrogen phosphate solution<sup>1</sup>  
 Ammonium nitrate solution<sup>1</sup>  
 Ammonium thiocyanate, Ammonium thiosulfate solution<sup>1</sup>  
 Benzenesulfonyl chloride<sup>1,2</sup>  
 gamma-Butyrolactone<sup>1,2</sup>  
 Chlorine<sup>1</sup>  
 Chlorosulfonic acid<sup>1</sup>  
 Decyloxytetrahydro-thiophene dioxide<sup>2</sup>  
 2,4-Dichlorophenoxyacetic acid, Dimethylamine salt solution<sup>1,2</sup>  
 Dimethylamine salt of 2,4-dichlorophenoxyacetic acid solution<sup>1,2</sup>  
 Diphenylol propane-Epichlorohydrin resins<sup>1</sup>  
 Dodecylbenzenesulfonic acid<sup>1,2</sup>  
 Dodecylhydroxypropyl sulfide<sup>2</sup>  
 Ethylene oxide<sup>1</sup>  
 Fluorosilicic acid  
 2-Hydroxyethyl acrylate<sup>1,2</sup>  
 Lactic acid<sup>2</sup>  
 Long chain alkaryl sulfonic acid (C16-C60)<sup>2</sup>  
 Magnesium chloride solution<sup>1,2</sup>  
 Molasses residue<sup>1</sup>  
 Motor fuel anti-knock compounds containing lead alkyls<sup>1</sup>  
 Naphthalene sulfonic acid-formaldehyde copolymer, sodium salt solution<sup>1</sup>  
 Nitrating acid<sup>1</sup>  
 Nitric acid (Greater than 70%)<sup>1</sup>  
 o-Nitrophenol<sup>1,2</sup>  
 Noxious Liquid Substance, n.o.s. (NLS's)<sup>1</sup>  
 Oleum<sup>1,2</sup>  
 Phosphorus<sup>1</sup>  
 Phthalate based polyester polyol<sup>2</sup>  
 Potassium polysulfide, potassium thiosulfide solution (41% or less)  
 Sodium chlorate solution<sup>1,2</sup>  
 Sodium dichromate solution<sup>1,2</sup>  
 Sodium hydrogen sulfide, Sodium carbonate solution<sup>1,2</sup>  
 Sodium sulfide, hydrosulfide solution<sup>1,2</sup>  
 Sodium thiocyanate solution<sup>1,2</sup>  
 Sulfur<sup>1</sup>  
 Tall oil fatty acid, barium salt<sup>2</sup>

Urea, Ammonium mono- and di-hydrogen phosphate, Potassium chloride solution

**1. NON-OXIDIZING MINERAL ACIDS**

Di-(2-ethylhexyl)phosphoric acid  
 Ferric chloride solution  
 Fluorosilicic acid  
 Hydrochloric acid  
 Phosphoric acid  
 Polyaluminum chloride solution

**2. SULFURIC ACIDS**

Sulfuric acid<sup>2</sup>  
 Sulfuric acid, spent  
 Titanium tetrachloride

**3. NITRIC ACID**

Ferric nitrate, Nitric acid solution  
 Nitric acid (70% or less)

**4. ORGANIC ACIDS**

Acetic acid<sup>2</sup>  
 Acrylic acid<sup>2</sup>  
 Butyric acid  
 Cashew nut shell oil (untreated)  
 Chloroacetic acid solution  
 Chloropropionic acid  
 Citric acid  
 Decanoic acid  
 2,2-Dichloropropionic acid  
 2,2-Dimethyloctanoic acid  
 2-Ethylhexanoic acid  
 Formic acid<sup>2</sup>  
 Glyoxylic acid  
 n-Heptanoic acid  
 Hexanoic acid  
 2-Hydroxy-4-(methylthio)butanoic acid  
 Methacrylic acid  
 Naphthenic acids  
 Neodecanoic acid  
 Nonanoic acid  
 Nonanoic, tridecanoic acid mixture  
 Octanoic acid  
 Pentanoic acid  
 Propionic acid

Trimethylacetic acid  
Undecanoic acid

## 5. CAUSTICS

Ammonium sulfide solution  
Calcium hypochlorite solutions  
Caustic potash solution<sup>2</sup>  
Caustic soda solution<sup>2</sup>  
Cresylate spent caustic  
Cresylic acid, sodium salt solution  
Kraft black liquor  
Kraft pulping liquors  
Mercaptobenzothiazol, sodium salt solution  
Potassium hydroxide solution<sup>2</sup>  
Sodium acetate, glycol, water mixture  
(containing sodium hydroxide)  
Sodium aluminate solution  
Sodium borohydride, sodium hydroxide solution  
Sodium carbonate solutions  
Sodium cyanide solution  
Sodium hydrosulfide solution<sup>2</sup>  
Sodium hydrosulfide, Ammonium sulfide  
solution<sup>2</sup>  
Sodium hydroxide solution<sup>2</sup>  
Sodium hypochlorite solution  
Sodium 2-mercaptobenzothiazol solution  
Sodium naphthenate solution  
Sodium nitrite solution  
Triphenylborane, caustic soda solution  
Trisodium phosphate solution  
Vanillin black liquor

## 6. AMMONIA

Ammonia, anhydrous  
Ammonia, aqueous  
Ammonium hydroxide (28% or less ammonia)  
Ammonium nitrate-urea solution (containing  
ammonia)  
Urea, Ammonium nitrate solution (containing  
Ammonia)

## 7. ALIPHATIC AMINES

N-Aminoethyl piperazine  
Butylamine  
Calcium long chain alkyl phenolic amine (C8-  
C40)  
Cyclohexylamine  
Dibutyl amine  
Diethylamine<sup>2</sup>  
Diethylenetriamine  
Diisobutylamine  
Diisopropylamine  
Dimethylamine

Dimethylamine solution  
N,N-Dimethylcyclohexylamine  
Di-n-propylamine  
Diphenylamine, reaction product with 2,2,4-  
trimethylpentene  
Diphenylamines, alkylated  
Dodecylamine, tetradecylamine mixture<sup>2</sup>  
Dodecylmethylamine, tetradecyldimethylamine  
mixture  
Ethylamine<sup>2</sup>  
Ethylamine solution  
N-Ethyl-n-butylamine  
N-Ethylcyclohexylamine  
Ethylenediamine<sup>2</sup>  
2-Ethylhexylamine  
Hexamethylenediamine solution  
Hexamethylenetetramine  
Hexamethylenetetramine solutions  
Hexamethylenimine  
Isophorone diamine  
Long chain polyetheramine in alkyl (C2-C4)  
benzenes  
Metam sodium solution  
Methylamine solution  
Morpholine<sup>2</sup>  
Pentaethylenehexamine  
Pentaethylenehexamine,  
Tetraethylenepentamine mixture  
Polyalkyl methacrylate (C1-C20)  
Polyolefin amide alkeneamine (C28+)  
Polyolefin amide alkeneamine/Molybdenum  
oxysulfide mixture  
Polyethylene polyamines<sup>2</sup>  
Polyolefin amide alkeneamine polyol  
Polyolefinamine in alkyl (C2-C4) benzenes  
Polyolefin phenolic amine (C28-C250)  
Propanil, mesityl oxide, isophorone mixture  
Propyl amine  
Sulfohydrocarbon, long chain (C18+) alkylamine  
mixture  
Tetraethylenepentamine  
Triethylamine  
Triethylenetetramine<sup>2</sup>  
Trimethylamine solution  
Trimethylhexamethylenediamine (2,2,4- and  
2,4,4-)

## 8. ALKANOLAMINES

2-(2-Aminoethoxy)ethanol  
Aminoethyldiethanolamine,  
Aminoethylethanolamine solution  
Aminoethylethanolamine  
2-Amino-2-methyl-1-propanol  
Diethanolamine  
Diethylaminoethanol

Diethylethanolamine  
Diisopropanolamine  
Dimethylethanolamine  
Ethanolamine  
Propanolamine  
Triethanolamine<sup>2</sup>  
Triisopropanolamine

### 9. AROMATIC AMINES

Aniline  
4-Chloro-2-methylphenoxyacetic acid,  
Dimethylamine salt solution  
2,6-Diethylaniline  
Dimethylamine salt of 4-Chloro-2-  
methylphenoxyacetic acid solution  
2,6-Dimethylaniline  
2-Ethyl-6-methyl-N-(1'-methyl-2-  
methoxyethyl)aniline  
2-Methyl-6-ethyl aniline  
2-Methyl-5-ethyl pyridine  
Methylpyridine  
3-Methylpyridine  
N-Methyl pyrrolidone  
Pyridine  
Pyridine bases  
Toluenediamine  
p-Toluidine

### 10. AMIDES

Acrylamide solution  
Alkenyl (C11+) amide  
N,N-Dimethylacetamide  
N,N-Dimethylacetamide solution  
Dimethylformamide  
Formamide  
Octadecenoamide

### 11. ORGANIC ANHYDRIDES

Acetic anhydride  
Alkenylsuccinic anhydride  
Maleic anhydride  
Phthalic anhydride  
Polyolefin anhydride  
Propionic anhydride

### 12. ISOCYANATES

Diphenylmethane diisocyanate  
Isophorone diisocyanate  
Polymethylene polyphenyl isocyanate  
Toluene diisocyanate  
Trimethylhexamethylene diisocyanate (2,2,4-  
and 2,4,4-)

### 13. VINYL ACETATE

Vinyl acetate  
Vinyl ethyl ether  
Vinyl neodecanoate  
Vinyl toluene

### 14. ACRYLATES

Butyl acrylate  
Butyl methacrylate  
Butyl methacrylate, decyl methacrylate, cetyl  
eicosyl methacrylate mixture  
Cetyl eicosyl methacrylate mixture  
Decyl acrylate  
Dodecylmethacrylate  
Dodecyl, pentadecyl methacrylate mixture  
Ethyl acrylate  
2-Ethylhexyl acrylate  
Ethyl methacrylate  
Methacrylic resin in ethylene dichloride  
Methyl acrylate  
Methyl methacrylate  
Nonyl methacrylate  
Polyalkyl (C18 - C22) acrylate in Xylene  
Polyalkyl methacrylate (C1-C20)

### 15. SUBSTITUTED ALLYLS

Acrylonitrile<sup>2</sup>  
Allyl alcohol<sup>2</sup>  
Allyl chloride  
1,3-Dichloropropene  
Dichloropropene, dichloropropane mixture  
Methacrylonitrile

### 16. ALKYLENE OXIDES

Butylene oxide  
Ethylene oxide, Propylene oxide mixture  
Propylene oxide

### 17. EPICHLOROHYDRIN

Chlorohydrins  
Epichlorohydrin

### 18. KETONES

Acetone<sup>2</sup>  
Acetophenone  
Amyl methyl ketone  
Butyl heptyl ketone  
Camphor oil  
Cyclohexanone

Cyclohexanone, cyclohexanol mixture<sup>2</sup>  
Diisobutyl ketone  
Epoxy resin  
Ethyl amyl ketone  
Isophorone<sup>2</sup>  
Ketone residue  
Mesityl oxide<sup>2</sup>  
Methyl amyl ketone  
Methyl butyl ketone  
Methyl diethenaolamine  
Methyl ethyl ketone<sup>2</sup>  
Methyl heptyl ketone  
Methyl isoamyl ketone  
Methyl isobutyl ketone<sup>2</sup>  
Methyl propyl ketone  
Trifluralin in xylene

## 19. ALDEHYDES

Acetaldehyde  
Acrolein<sup>2</sup>  
Butyraldehyde  
Crotonaldehyde<sup>2</sup>  
Decaldehyde  
Ethylhexaldehyde  
2-Ethyl-3-propylacrolein<sup>2</sup>  
Formaldehyde solution<sup>2</sup>  
Formaldehyde, Methanol mixtures<sup>2</sup>  
Furfural  
Glutaraldehyde solution  
Glyoxal solutions  
3-Methyl butyraldehyde  
Methylolureas  
Octyl aldehyde  
Paraldehyde  
Pentyl aldehyde  
Propionaldehyde  
Valeraldehyde

## 20. ALCOHOLS, GLYCOLS

Acrylonitrile-Styrene copolymer dispersion in  
Polyether polyol  
Alcoholic beverages  
Alcohol polyethoxylates  
Alcohol polyethoxylates, secondary  
Alcohols (C13 and above)  
Amyl alcohol  
Behenyl alcohol  
Brake fluid base mixtures  
Butyl alcohol<sup>2</sup>  
Butylene glycol<sup>2</sup>  
Cetyl-stearyl alcohol  
Choline chloride solutions  
Cyclohexanol  
Decyl alcohol<sup>2</sup>

Diacetone alcohol<sup>2</sup>  
Diisobutylcarbinol  
2,2-Dimethylpropane-1,3-diol  
Dodecanol  
Dodecyl alcohol  
Ethoxylated alcohols, C11-C15  
2-Ethoxyethanol  
Ethyl alcohol<sup>2</sup>  
Ethyl butanol  
Ethylene chlorohydrin  
Ethylene cyanohydrin  
Ethylene glycol<sup>2</sup>  
2-Ethylhexanol  
Furfuryl alcohol<sup>2</sup>  
Glycerine<sup>2</sup>  
Glycerine, dioxanedimethanol mixture  
Glycerol monooleate  
Heptanol  
Hexamethylene glycol  
Hexanol  
Hexylene glycol  
Hydroxy terminated polybutadiene  
Lauryl polyglucose (50% or less)  
3-Methoxy-1-butanol  
Methyl alcohol<sup>2</sup>  
Methyl amyl alcohol  
Methyl butenol  
Methylbutynol  
2-Methyl-2-hydroxy-3-butyne  
Methyl isobutyl carbinol  
3-Methyl-3-methoxybutanol  
Molasses  
Nonyl alcohol<sup>2</sup>  
Octanol<sup>2</sup>  
Octyl alcohol<sup>2</sup>  
Pentadecanol  
Polyalkylene oxide polyol  
Polybutadiene, hydroxyl terminated  
Polyglycerol  
Polyglycerine, sodium salts solution (containing  
less than 3% sodium hydroxide)<sup>2</sup>  
Propyl alcohol<sup>2</sup>  
Propylene glycol<sup>2</sup>  
Rum  
Sorbitol solutions  
Stearyl alcohol  
Tallow fatty alcohol  
Tetradecanol  
Tridecanol  
Trimethylol propane polyethoxylate  
Undecanol  
Undecyl alcohol

## 21. PHENOLS, CRESOLS

Benzyl alcohol

Carbolic oil  
Creosote<sup>2</sup>  
Cresols  
Cresylic acid  
Cresylic acid dephenolized  
Cresylic acid, tar  
2,4-Dichlorophenol  
Dodecyl phenol  
o-Ethyl phenol  
Long chain alkylphenate/phenol sulfide mixture  
Nonylphenol  
Octyl phenol  
Phenol  
Xylenols

## 22. CAPROLACTAM SOLUTIONS

Caprolactam solution

## 23-29. UNASSIGNED

## 30. OLEFINS

Amylene  
Aryl polyolefin (C11-C50)  
Butadiene  
Butadiene, Butylene mixtures (cont. Acetylenes)  
Butene  
Butene oligomer  
Butylene  
1,5,9-Cyclododecatriene  
1,3-Cyclopentadiene dimer  
Cyclopentene  
Decene  
Dicyclopentadiene  
Diisobutylene  
Dipentene  
Dodecene  
Ethylene  
Ethylene-propylene copolymer  
Ethylidene norbornene<sup>2</sup>  
1-Heptene  
Hexene  
Isoprene  
Latex (ammonia (1% or less) inhibited)  
Methyl acetylene, propadiene mixture  
Methylcyclopentadiene dimer  
2-Methyl-1-pentene  
4-Methyl-1-pentene  
alpha-Methyl styrene  
Myrcene  
Nonene  
1-Octadecene  
Octene  
Olefin mixtures  
alpha-Olefins (C6 - C18) mixtures

alpha-Olefins (C13 and above)  
1,3-Pentadiene  
Pentene  
Pentene, Miscellaneous hydrocarbon mixture<sup>2</sup>  
alpha-Pinene  
beta-Pinene  
Polybutene  
Poly(4+)isobutylene  
Polyolefin (molecular weight 300+)  
Polypropylene  
Poly(5+)propylene  
Propylene  
Propylene butylene polymer  
Propylene dimer  
Propylene tetramer  
Propylene trimer  
Styrene  
Tetradecene  
Tridecene  
Triisobutylene  
Tripropylene  
Turpentine  
Undecene

## 31. PARAFFINS

Alkanes (C6-C9)  
n-Alkanes (C10+)  
iso- & cyclo- Alkanes (C10-C11)  
iso- & cyclo- Alkanes (C12+)  
Butane  
Cycloheptane  
Cyclohexane  
Cyclopentane  
Decane  
Dodecane  
Ethane  
Ethyl cyclohexane  
Heptane  
Hexane<sup>2</sup>  
Methane  
Methylcyclohexane  
2-Methyl pentane  
Nonane  
Octane  
Pentane  
Propane  
iso-Propylcyclohexane  
Tridecane  
Waxes: Paraffin

## 32. AROMATIC HYDROCARBONS

Alkyl (C3-C4) benzenes  
Alkyl (C5-C8) benzenes  
Alkyl (C9+) benzenes

Alkyl acrylate-Vinyl pyridine copolymer in  
 Toluene  
 Alkylbenzene, alkylindane, alkylindene mixture  
 (each C12-C17)  
 Benzene  
 Benzene, Hydrocarbon mixture (10% benzene  
 or more)  
 Benzene, Toluene, Xylene mixture  
 Butylbenzene  
 Butyl phenol, Formaldehyde resin in Xylene  
 Butyl toluene  
 Cumene  
 Cymene  
 Decylbenzene  
 Dialkyl(C10 - C14) benzenes  
 Diethylbenzene  
 Diisopropylbenzene  
 Diisopropyl naphthalene  
 Diphenyl  
 Dodecylbenzene  
 Dodecylxylene  
 Ethyl benzene  
 Ethyl toluene  
 Isopropylbenzene  
 Methyl naphthalene  
 Naphthalene  
 1-Phenyl-1-xylyl ethane  
 Poly(2+)cyclic aromatics  
 Propylbenzene  
 Pseudocumene  
 Tetradecylbenzene  
 Tetrahydronaphthalene  
 1,2,3,5-Tetramethylbenzene  
 Toluene  
 Tridecylbenzene  
 Triethylbenzene  
 Trimethylbenzene  
 Undecylbenzene  
 Xylene

### 33. MISCELLANEOUS HYDROCARBON MIXTURES

Alachlor technical  
 Alkylbenzenesulfonic acid, sodium salt solutions  
 Alkyl dithiothiadiazole (C6-C24)  
 Asphalt blending stocks: roofers flux  
 Asphalt blending stocks: straight run residue  
 Aviation alkylates  
 Calcium sulfonate, Calcium carbonate,  
 Hydrocarbon solvent mixture  
 Coal tar  
 Coal tar pitch  
 Decahydronaphthalene  
 Diphenyl, Diphenyl ether  
 Distillates: flashed feed stocks

Distillates: straight run  
 Drilling mud (low toxicity) (if flammable or  
 combustible)  
 Gas oil: cracked  
 Gasoline blending stocks: alkylates  
 Gasoline blending stocks: reformates  
 Gasolines:  
 Automotive (not over 4.23 grams lead per  
 gal.)  
 Aviation (not over 4.86 grams lead per gal.)  
 Casinghead (natural)  
 Polymer  
 Straight run  
 Jet Fuels:  
 JP-4  
 JP-5  
 JP-8  
 Kerosene  
 Mineral spirits  
 Naphtha:  
 Coal tar solvent  
 Petroleum  
 Solvent  
 Stoddard solvent  
 Varnish Makers' and Painters'  
 Oil, fuel:  
 No. 1  
 No. 1-D  
 No. 2  
 No. 2-D  
 No. 4  
 No. 5  
 No. 6  
 Oil, misc:  
 Aliphatic  
 Aromatic  
 Clarified  
 Coal  
 Crude  
 Diesel  
 Gas, high pour  
 Heartcut distillate  
 Linseed  
 Lubricating  
 Mineral  
 Mineral seal  
 Motor  
 Neatsfoot  
 Penetrating  
 Pine  
 Rosin  
 Sperm  
 Spindle  
 Turbine  
 Residual  
 Road

Transformer  
Oxyalkylated alkyl phenol formaldehyde  
Petrolatum  
Pine oil  
Sodium petroleum sulfonate  
Sulfohydrocarbon (C3-C88)  
Waxes: Petroleum  
White Spirit (low(15-20%) aromatic)

### 34. ESTERS

Alkane (C14-C17) sulfonic acid, sodium salt solution  
Alkyl(C8+)amine, Alkenyl (C12+) acid ester mixture  
Alkyl ester copolymer (C6-C18)  
Alkyl (C7-C9) nitrates<sup>2</sup>  
Alkyl phenol sulfide (C8-C40)  
Amyl acetate  
Animal and fish oils, n.o.s.  
Animal and fish acid oils and distillates, n.o.s.  
Barium long chain alkaryl sulfonate (C11-C50)  
Barium long chain alkyl (C8-C14) phenate sulfide  
Benzene tricarboxylic acid, trioctyl ester  
Benzylacetate  
Butyl acetate  
Butyl benzyl phthalate  
n-Butyl butyrate  
Butyl formate  
iso-Butyl isobutyrate  
n-Butyl propionate  
Calcium alkyl(C9)phenol sulfide, polyolefin phosphorosulfide mixture  
Calcium long chain alkaryl sulfonate (C11-C50)  
Calcium long chain alkyl phenate (C8-C40)  
Calcium long chain alkyl phenate sulfide (C8-C40)  
Calcium long chain alkyl salicylate (C13+)  
Calcium nitrate, Magnesium nitrate, Potassium chloride solution  
Cobalt naphthenate in solvent naphtha  
Coconut oil, fatty acid  
Cottonseed oil, fatty acid  
Cyclohexyl acetate  
Decyl acetate  
Dialkyl(C7 - C13) phthalates  
Dibutyl hydrogen phosphonate  
Dibutyl phthalate  
Diethylene glycol butyl ether acetate  
Diethylene glycol ethyl ether acetate  
Diethylene glycol methyl ether acetate  
Diethylene glycol phthalate  
Di-(2-ethylhexyl)adipate  
Di-(2-ethylhexyl)phthalate  
Diethyl phthalate

Diethyl sulfate  
Diheptyl phthalate  
Dihexyl phthalate  
Di-n-hexyl adipate  
Diisobutyl phthalate  
Diisodecyl phthalate  
Diisononyl adipate  
Diisononyl phthalate  
Diisooctyl phthalate  
Dimethyl adipate  
Dimethylcyclicsiloxane hydrolyzate  
Dimethyl glutarate  
Dimethyl hydrogen phosphite<sup>2</sup>  
Dimethyl naphthalene sulfonic acid, sodium salt solution<sup>2</sup>  
Dimethyl phthalate  
Dimethylpolysiloxane  
Dimethyl succinate  
Dinonyl phthalate  
Dioctyl phthalate  
Dipropylene glycol dibenzoate  
Ditridecyl phthalate  
2-Dodeceny succinic acid, dipotassium salt solution  
Diundecyl phthalate  
2-Ethoxyethyl acetate  
Ethyl acetate  
Ethyl acetoacetate  
Ethyl butyrate  
Ethylene carbonate  
Ethylene glycol acetate  
Ethylene glycol butyl ether acetate  
Ethylene glycol diacetate  
Ethylene glycol ethyl ether acetate  
Ethylene glycol methyl ether acetate  
Ethyl-3-ethoxypropionate  
Ethyl hexyl phthalate  
Ethyl propionate  
Fatty acids (saturated, C13+)  
Glycerol polyalkoxylate  
Glyceryl triacetate  
Glycidyl ester of C10 trialkyl acetic acid  
Glycidyl ester of tridecylacetic acid  
Heptyl acetate  
Hexyl acetate  
Lauric acid  
Lecithin (soyabean)  
Magnesium long chain alkaryl sulfonate (C11-C50)  
Magnesium long chain alkyl phenate sulfide (C8-C20)  
Magnesium long chain alkyl salicylate (C11+)  
3-Methoxybutyl acetate  
1-Methoxy-2-propyl acetate  
Methyl acetate  
Methyl acetoacetate

Methyl amyl acetate	Tung
Methyl butyrate	Olefin/alkyl ester copolymer (molecular weight 2000+)
Methyl formate	Oleic acid
3-Methyl-3-methoxybutyl acetate	Palm kernel acid oil
Methyl salicylate	Palm kernel acid oil, methyl ester
Metolachlor	Palm stearin
Naphthalene sulfonic acid, sodium salt solution (40% or less)	n-Pentyl propionate
Nonyl acetate	Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate
n-Octyl acetate	Polydimethylsiloxane
Octyl decyl adipate	Polyferric sulfate solution
Oil, edible:	Polymethylsiloxane
Beechnut	Poly(20)oxyethylene sorbitan monooleate
Castor	Polysiloxane
Cocoa butter	Polyolefin amide alkeneamine borate (C28-C250)
Coconut <sup>2</sup>	Polyolefin ester (C28-C250)
Cod liver	Polyolefin phosphorosulfide, barium derivative (C28-C250)
Corn	Potassium oleate
Cottonseed	Propyl acetate
Fish <sup>2</sup>	Propylene carbonate
Groundnut	Propylene glycol methyl ether acetate
Hazelnut	Sodium acetate, glycol, water mixture (not containing sodium hydroxide) <sup>2</sup>
Lard	Sodium acetate solution
Lanolin	Sodium benzoate solution
Nutmeg butter	Sodium dimethyl naphthalene sulfonate solution <sup>2</sup>
Olive	Sodium long chain alkyl salicylate (C13+)
Palm <sup>2</sup>	Sodium naphthalene sulfonate solution
Palm kernel	Soyabean oil (epoxidized)
Peanut	Stearic acid
Poppy	Tall oil
Poppy seed	Tallow <sup>2</sup>
Raisin seed	Tallow fatty acid <sup>2</sup>
Rapeseed	Tributyl phosphate
Rice bran	Tricresyl phosphate
Safflower	Tridecanoic acid
Salad	Tridecyl acetate
Sesame	Triethylene glycol di-(2-ethylbutyrate)
Soya bean	Triethyl phosphate
Sunflower	Triethyl phosphite <sup>2</sup>
Sunflower seed	Triisooctyl trimellitate <sup>2</sup>
Tucum	Triisopropylated phenyl phosphates
Vegetable	2,2,4-Trimethyl-1,3-pentanediol diisobutyrate
Walnut	2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate
Oil, misc.:	2,2,4-Trimethyl-3-pentanol-1-isobutyrate
Animal	Trimethyl phosphite <sup>2</sup>
Coconut oil, fatty acid methyl ester	Trisodium nitrilotriacetate
Cotton seed oil, fatty acid	Trixylyl phosphate
Lanolin	Trixylenyl phosphate
Palm kernel oil, fatty acid methyl ester	Vegetable acid oils and distillates, n.o.s.
Palm oil, methyl ester	Vegetable oils, n.o.s.
Pilchard	Waxes: Carnauba
Perilla	Zinc alkaryl dithiophosphate (C7-C16)
Soapstock	
Soyabean (epoxidized)	
Tall	
Tall, fatty acid <sup>2</sup>	



Zinc alkyl dithiophosphate (C3-C14)

### 35. VINYL HALIDES

Vinyl chloride  
Vinylidene chloride

### 36. HALOGENATED HYDROCARBONS

Benzyl chloride  
Carbon tetrachloride  
Chlorinated paraffins (C10 - C13)  
Chlorinated paraffins (C14 - C17)  
Chlorobenzene  
Chlorodifluoromethane  
Chloroform  
Chlorotoluene  
Dichlorobenzene  
Dichlorodifluoromethane  
1,1-Dichloroethane  
1,6-Dichlorohexane  
2,2'-Dichloroisopropyl ether  
Dichloromethane  
Dichloropropane  
Ethyl chloride  
Ethylene dibromide  
Ethylene dichloride<sup>2</sup>  
Methyl bromide  
Methyl chloride  
Monochlorodifluoromethane  
n-Propyl chloride  
Pentachloroethane  
Perchloroethylene  
1,1,2,2-Tetrachloroethane  
1,2,4-Trichlorobenzene  
1,1,1-Trichloroethane<sup>2</sup>  
1,1,2-Trichloroethane  
Trichloroethylene<sup>2</sup>  
1,2,3-Trichloropropane  
1,1,2-trichloro-1,2,2-trifluoroethane

### 37. NITRILES

Acetonitrile  
Adiponitrile  
Lactonitrile solution  
Propionitrile  
Tallow nitrile

### 38. CARBON DISULFIDE

Carbon disulfide

### 39. SULFOLANE

Sulfolane

### 40. GLYCOL ETHERS

Diethylene glycol<sup>2</sup>  
Diethylene glycol butyl ether  
Diethylene glycol dibutyl ether  
Diethylene glycol diethyl ether  
Diethylene glycol ethyl ether  
Diethylene glycol methyl ether  
Diethylene glycol n-hexyl ether  
Diethylene glycol phenyl ether  
Diethylene glycol propyl ether  
Dipropylene glycol  
Dipropylene glycol butyl ether  
Dipropylene glycol methyl ether  
Ethoxy triglycol  
Ethylene glycol hexyl ether  
Ethylene glycol methyl butyl ether  
Ethylene glycol monoalkyl ethers  
Ethylene glycol tert-butyl ether  
Ethylene glycol butyl ether  
Ethylene glycol dibutyl ether  
Ethylene glycol ethyl ether  
Ethylene glycol isopropyl ether  
Ethylene glycol methyl ether  
Ethylene glycol phenyl ether  
Ethylene glycol phenyl ether, Diethylene glycol phenyl ether mixture  
Ethylene glycol propyl ether  
Hexaethylene glycol  
Methoxy triglycol  
Nonyl phenol (ethoxylated)  
Nonyl phenol poly(4-12)ethoxylates  
Polyalkylene glycol butyl ether  
Polyalkylene glycols, Polyalkylene glycol monoalkyl ethers mixtures  
Polyethylene glycols  
Polyethylene glycol dimethyl ether  
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether  
Polyethylene glycol monoalkyl ether  
Polypropylene glycols  
Polypropylene glycol methyl ether  
n-Propoxypropanol  
Propylene glycol monoalkyl ether  
Propylene glycol ethyl ether  
Propylene glycol methyl ether  
Propylene glycol n-butyl ether  
Propylene glycol phenyl ether  
Propylene glycol propyl ether  
Tetraethylene glycol  
Triethylene glycol  
Triethylene glycol butyl ether  
Triethylene glycol butyl ether mixture  
Triethylene glycol ether mixture  
Triethylene glycol ethyl ether  
Triethylene glycol methyl ether

Tripropylene glycol  
Tripropylene glycol methyl ether

#### 41. ETHERS

Alkaryl polyether (C9-C20)  
Butyl ether  
2,2-Dichloroethyl ether  
Diethyl ether  
Diglycidyl ether of Bisphenol F  
Diglycidyl ether of bisphenol A  
Dimethyl furan  
1,4-Dioxane  
Diphenyl ether  
Diphenyl ether, Diphenyl phenyl ether mixture  
Ethyl ether  
Long chain alkaryl polyether (C11-C20)  
Methyl tert-butyl ether<sup>2</sup>  
Propyl ether  
Tetrahydrofuran  
1,3,5-Trioxane  
Polyether (molecular weight 2000+)

#### 42. NITROCOMPOUNDS

o-Chloronitrobenzene  
Dinitrotoluene  
Nitrobenzene  
Nitroethane  
Nitropropane  
Nitropropane, Nitroethane mixture  
Nitrotoluene

#### 43. MISCELLANEOUS WATER SOLUTIONS

Aluminum sulfate solution<sup>2</sup>  
2-Amino-2-hydroxymethyl-1,3-propanediol  
solution  
Ammonium bisulfite solution<sup>2</sup>  
Ammonium nitrate-urea solution (not containing  
ammonia)  
Ammonium polyphosphate solution  
Ammonium sulfate solution  
Ammonium thiosulfate solution  
Sulfonated polyacrylate solutions<sup>2</sup>  
Calcium bromide solution  
Calcium chloride solution  
Clay slurry  
Corn syrup  
Dextrose solution  
2,4-Dichlorophenoxyacetic acid, Diethanolamine  
salt solution  
2,4-Dichlorophenoxyacetic acid,  
Triisopropanolamine salt solution<sup>2</sup>  
Diethanolamine salt of 2,4-  
Dichlorophenoxyacetic acid solution

Diethylenetriamine pentaacetic acid,  
pentasodium salt solution  
Dodecyl diphenyl ether disulfonate solution  
Drilling brine (containing Calcium, Potassium or  
Sodium salts)  
Drilling brine (containing Zinc salts)  
Drilling mud (low toxicity) (if non-flammable or  
non-combustible)  
Ethylenediaminetetracetic acid, tetrasodium salt  
solution  
Ethylene, Vinyl acetate copolymer emulsion  
Ferric hydroxyethylethylenediaminetriacetic acid,  
trisodium salt solution<sup>2</sup>  
Fish solubles (water based fish meal extracts)  
Fructose solution  
Fumaric adduct of Rosin, water dispersion  
Hexamethylenediamine adipate solution  
N-(Hydroxyethyl)ethylenediaminetriacetic acid,  
trisodium salt solution  
Kaolin clay slurry  
Latex, liquid synthetic  
Lignin liquor  
Liquid streptomyces solubles  
N-Methylglucamine solution  
N-Methylglucamine solution (70% or less)  
Naphthenic acid, sodium salt solution  
Potassium chloride solution  
Potassium thiosulfate solution  
Rosin soap (disproportionated) solution  
Sewage sludge, treated  
Sodium alkyl sulfonate solution  
Sodium hydrogen sulfite solution  
Sodium polyacrylate solution<sup>2</sup>  
Sodium salt of Ferric  
hydroxyethylethylenediamine triacetic acid  
solution  
Sodium silicate solution<sup>2</sup>  
Sodium sulfide solution  
Sodium sulfite solution  
Sodium tartrates, Sodium succinates solution  
Sulfonated polyacrylate solutions<sup>2</sup>  
Tall oil soap (disproportionated) solution  
Tetrasodium salt of EDTA solution  
Triisopropanolamine salt of 2,4-  
Dichlorophenoxyacetic acid solution  
Urea, Ammonium nitrate solution (not containing  
Ammonia)  
Urea, Ammonium phosphate solution  
Urea solution  
Vegetable protein solution (hydrolysed)  
Water

## FOOTNOTES TO TABLE

<sup>1</sup> Because of very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (G-MTH), U.S. Coast Guard, 2100 Second Street, SW., Washington, DC 20593-0001. Telephone (202) 267-1577.

<sup>2</sup> See Table 7.3 - Exceptions to the Chart.

**TABLE 7.3  
EXCEPTIONS TO THE CHART**

1. The binary combinations listed below have been tested as prescribed in Appendix III and found not to be dangerously reactive. These combinations are exceptions to the Compatibility Chart (Figure 1) and may be stowed in adjacent tanks.

<b>Member of Reactive Group</b>	<b>Compatible with</b>		
Acetone (18)	Diethylenetriamine (7)	Tetradecylamine mixture (7)	Butyl alcohol (20)
Acetone cyanohydrin (0)	Acetic acid (4)	Ethylenediamine (7)	tert-Butyl alcohol (20)
Acrylonitrile (15)	Triethanolamine (8)		Butylene glycol (20)
1,3-Butylene glycol (20)	Morpholine (7)		Creosote (21)
1,4-Butylene glycol (20)	Ethylamine (7)		Diethylene glycol (40)
	Triethanolamine (8)		Ethyl alcohol (20)
Gamma-Butyrolactone(0)	N-Methyl-2-pyrrolidone (9)		Ethylene glycol (20)
Caustic potash, 50% or less (5)	Isobutyl alcohol (20)		Ethyl hexanol (20)
	Ethyl alcohol (20)		Glycerine (20)
	Ethylene glycol (20)		Isononyl alcohol (20)
	Isopropyl alcohol (20)		Isophorone (18)
	Methyl alcohol (20)		Methyl butyl ketone (18)
	iso-Octyl alcohol (20)		Methyl isobutyl ketone (18)
Caustic soda, 50% or less (5)	Butyl alcohol (20)		Methyl ethyl ketone (18)
	tert-Butyl alcohol, Methanol mixtures		Propyl alcohol (20)
	Decyl alcohol (20)		Propylene glycol (20)
	Iso-Decyl alcohol	Oleum (0)	Hexane (31)
	Diacetone alcohol (20)		Dichloromethane (36)
	Diethylene glycol (40)		Perchloroethylene (36)
	Ethyl alcohol (40%, whiskey) (20)	1,2-Propylene glycol (20)	Diethylenetriamine (7)
	Ethylene glycol (20)		Polyethylene polyamines (7)
	Ethylene glycol, Diethylene glycol mixture (20)		Triethylenetetramine (7)
	Ethyl hexanol (Octyl alcohol) (20)	Sodium dichromate, 70% (0)	Methyl alcohol (20)
	Methyl alcohol (20)	Sodium hydrosulfide solution (5)	Iso-Propyl alcohol (20)
	Nonyl alcohol (20)	Sulfuric acid (2)	Coconut oil (34)
	iso-Nonyl alcohol (20)		Coconut oil acid (34)
	Propyl alcohol (20)		Palm oil (34)
	Propylene glycol (20)		Tallow (34)
	Sodium chlorate (0)	Sulfuric acid, 98% or less (2)	Choice white grease tallow (34)
	iso-Tridecanol (20)		
Dodecyl and	Tall oil, fatty acid (34)		

2. The binary combinations listed below have been determined to be dangerously reactive, based on either data obtained in the literature or on laboratory testing which has been carried out in accordance with procedures prescribed in Appendix III. These combinations are exceptions to the Compatibility Chart (Figure 1) and may not be stowed in adjacent tanks.

Acetone cyanohydrin (0) is not compatible with Groups 1-12, 16, 17 and 22.

Acrolein (19) is not compatible with Group 1, Non-Oxidizing Mineral Acids.

Acrylic acid (4) is not compatible with Group 9, Aromatic Amines.

Acrylonitrile (15) is not compatible with Group 5 (Caustics)

Alkylbenzenesulfonic acid (0) is not compatible with Groups 1-3, 5-9, 15, 16, 18, 19, 30, 34, 37, and strong oxidizers.

Allyl alcohol (15) is not compatible with Group 12, Isocyanates.

Alkyl (C7-C9) nitrates (34) is not compatible with Group 1, Non-oxidizing Mineral Acids.

Aluminum sulfate solution (43) is not compatible with Groups 5-11.

Ammonium bisulfite solution (43) is not compatible with Groups 1, 3, 4, and 5.

Benzenesulfonyl chloride (0) is not compatible with Groups 5-7, and 43.

1,4-Butylene glycol (20) is not compatible with Groups 1-9.

gamma-Butyrolactone (0) is not compatible with Groups 1-9.

Caustic soda solution, 50% or less (5) is not compatible with 1,4-Butylene glycol (20).

Crotonaldehyde (19) is not compatible with Group 1, Non-Oxidizing Mineral Acids.

Cyclohexanone, Cyclohexanol mixture (18) is not compatible with Group 12, Isocyanates.

2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt solution (43) is not compatible with Group 3, Nitric acid.

2,4-Dichlorophenoxyacetic acid, Dimethylamine salt solution (0) is not compatible with Groups 1-5, 11, 12, and 16.

Dimethyl hydrogen phosphite (34) is not compatible with Groups 1 and 4.

Dimethyl naphthalene sulfonic acid, sodium salt solution (34) is not compatible with Group 12, Formaldehyde, and strong oxidizing agents.

Dodecylbenzenesulfonic acid (0) is not compatible with oxidizing agents and Groups 1, 2, 3, 5, 6, 7, 8, 9, 15, 16, 18, 19, 30, 34, and 37.

Ethylenediamine (7) is not compatible with Ethylene dichloride (36).

Ethylene dichloride (36) is not compatible with Ethylenediamine (7).

Ethylidene norbornene (30) is not compatible with Groups 1-3 and 5-8.

2-Ethyl-3-propylacrolein (19) is not compatible with Group 1, Non-Oxidizing Mineral Acids.

Ferric hydroxyethylethylenediamine triacetic acid, Sodium salt solution (43) is not compatible with Group 3, Nitric acid.

Fish oil (34) is not compatible with Sulfuric acid (2).

Formaldehyde (over 50%) in Methyl alcohol (over 30%) (19) is not compatible with Group 12, Isocyanates.

Formic acid (4) is not compatible with Furfural alcohol (20).

Furfuryl alcohol (20) is not compatible with Group 1, Non-Oxidizing Mineral Acids and Formic acid (4).

2-Hydroxyethyl acrylate is not compatible with Groups 2, 3, 5-8 and 12.

Isophorone (18) is not compatible with Group 8, Alkanolamines.

Magnesium chloride solution (0) is not compatible with Groups 2, 3, 5, 6 and 12.

Mesityl oxide (18) is not compatible with Group 8, Alkanolamines.

Methacrylonitrile (15) is not compatible with Group 5 (Caustics).

Methyl tert-butyl ether (41) is not compatible with Group 1, Non-oxidizing Mineral Acids.

Naphtha, cracking fraction (33) is not compatible with strong acids, caustics or oxidizing agents.

o-Nitrophenol (0) is not compatible with Groups 2, 3, and 5-10.

Octyl nitrates (all isomers) see Alkyl (C7-C9) nitrates.

Oleum (0) is not compatible with Sulfuric acid (2) and 1,1,1-Trichloroethane (36).

Phthalate based polyester polyol (0) is not compatible with group 2, 3, 5, 7 and 12.

Pentene, Miscellaneous hydrocarbon mixtures (30) are not compatible with strong acids or oxidizing agents.

Polyglycerine, Sodium salts solution (20) is not compatible with Groups 1, 4, 11, 16, 17, 19, 21, and 22.

Sodium acetate, Glycol, Water mixture (1% or less Sodium hydroxide) (34) is not compatible with Group 12 (Isocyanates).

Sodium chlorate solution (50% or less) (0) is not compatible with Groups 1-3, 5, 7, 8, 10, 12, 13, 17, and 20.

Sodium dichromate solution (70% or less) (0) is not compatible with Groups 1-3, 5, 7, 8, 10, 12, 13, 17, and 20.

Sodium dimethyl naphthalene sulfonate solution (34) is not compatible with Group 12, Formaldehyde and strong oxidizing agents.

Sodium hydrogen sulfide, Sodium carbonate solution (0) is not compatible with Groups 6 (Ammonia) and 7 (Aliphatic amines).

Sodium hydrosulfide (5) is not compatible with Groups 6 (Ammonia) and 7 (Aliphatic amines).

Sodium hydrosulfide, Ammonium sulfide solution (5) is not compatible with Groups 6 (Ammonia) and 7 (Aliphatic amines).

Sodium polyacrylate solution (43) is not compatible with Group 3, Nitric Acid.

Sodium salt of Ferric hydroxyethylethylenediamine triacetic acid solution (43) is not compatible with Group 3, Nitric acid.

Sodium silicate solution (43) is not compatible with Group 3, Nitric acid.

Sodium sulfide, hydrosulfide solution (0) is not compatible with Groups 6 (Ammonia) and 7 (Aliphatic amines).

Sodium thiocyanate (56% or less) (0) is not compatible with Groups 1-4.

Sulfonated polyacrylate solution (43) is not compatible with Group 5 (Caustics).

Sulfuric acid (2) is not compatible with Fish oil (34), or Oleum (0).

Tallow fatty acid (34) is not compatible with Group 5, Caustics.

1,1,1-Trichloroethane (36) is not compatible with Oleum (0).

Trichlorethylene (36) is not compatible with Group 5, Caustics.

Triethyl phosphite (34) is not compatible with Groups 1 and 4.

Trimethyl phosphite (34) is not compatible with Groups 1 and 4.

1,3,5-Trioxane (41) is not compatible with Group 1 (Non-oxidizing mineral acids) and Group 4 (Organic acids).

## 8. INDEX OF SYNONYMS

SYNONYM	COMPOUND NAMES
300° oil	= Oils, miscellaneous: mineral seal
Aatrex herbicide	= Atrazine
Absorbent oil	= Oils, miscellaneous: absorption
Accelerator HX	= N-Ethylcyclohexylamine
Acetal	= Acetal
Acetaldehyde diethylacetal	= Acetal
Acetaldehyde, chloro-	= Chloroacetaldehyde
Acetaldehyde, trichloro	= Trichloroacetaldehyde
Acetaldehyde	= Acetaldehyde
p-Acetaldehyde	= Paraldehyde
Acetate C-7	= Heptyl acetate
Acetate C-9	= Nonyl acetate
Bis (Acetate) dioxouranium	= Uranyl acetate
(Acetato-o) phenyl mercury	= Phenylmercuric acetate
Acetatophenylmercury	= Phenylmercuric acetate
Acetic acid anhydride	= Acetic anhydride
Acetic acid n-amyl ester	= Amyl acetate (all isomers)
Acetic acid, 3-methoxybutyl ester	= 3-Methoxybutyl acetate
Acetic acid, ammonium salt	= Ammonium acetate
Acetic acid, benzyl ester	= Benzyl acetate
Acetic acid, chromium salt	= Chromic acetate
Acetic acid, cupric salt	= Copper acetate
Acetic acid, cyclohexyl ester	= Cyclohexyl acetate
Acetic acid, dimethylamide	= Dimethylacetamide
Acetic acid, dimethylamide	= N,N-Dimethyl acetamide solution (40% or less)
Acetic acid, ethyl ester	= Ethyl acetate
Acetic acid, fluoro-, sodium salt	= Sodium fluoroacetate
Acetic acid, heptyl ester	= Heptyl acetate
Acetic acid, hexyl ester	= Hexyl acetate
Acetic acid, isobutyl ester	= Isobutyl acetate
Acetic acid, isopropyl ester	= Isopropyl acetate
Acetic acid, methyl ester	= Methyl acetate
Acetic acid, n-butyl ester	= n-Butyl acetate
Acetic acid, n-nonyl ester	= Nonyl acetate
Acetic acid, n-propyl ether	= n-Propyl acetate
Acetic acid, nickel (II) salt	= Nickel acetate
Acetic acid, phenylmethyl ester	= Benzyl acetate
Acetic acid, sec-butyl ester	= sec-Butyl acetate
Acetic acid, tert-butyl ester	= tert-Butyl acetate
Acetic acid, thallium (I) salt	= Thallium acetate
Acetic acid, thallos salt	= Thallium acetate
Acetic acid, zinc salt	= Zinc acetate
Acetic acid	= Acetic acid
Acetic aldehyde	= Acetaldehyde
Acetic anhydride	= Acetic anhydride
Acetic ester	= Ethyl acetate
Acetic ether	= Ethyl acetate
Acetoacetic acid, ethyl ester	= Ethyl acetoacetate
Acetoacetic acid, methyl ester	= Methyl acetoacetate
Acetoacetic ester	= Ethyl acetoacetate



<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Acetocyanohydrin	= Lactonitrile solution (80% or less)
Acetone cyanohydrin	= Acetone cyanohydrin
Acetone	= Acetone
Acetonitrile	= Acetonitrile
Acetonyl bromide	= Bromoacetone
Acetophenone	= Acetophenone
alpha-Acetoxytoluene	= Benzyl acetate
Acetyl bromide	= Acetyl bromide
Acetyl chloride	= Acetyl chloride
Acetyl hydroperoxide	= Peracetic acid
Acetyl oxide	= Acetic anhydride
Acetyl peroxide solution	= Acetyl peroxide solution
Acetylacetone	= Acetylacetone
Acetylbenzene	= Acetophenone
Acetylene dichloride	= 1,2-Dichloroethylene
Acetylene tetrachloride	= Tetrachloroethane
Acetylene	= Acetylene
Acetylenogen	= Calcium carbide
Acetylmethyl bromide	= Bromoacetone
Acid ammonium carbonate	= Ammonium bicarbonate
Acid ammonium fluoride	= Ammonium bifluoride
Acraldehyde	= Acrolein
Acridine	= Acridine
Acrolein	= Acrolein
Acrylaldehyde	= Acrolein
Acrylamide solution	= Acrylamide solution
Acrylic acid amide (50%)	= Acrylamide solution
Acrylic acid, 2-ethylhexylester	= 2-Ethylhexyl acrylate
Acrylic acid, decyl ester	= n-Decyl acrylate
Acrylic acid, ethyl ester	= Ethyl acrylate
Acrylic acid, isobutyl ester	= iso-butyl acrylate
Acrylic acid, methyl ester	= Methyl acrylate
Acrylic acid, n-butyl ester	= n-Butyl acrylate
Acrylic acid	= Acrylic acid
Acrylic aldehyde	= Acrolein
Acrylic amide 50%	= Acrylamide solution
Acrylonitrile	= Acrylonitrile
Activated charcoal	= Charcoal
Adacene-12	= 1-Dodecene
Adipic acid, bis (2-ethylhexyl) ester	= Di-(2-ethylhexyl) adipate
Adipic acid, bis (2-ethylhexyl) ester	= Dioctyl adipate
Adipic acid, dimethyl ester	= Dimethyl adipate
Adipic acid	= Adipic acid
Adipinic acid	= Adipic acid
Adipol 2EH	= Dioctyl adipate
Adiponitrile	= Adiponitrile
Adronal	= Cyclohexanol
Aerosol surfactant	= Dioctyl sodium sulfosuccinate
Aerothene	= Trichloroethane
AIP	= Aluminum phosphide
Alaninol	= 2-Propanolamine
Albone	= Hydrogen peroxide
Albus	= Mercuric ammonium chloride
Alcohol C-10	= n-Decyl alcohol

SYNONYM	COMPOUND NAMES
Alcohol C-11 (undecylic)	= Undecanol
Alcohol C-8	= Octanol
Alcohol	= Ethyl alcohol
Aldehyde-collidine	= Methylethylpyridine
Aldehyde C-10	= Decaldehyde
Aldehydine	= Methylethylpyridine
Aldifen	= 2,4-Dinitrophenol
Aldrin	= Aldrin
Alfa-tox	= Diazinon
Alimet	= 2-Hydroxy-4-(methylthio)-butanoic acid
Alkaway liquid alkaline deruster	= Boiler compound, liquid
Alkron	= Methyl parathion
Alkyl(C <sub>11</sub> – C <sub>17</sub> )benzenesulfonic acid	= Alkyl(C <sub>11</sub> . C <sub>17</sub> )benzenesulfonic acid
Alkylbenzenesulfonic acid, sodium salt	= Sodium alkylbenzenesulfonates
Allene-methylacetylene mixture	= Methyl acetylene, propadiene mixture
Allomaleic acid	= Fumaric acid
Allyl alcohol	= Allyl alcohol
Allyl aldehyde	= Acrolein
Allyl bromide	= Allyl bromide
Allyl chloride	= Allyl chloride
Allyl chlorocarbonate	= Allyl chloroformate
Allyl chloroformate	= Allyl chloroformate
Allyl trichloride	= 1,2,3-Trichloropropane
Allylethylene	= 1,4-Pentadiene
Allylsilicone trichloride	= Allyltrichlorosilane
Allyltrichlorosilane	= Allyltrichlorosilane
alpha,alpha,alpha-trifluoro-2,6-Dinitro- n,n-dipropyl-p-toluidine	= Trifluralin
Alrowet D65	= Dioctyl sodium sulfosuccinate
Alum	= Aluminum sulfate
Aluminum chloride solution	= Aluminum chloride solution
Aluminum chloride	= Aluminum chloride
Aluminum ethyl dichloride	= Ethylaluminum dichloride
Aluminum fluoride	= Aluminum fluoride
Aluminum monophosphide	= Aluminum phosphide
Aluminum nitrate nonahydrate	= Aluminum nitrate
Aluminum nitrate	= Aluminum nitrate
Aluminum phosphide	= Aluminum phosphide
Aluminum sulfate solution	= Aluminum sulfate solution
Aluminum sulfate	= Aluminum sulfate
Aluminum triethyl	= Triethylaluminum
Aluminum triisobutyl	= Triisobutylaluminum
Amchlor	= Ammonium chloride
Amchloride	= Ammonium chloride
American palm kernel oil	= Oils, edible: tucum
3-Amino-1-methylbenzene	= m-Toluidine
2-Amino-1-methylbenzene	= o-Toluidine
4-Amino-1-methylbenzene	= p-Toluidine
2-Amino-1-propanol	= 2-Propanolamine
3-Amino-1-propanol	= n-Propanolamine
1-Amino-2-ethylhexane	= 2-Ethylhexylamine
1-Amino-2-fluorobenzene	= 2-Fluoroaniline
2-Amino-2-methyl-1-propanol (90% or less)	= 2-Amino-2-methyl-1-propanol (90% or less)

SYNONYM	COMPOUND NAMES
1-Amino-2-methylpropane	= Isobutylamine
2-Amino-2-methylpropane	= tert-Butylamine
1-Amino-2-nitrobenzene	= 2-Nitroaniline
1-Amino-2-propanol	= Monoisopropanolamine
1-Amino-4-chlorobenzene	= p-chloroaniline
1-Amino-4-fluorobenzene	= 4-Fluoroaniline
1-Amino-4-nitrobenzene	= 4-Nitroaniline
2-Amino-5-chlorotoluene	= 4-Chloro-o-toluidine
Aminobenzene	= Aniline
1-Aminobutane	= n-Butylamine
Aminocaproic lactam	= Caprolactam
Aminocyclohexane	= Cyclohexylamine
Aminodimethylbenzene	= 2,6-Dimethylaniline
2-Aminodimethylethanol	= 2-Amino-2-methyl-1-propanol (90% or less)
Aminoethane	= Ethylamine
2-Aminoethanol	= Monoethanolamine
beta-Aminoethyl alcohol	= Monoethanolamine
N-Aminoethyl piperazine	= N-Aminoethyl piperazine
Bis-(2-Aminoethyl) amine	= Diethylenetriamine
2-[(2-Aminoethyl) amino] ethanol	= Aminoethylethanolamine
N-(2-Aminoethyl) ethanolamine	= Aminoethylethanolamine
N-(2-Aminoethyl) piperazine	= N-Aminoethyl piperazine
1-(2-Aminoethyl) piperazine	= N-Aminoethyl piperazine
N,N'-bis-(2-Aminoethyl)ethylenediamine	= Triethylenetetramine
Aminoethylethanolamine	= Aminoethylethanolamine
Aminoform	= Hexamethylenetetramine
2-Aminoisobutane	= tert-Butylamine
beta-Aminoisobutanol	= 2-Amino-2-methyl-1-propanol (90% or less)
Aminomercuric chloride	= Mercuric ammonium chloride
Aminomethane	= Methylamine
Aminomethane	= Methylamine solution
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	= Isophorone diamine
1-Aminonaphthalene	= 1-Naphthylamine
2-Aminopropane	= Isopropylamine
1-Aminopropane	= n-Propylamine
4-Aminopyridine	= 4-Aminopyridine
p-Aminopyridine	= 4-Aminopyridine
alpha-Aminotoluene	= Benzylamine
3-Aminotoluene	= m-Toluidine
2-Aminotoluene	= o-Toluidine
4-Aminotoluene	= p-Toluidine
Ammate	= Ammonium sulfamate
Ammoneric	= Ammonium chloride
Ammonia soap	= Ammonium oleate
Ammonia solution	= Ammonium hydroxide (<28% aqueous ammonia)
Ammonia water	= Ammonium hydroxide (<28% aqueous ammonia)
Ammonia, anhydrous	= Ammonia, anhydrous
Ammoniated mercury	= Mercuric ammonium chloride
Ammonioformaldehyde	= Hexamethylenetetramine

**SYNONYM****COMPOUND NAMES**

Ammonium acetate	= Ammonium acetate
Ammonium acid fluoride	= Ammonium bifluoride
Ammonium amidosulfonate	= Ammonium sulfamate
Ammonium amidosulphate	= Ammonium sulfamate
Ammonium aminofornate	= Ammonium carbamate
Ammonium benzoate	= Ammonium benzoate
Ammonium bicarbonate	= Ammonium bicarbonate
Ammonium bichromate	= Ammonium dichromate
Ammonium bifluoride	= Ammonium bifluoride
Ammonium bisulfite	= Ammonium bisulfite
Ammonium borofluoride	= Ammonium fluoborate
Ammonium bromide	= Ammonium bromide
Ammonium carbamate	= Ammonium carbamate
Ammonium carbazoate	= Ammonium picrate, wet
Ammonium carbonate	= Ammonium carbonate
Ammonium chloride	= Ammonium chloride
Ammonium chromate	= Ammonium chromate
Ammonium citrate, dibasic	= Ammonium citrate, dibasic
Ammonium citrate, dibasic	= Ammonium citrate, dibasic
Ammonium citrate	= Ammonium citrate, dibasic
Ammonium cupric sulfate	= Copper sulfate, ammoniated
Ammonium decaborate octahydrate	= Ammonium pentaborate
Ammonium dichromate	= Ammonium dichromate
Ammonium disulfatonickelate (II)	= Nickel ammonium sulfate
Ammonium ferric citrate	= Ferric ammonium citrate
Ammonium ferric oxalate trihydrate	= Ferric ammonium oxalate
Ammonium ferrous sulfate	= Ferrous ammonium sulfate
Ammonium fluoborate	= Ammonium fluoborate
Ammonium fluoride	= Ammonium fluoride
Ammonium fluorosilicate	= Ammonium silicofluoride
Ammonium formate	= Ammonium formate
Ammonium gluconate	= Ammonium gluconate
Ammonium hydrogen carbonate	= Ammonium bicarbonate
Ammonium hydrogen difluoride	= Ammonium bifluoride
Ammonium hydrogen fluoride	= Ammonium bifluoride
Ammonium hydrogen sulfide solution	= Ammonium sulfide
Ammonium hydrogen sulfite	= Ammonium bisulfite
Ammonium hydrosulfite	= Ammonium bisulfite
Ammonium hydroxide (<28% aqueous ammonia)	= Ammonium hydroxide (<28% aqueous ammonia)
Ammonium hypo solution	= Ammonium thiosulfate solution (60% or less)
Ammonium hypophosphite	= Ammonium hypophosphite
Ammonium hyposulfite solution	= Ammonium thiosulfate solution (60% or less)
Ammonium hyposulfite	= Ammonium thiosulfate
Ammonium iodide	= Ammonium iodide
Ammonium lactate syrup	= Ammonium lactate
Ammonium lactate	= Ammonium lactate
Ammonium lauryl sulfate	= Ammonium lauryl sulfate
Ammonium molybdate	= Ammonium molybdate
Ammonium monosulfite	= Ammonium bisulfite
Ammonium muriate	= Ammonium chloride
Ammonium nickel sulfate	= Nickel ammonium sulfate

**SYNONYM****COMPOUND NAMES**

Ammonium nitrate-phosphate mixture	=	Ammonium nitrate-phosphate mixture
Ammonium nitrate-sulfate mixture	=	Ammonium nitrate-sulfate mixture
Ammonium nitrate-urea solution	=	Ammonium nitrate-urea solution
Ammonium nitrate	=	Ammonium nitrate
Ammonium oleate	=	Ammonium oleate
Ammonium oxalate hydrate	=	Ammonium oxalate
Ammonium oxalate	=	Ammonium oxalate
Ammonium pentaborate tetrahydrate	=	Ammonium pentaborate
Ammonium pentaborate	=	Ammonium pentaborate
Ammonium pentachlorozincate	=	Zinc ammonium chloride
Ammonium perchlorate	=	Ammonium perchlorate
Ammonium peroxydisulfate	=	Ammonium persulfate
Ammonium persulfate	=	Ammonium persulfate
Ammonium phosphate, dibasic	=	Ammonium phosphate
Ammonium phosphate	=	Ammonium phosphate
Ammonium picrate (yellow)	=	Ammonium picrate, wet
Ammonium picrate, wet	=	Ammonium picrate, wet
Ammonium picronitrate	=	Ammonium picrate, wet
Ammonium rhodanate	=	Ammonium thiocyanate
Ammonium rhodanide	=	Ammonium thiocyanate
Ammonium silicofluoride	=	Ammonium silicofluoride
Ammonium stearate dispersion	=	Ammonium stearate
Ammonium stearate	=	Ammonium stearate
Ammonium sulfamate	=	Ammonium sulfamate
Ammonium sulfate	=	Ammonium sulfate
Ammonium sulfhydrate solution	=	Ammonium sulfide
Ammonium sulfide solution	=	Ammonium sulfide
Ammonium sulfide	=	Ammonium sulfide
Ammonium sulfite	=	Ammonium sulfite
Ammonium sulfocyanate	=	Ammonium thiocyanate
Ammonium sulfocyanide	=	Ammonium thiocyanate
Ammonium tartrate	=	Ammonium tartrate
Ammonium tetrafluoborate	=	Ammonium fluoborate
Ammonium thiocyanate	=	Ammonium thiocyanate
Ammonium thiosulfate solution (60% or less)	=	Ammonium thiosulfate solution (60% or less)
Ammonium thiosulfate	=	Ammonium thiosulfate
Ammonium trioxalatoferrate(III) trihydrate	=	Ferric ammonium oxalate
Ammonium zinc chloride	=	Zinc ammonium chloride
Amorphous phosphorus	=	Phosphorus, red
AMP-95	=	2-Amino-2-methyl-1-propanol (90% or less)
AMP	=	2-Amino-2-methyl-1-propanol (90% or less)
AMS	=	Ammonium sulfamate
Amyl acetate (all isomers)	=	Amyl acetate (all isomers)
Amyl acetate, mixed isomers	=	Amyl acetate (all isomers)
sec-Amyl acetate	=	sec-Amyl acetate
tert-Amyl acetate	=	tert-Amyl acetate
1-Amyl alcohol	=	n-Amyl alcohol
n-Amyl alcohol	=	n-Amyl alcohol
Amyl aldehyde	=	n-Valeraldehyde
Amyl aldehyde	=	Valeraldehyde
n-Amyl chloride	=	n-Amyl chloride

SYNONYM	COMPOUND NAMES
Amyl chloride	= n-Amyl chloride
Amyl ethyl ketone	= Ethyl amyl ketone
Amyl hydrosulfide	= n-Amyl mercaptan
n-Amyl mercaptan	= n-Amyl mercaptan
n-Amyl methyl ketone	= n-Amyl methyl ketone
n-Amyl nitrate	= n-Amyl nitrate
iso-Amyl nitrite	= iso-Amyl nitrite
Amyl nitrite	= iso-Amyl nitrite
Amyl phthalate	= Amyl phthalate
n-Amyl propionate	= n-Pentyl propionate
Amyl sulfhydrate	= n-Amyl mercaptan
Amyl thioalcohol	= n-Amyl mercaptan
n-Amylcarbinol	= 1-Hexanol
Amylcarbinol	= 1-Hexanol
alpha-n-Amylene	= 1-Pentene
n-Amyltrichlorosilane	= n-Amyltrichlorosilane
Anacardic acid	= Oil, misc: cashew nut shell
Anesthesia ether	= Ethyl ether
Anesthetic ether	= Ethyl ether
Anglislite	= Lead sulfate
"Anhydride" of ammonium carbonate	= Ammonium carbamate
Anhydrone	= Magnesium perchlorate
Anhydrous aluminum chloride	= Aluminum chloride
Anhydrous chloral	= Trichloroacetaldehyde
Aniline oil	= Aniline
Aniline, 2,6-diethyl	= 2,6-Diethylaniline
Aniline, 2,6-dimethyl	= 2,6-Dimethylaniline
Aniline	= Aniline
Anilinobenzene	= Diphenylamine
Anilinomethane	= N-Methylaniline
Animal carbon	= Charcoal
o-Anisic acid	= Methyl salicylate
Anisoyl chloride	= Anisoyl chloride
p-Anisoyl chloride	= Anisoyl chloride
Anol	= Cyclohexanol
Anone	= Cyclohexanone
Ansar	= Cacodylic acid
Ansul ether 12'	= Ethylene glycol dimethyl ether
Ansul ether 121	= Ethylene glycol dimethyl ether
Anthon	= Trichlorfon
Anthracene	= Anthracene
Anthracin	= Anthracene
Antimonous bromide	= Antimony tribromide
Antimony (III) chloride	= Antimony trichloride
Antimony (V) chloride	= Antimony pentachloride
Antimony pentachloride	= Antimony pentachloride
Antimony pentafluoride	= Antimony pentafluoride
Antimony perchloride	= Antimony pentachloride
Antimony potassium tartrate	= Antimony potassium tartrate
Antimony tribromide	= Antimony tribromide
Antimony trichloride	= Antimony trichloride
Antimony trifluoride	= Antimony trifluoride
Antimony trioxide	= Antimony trioxide
Aouara oil	= Oils, edible: tucum

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
APO	= Tris(Aziridinyl)phosphine oxide
Aqua ammonia	= Ammonium hydroxide (<28% aqueous ammonia)
Aquacide	= Diquat
Aqueous ammonia	= Ammonium hydroxide (<28% aqueous ammonia)
Arcosolv	= Dipropylene glycol methyl ether
Arcton 6	= Dichlorodifluoromethane
Arcton 9	= Trichlorofluoromethane
Argentous fluoride	= Silver fluoride
Argentous oxide	= Silver oxide
Arizole	= Oil, misc: pine
Arochlor	= Polychlorinated biphenyl
Arosol	= Ethylene glycol phenyl ether
Arsecodile	= Sodium cacodylate
Arsenic acid anhydride	= Arsenic pentaoxide
Arsenic acid	= Arsenic acid
Arsenic chloride	= Arsenic trichloride
Arsenic disulfide	= Arsenic disulfide
Arsenic oxide	= Arsenic pentaoxide
Arsenic pentaoxide	= Arsenic pentaoxide
Arsenic pentoxide	= Arsenic acid
Arsenic pentoxide	= Arsenic pentaoxide
Arsenic sesquioxide	= Arsenic trioxide
Arsenic trichloride	= Arsenic trichloride
Arsenic trioxide	= Arsenic trioxide
Arsenic trisulfide	= Arsenic trisulfide
Arsenic yellow	= Arsenic trisulfide
Arsenic, metallic	= Arsenic
Arsenic, solid	= Arsenic
Arsenic	= Arsenic
Arsenious acid, potassium salt	= Potassium arsenite
Arsenious chloride	= Arsenic trichloride
Arsenous acid anhydride	= Arsenic trioxide
Arsenous acid, calcium salt	= Calcium arsenite
Arsenous acid	= Arsenic trioxide
Arsenous chloride	= Arsenic trichloride
Arsenous oxide	= Arsenic trioxide
Arsicodile	= Sodium cacodylate
Arsycodile	= Sodium cacodylate
Arthodibrom	= Naled
Artic	= Methyl chloride
Artificial cinnabar	= Mercuric sulfide
Asphalt blending stocks: roofers flux	= Asphalt blending stocks: roofers flux
Asphalt blending stocks: straight run residue	= Asphalt blending stocks: straight run residue
Asphalt cements	= Asphalt
Asphalt	= Asphalt
Asphaltic bitumen	= Asphalt
Asphaltum oil	= Asphalt blending stocks: roofers flux
Asphaltum	= Asphalt blending stocks: roofers flux
ATE	= Triethylaluminum
Atrazine	= Atrazine
Australene	= Pinene

SYNONYM	COMPOUND NAMES
Avitrol	= 4-Aminopyridine
Avlothane	= Hexachloroethane
Avolin	= Dimethyl phthalate
10-Azaanthracene	= Acridine
Azacycloheptane	= Hexamethylenimine
1-Azanaphthalene	= Quinoline
Azinphos methyl	= Azinphos methyl
Azirane	= Ethyleneimine
Aziridine	= Ethyleneimine
Tris(1-AziridinyI) phosphine oxide	= Tris(AziridinyI)phosphine oxide
Tris(AziridinyI)phosphine oxide	= Tris(AziridinyI)phosphine oxide
Azoic diazo component 37	= 4-Nitroaniline
Azoic diazo component 6	= 2-Nitroaniline
Banana oil	= Isoamylacetate
Banana oil	= sec-Amyl acetate
Banvel D	= Dicamba
Barium binoxide	= Barium peroxide
Barium carbonate	= Barium carbonate
Barium chlorate monohydrate	= Barium chlorate
Barium chlorate	= Barium chlorate
Barium cyanide solid	= Barium cyanide
Barium cyanide	= Barium cyanide
Barium dioxide	= Barium peroxide
Barium nitrate	= Barium nitrate
Barium perchlorate trihydrate	= Barium perchlorate
Barium perchlorate	= Barium perchlorate
Barium permanganate	= Barium permanganate
Barium peroxide	= Barium peroxide
Barium superoxide	= Barium peroxide
Basic bismuth choride	= Bismuth oxychloride
Basic copper acetate	= Copper subacetate
Basic zirconium chloride	= Zirconium oxychloride
Battery acid	= Sulfuric acid
Bay 37344	= Mercaptodimethur
Bayer 13/59	= Trichlorfon
Bearing oil	= Oils, miscellaneous: spindle
Beet sugar	= Sucrose
Benzal chloride	= Benzal chloride
Benzaldehyde	= Benzaldehyde
1-Benzazine	= Quinoline
Benzenamine	= Aniline
Benzene-1,3-dicarboxylic acid	= Isophthalic acid
Benzene chloride	= Chlorobenzene
1,2-Benzene dicarboxylic acid, di-(2-methylpropyl)ester	= Diisobutyl phthalate
Benzene fluoride	= Fluorobenzene
gamma-Benzene hexachloride	= gamma-Benzene hexachloride
Benzene phosphorus dichloride	= Benzene phosphorus dichloride
Benzene phosphorus thiodichloride	= Benzene phosphorus thiodichloride
Benzene sulfochloride	= Benzenesulfonyl chloride
Benzene sulfonechloride	= Benzenesulfonyl chloride
Benzene, 1-chloro-2-methyl	= o-Chlorotoluene
Benzene, 1,2,3-trichloro-	= 1,2,3-Trichlorobenzene
Benzene, 1,2,4-trichloro-	= 1,2,4-Trichlorobenzene



<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Benzene, diisopropyl	= Diisopropylbenzene (all isomers)
Benzene, hexachloro-	= Hexachlorobenzene
Benzene, propyl	= n-Propylbenzene
Benzene	= Benzene
Benzeneamine, 2,6-diethyl- (9ci)	= 2,6-Diethylaniline
Benzenecarbinol	= Benzyl alcohol
Benzenecarbonyl chloride	= Benzoyl chloride
Benzenecarboxylic acid	= Benzoic acid
1,2-Benzenedicarboxylic acid anhydride	= Phthalic anhydride
1,2-Benzenedicarboxylic acid, di-isononyl ester	= Diisononyl phthalate
1,2-Benzenedicarboxylic acid, di-undecyl ester	= Diundecyl phthalate
1,2-Benzenedicarboxylic acid, diethyl ester	= Diethyl phthalate
1,2-Benzenedicarboxylic acid, dipentyl ester	= Amyl phthalate
1,2-Benzenediol	= Catechol
1,4-Benzenediol	= Hydroquinone
1,3-Benzenediol	= Resorcinol
Benzenesulfochloride	= Benzenesulfonyl chloride
Benzenesulfonic (acid) chloride	= Benzenesulfonyl chloride
Benzenesulfonyl chloride	= Benzenesulfonyl chloride
Benzenethiol	= Benzenethiol
Benzenethiophosphonyl chloride	= Benzene phosphorus thiodichloride
1,2,3-Benzenetriol	= Pyrogallol
Benzidine	= Benzidine
Benzinoform	= Carbon tetrachloride
Benzo (b) pyridine	= Quinoline
Benzo (b) quinoline	= Acridine
Benzoflex 9-88 SG	= Dipropylene glycol dibenzoate
Benzoflex 9-88	= Dipropylene glycol dibenzoate
Benzoflex 9-98	= Dipropylene glycol dibenzoate
Benzoic acid nitrile	= Benzonitrile
Benzoic acid, 2-methoxy-	= Methyl salicylate
Benzoic acid, ammonium salt	= Ammonium benzoate
Benzoic acid, methyl ester	= Methyl benzoate
Benzoic acid	= Benzoic acid
Benzoic aldehyde	= Benzaldehyde
Benzol	= Benzene
Benzole	= Benzene
Benzonitrile	= Benzonitrile
Benzophenone	= Benzophenone
p-Benzoquinone	= p-Benzoquinone
Benzoquinone	= p-Benzoquinone
1,4-Benzoquinone	= p-Benzoquinone
2-Benzothiazolethiol, sodium salt	= Sodium 2-mercaptobenzothiazol solution
2-(3h)-Benzothiazolethione, sodium salt	= Sodium 2-mercaptobenzothiazol solution
Benzoyl benzene	= Benzophenone
Benzoyl chloride	= Benzoyl chloride
Benzoyl peroxide	= Dibenzoyl peroxide
Benzoyl superoxide	= Dibenzoyl peroxide
Benzyl acetate	= Benzyl acetate
Benzyl alcohol	= Benzyl alcohol

SYNONYM	COMPOUND NAMES
Benzyl bromide	= Benzyl bromide
Benzyl chloride	= Benzyl chloride
Benzyl chlorocarbonate	= Benzyl chloroformate
Benzyl chloroformate	= Benzyl chloroformate
Benzyl dichloride	= Benzal chloride
Benzyl dimethylamine	= Benzyl dimethylamine
Benzyl ethanoate	= Benzyl acetate
Benzyl ether	= Dibenzyl ether
Benzyl n-butyl phthalate	= Butyl benzyl phthalate
Benzylamine	= Benzylamine
Benzylcarbonyl chloride	= Benzyl chloroformate
Benzyl dimethyloctadecylammonium chloride	= Benzyl dimethyloctadecylammonium chloride
Benzyl dimethylstearyl ammonium chloride	= Benzyl dimethylstearyl ammonium chloride
Benzylene chloride	= Benzal chloride
Benzylidene chloride	= Benzal chloride
Benzyltrimethylammonium chloride	= Benzyltrimethylammonium chloride
Beryllia	= Beryllium oxide
Beryllium chloride	= Beryllium chloride
Beryllium fluoride	= Beryllium fluoride
Beryllium nitrate trihydrate	= Beryllium nitrate
Beryllium nitrate	= Beryllium nitrate
Beryllium oxide	= Beryllium oxide
Beryllium sulfate tetrahydrate	= Beryllium sulfate
Beryllium sulfate	= Beryllium sulfate
Beryllium	= Beryllium
beta-trichloroethane	= 1,1,2-Trichloroethane
Betraprone	= beta-Propiolactone
Betula or gaultheria oil	= Methyl salicylate
BHC	= gamma-Benzene hexachloride
p,p'-Bianiline	= Benzidine
Bibenzene	= Diphenyl
Bichrome	= Potassium dichromate
Bieberite	= Cobalt sulfate
Biethylene	= Butadiene
Biformyl	= Glyoxal
Bioflex 91	= Dinonyl phthalate
(1,1'-Biphenyl)-4,4'-diamine	= Benzidine
Biphenyl	= Diphenyl
1,1'-Biphenyl	= Diphenyl
Bis(2-ethylhexyl) adipate	= Di-(2-ethylhexyl) adipate
Bis(glycinato) copper	= Copper glycinate
Bis(methylcyclopentadiene)	= Methylcyclopentadiene dimer
Bismuth chloride oxide	= Bismuth oxychloride
Bismuth oxychloride	= Bismuth oxychloride
Bismuth subchloride	= Bismuth oxychloride
Bismuthyl chloride	= Bismuth oxychloride
Bisphenol A - epichlorohydrin condensate	= Bisphenol A diglycidyl ether
Bisphenol A diglycidyl ether	= Bisphenol A diglycidyl ether
Bisphenol A	= Bisphenol A
Bitumen	= Asphalt
Bivinyll	= Butadiene

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Black leaf 40 (40% water solution)	= Nicotine sulfate
Bladan	= Tetraethyl pyrophosphate
Bleach	= Sodium hypochlorite solution
Blue oil	= Aniline
Blue verdigris	= Copper subacetate
Blue vitriol	= Copper sulfate
Boiler compound, liquid	= Boiler compound, liquid
Boletic acid	= Fumaric acid
Boracic acid	= Boric acid
Borax, anhydrous	= Sodium borate
Boric acid	= Boric acid
Borohydride	= Sodium borohydride
Borohydride	= Sodium hydroxide solution
Boron chloride	= Boron trichloride
Boron tribromide	= Boron tribromide
Boron trichloride	= Boron trichloride
Bottled gas	= Liquefied petroleum gas
Box toe gum	= Collodion
BP	= Dibenzoyl peroxide
BPO	= Dibenzoyl peroxide
Brimstone	= Sulfur
Brocide	= Ethylene dichloride
Bromallylene	= Allyl bromide
Bromelite	= Beryllium oxide
Bromex	= Naled
Bromine pentafluoride	= Bromine pentafluoride
Bromine trifluoride	= Bromine trifluoride
Bromine	= Bromine
1-Bromo-2-propanone	= Bromoacetone
Bromo-2-propanone	= Bromoacetone
Bromoacetone	= Bromoacetone
Bromoacetyl bromide	= Bromoacetyl bromide
Bromobenzene	= Bromobenzene
Bromobenzol	= Bromobenzene
1-Bromobutane	= 1-Bromobutane
n-Bromobutane	= 1-Bromobutane
2-Bromobutane	= 2-Bromobutane
Bromoethanoyl bromide	= Bromoacetyl bromide
Bromoform	= Bromoform
Bromofume	= Ethylene dibromide
Bromomethane	= Methyl bromide
Bromomethyl methyl ketone	= Bromoacetone
2-Bromopentane	= 2-Bromopentane
1-Bromopropane	= 1-Bromopropane
3-Bromopropene	= Allyl bromide
3-Bromopropylene	= Allyl bromide
Bromotoluene, alpha	= Benzyl bromide
omega-Bromotoluene	= Benzyl bromide
alpha-Bromotoluene	= Benzyl bromide
(-)Brucine dihydrate	= Brucine
Brucine	= Brucine
BTMAC	= Benzyltrimethylammonium chloride
Bunker C oil	= Oils, fuel: no. 6
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	= Hexachlorobutadiene

SYNONYM	COMPOUND NAMES
Butadiene	= Butadiene
1,3-Butadiene	= Butadiene
Butaldehyde	= n-Butyraldehyde
Butanal	= n-Butyraldehyde
1-Butanamine, n-butyl	= Di-n-butylamine
Butane	= Butane
n-Butane	= Butane
1,4-Butanedicarboxylic acid	= Adipic acid
1,4-Butanediol	= 1,4-Butanediol
Butanediol	= Butylene glycol
Butanenitrile	= Butyronitrile
1-Butanethiol	= n-Butyl mercaptan
Butanic acid	= n-Butyric acid
Butanoic acid, 3-oxo-methyl ester (9ci)	= Methyl acetoacetate
Butanoic acid, butyl ester	= Butyl butyrate
Butanoic acid, methyl ester	= Methyl butyrate
Butanoic acid	= n-Butyric acid
1-Butanol, 3-methoxyacetate	= 3-Methoxybutyl acetate
Butanol	= n-Butyl alcohol
1-Butanol	= n-Butyl alcohol
2-Butanol	= sec-Butyl alcohol
2-Butanone peroxide	= 2-Butanone peroxide
2-Butanone, peroxide	= 2-Butanone peroxide
2-Butanone	= Methyl ethyl ketone
Butanox M50, M105, LPT	= 2-Butanone peroxide
Butanoyl chloride	= Butyryl chloride
3-Buten-2-one	= Methyl vinyl ketone
1-Buten-3-ol, 3-methyl	= Methyl butenol
trans-2-Butenal	= Crotonaldehyde
cis-2-Butene-1, 4-diol	= 1,4-Butenediol
2-Butene-1, 4-diol	= 1,4-Butenediol
1-Butene oxide	= 1,2-Butylene oxide
Butene resins	= Polybutene
1-Butene	= Butylene
trans-Butenedioic acid	= Fumaric acid
cis-Butenedioic acid	= Maleic acid
cis-Butenedioic anhydride	= Maleic anhydride
1,4-Butenediol	= 1,4-Butenediol
1-Butoxy-2,3-epoxypropane	= n-Butyl glycidyl ether
1-Butoxy butane	= Di-n-butyl ether
Butoxydiethylene glycol	= Diethylene glycol monobutyl ether
Butoxydiglycol	= Diethylene glycol monobutyl ether
2-Butoxyethanol acetate	= Ethylene glycol monobutyl ether acetate
2-Butoxyethanol	= Ethylene glycol monobutyl ether
2-(2-Butoxyethoxy) ethanol acetate	= Diethylene glycol monobutyl ether acetate
2-(2-Butoxyethoxy) ethanol	= Diethylene glycol monobutyl ether
2-Butoxyethyl acetate	= Ethylene glycol monobutyl ether acetate
Bis(2-Butoxyethyl) ether	= Diethylene glycol dibutyl ether
Butoxyl	= 3-Methoxybutyl acetate
Butoxypropyl trichlorophenoxyacetate	= 2,4,5-T esters
Butyric acid, 2-hydroxy-4-methylthio-	= 2-Hydroxy-4-(methylthio)-butanoic acid
Butter of antimony	= Antimony trichloride
Butter of arsenic	= Arsenic trichloride

**SYNONYM****COMPOUND NAMES**

Buttercup yellow	= Zinc chromate
Butyl "carbitol" acetate	= Diethylene glycol monobutyl ether acetate
Butyl "carbitol"	= Diethylene glycol monobutyl ether
Butyl "cellosolve" acetate	= Ethylene glycol monobutyl ether acetate
Butyl 2-methacrylate	= n-Butyl methacrylate
Butyl 2-methyl-2-propenoate	= n-Butyl methacrylate
n-Butyl 2-propenoate	= n-Butyl acrylate
Butyl 2,4-dichlorophenoxyacetate	= 2,4-D esters
Butyl 2,4,5- trichlorophenoxyacetate	= 2,4,5-T esters
Butyl a-hydroxypropionate	= Butyl lactate
n-Butyl acetate	= n-Butyl acetate
Butyl acetate	= n-Butyl acetate
sec-Butyl acetate	= sec-Butyl acetate
tert-Butyl acetate	= tert-Butyl acetate
iso-Butyl acrylate	= iso-butyl acrylate
n-Butyl acrylate	= n-Butyl acrylate
Butyl acrylate	= n-Butyl acrylate
Butyl alcohol	= n-Butyl alcohol
n-Butyl alcohol	= n-Butyl alcohol
sec-Butyl alcohol	= sec-Butyl alcohol
tert-Butyl alcohol	= tert-Butyl alcohol
Butyl aldehyde	= n-Butyraldehyde
n-Butyl alpha-methylacrylate	= n-Butyl methacrylate
Butyl benzyl phthalate	= Butyl benzyl phthalate
n-Butyl bromide	= 1-Bromobutane
Butyl bromide	= 1-Bromobutane
sec-Butyl bromide	= 2-Bromobutane
Butyl butanoate	= Butyl butyrate
Butyl butyrate	= Butyl butyrate
Butyl cellosolve	= Ethylene glycol monobutyl ether
n-Butyl chloride	= Butyl chloride
Butyl chloride	= Butyl chloride
n-Butyl chloroformate	= n-Butyl chloroformate
n-Butyl chloroformate	= n-Butyl chloroformate
Butyl diglyme	= Diethylene glycol dibutyl ether
Butyl ethanoate	= n-Butyl acetate
Butyl ether	= Di-n-butyl ether
n-Butyl ether	= Di-n-butyl ether
Butyl ethyl ketone	= Ethyl butyl ketone
n-Butyl formal	= n-Valeraldehyde
n-Butyl formate	= n-Butyl formate
n-Butyl glycidyl ether	= n-Butyl glycidyl ether
tert-Butyl hydroperoxide	= tert-Butyl hydroperoxide
Butyl lactate	= Butyl lactate
n-Butyl mercaptan	= n-Butyl mercaptan
n-Butyl methacrylate	= n-Butyl methacrylate
Butyl methacrylate	= n-Butyl methacrylate
tert-Butyl methyl ether	= Methyl tert-butyl ether
n-Butyl methyl ketone	= Methyl n-butyl ketone
Butyl phthalate	= Dibutyl phthalate
n-Butyl propionate	= n-Butyl propionate
Butyl titanate monomer	= Tetrabutyl titanate
Butyl titanate	= Tetrabutyl titanate

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Butyl toluene	= Butyl toluene
Butyl, decyl, cetyl-eicosyl methacrylate	= Butyl, decyl, cetyl-eicosyl methacrylate
Butyl, decyl, cetyl, eicosyl 2-methyl-2-propenoate	= Butyl, decyl, cetyl-eicosyl methacrylate
Butylacetic acid	= Hexanoic acid
Butylaldehyde	= n-Butyraldehyde
iso-Butylamine	= Isobutylamine
n-Butylamine	= n-Butylamine
Butylamine	= n-Butylamine
Mono-n-Butylamine	= n-Butylamine
sec-Butylamine	= sec-Butylamine
tert-Butylamine	= tert-Butylamine
n-Butylcarbinol	= n-Amyl alcohol
n-Butylcarbonyl chloride	= n-Amyl chloride
2-Butylene dichloride	= Dichlorobutene
1,4-Butylene glycol	= 1,4-Butanediol
Butylene glycol	= Butylene glycol
Butylene hydrate	= sec-Butyl alcohol
Butylene oxide	= 1,2-Butylene oxide
Alpha-Butylene oxide	= 1,2-Butylene oxide
1,2-Butylene oxide	= 1,2-Butylene oxide
Butylene	= Butylene
Butylethylacetaldehyde	= Ethylhexaldehyde
Butylethylacetaldehyde	= Ethylhexaldehyde
Butylethylacetic acid	= 2-Ethylhexanoic acid
Butylethylamine	= N-Ethyl-n-butylamine
p-tert-Butylphenol	= p-tert-butylphenol
p-tert-Butyltoluene	= Butyl toluene
4-tert-Butyltoluene	= Butyl toluene
n-Butyltrichlorosilane	= Butyltrichlorosilane
Butyltrichlorosilane	= Butyltrichlorosilane
2-Butyne-1, 4-diol	= 1,4-Butynediol
1,4-Butynediol	= 1,4-Butynediol
iso-Butyraldehyde	= iso-butyraldehyde
n-Butyraldehyde	= n-Butyraldehyde
Butyraldehyde	= n-Butyraldehyde
Butyric acid nitrile	= Butyronitrile
Butyric acid, butyl ester	= Butyl butyrate
Butyric acid, ethyl ester	= Ethyl butyrate
Butyric acid, methyl ester	= Methyl butyrate
n-Butyric acid	= n-Butyric acid
Butyric acid	= n-Butyric acid
Butyric aldehyde	= n-Butyraldehyde
Butyric ether	= Ethyl butyrate
Butyrol chloride	= Butyryl chloride
Butyronitrile	= Butyronitrile
n-Butyryl chloride	= Butyryl chloride
Butyryl chloride	= Butyryl chloride
C-1297	= Lauric acid
C-8 acid	= Octanoic acid
Cacodylic acid	= Cacodylic acid
Cadmium acetate dihydrate	= Cadmium acetate
Cadmium acetate	= Cadmium acetate
Cadmium bromide tetrahydrate	= Cadmium bromide

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Cadmium bromide	= Cadmium bromide
Cadmium chloride	= Cadmium chloride
Cadmium fluoborate solution	= Cadmium fluoroborate
Cadmium fluoborate	= Cadmium fluoroborate
Cadmium fluoroborate	= Cadmium fluoroborate
Cadmium fume	= Cadmium oxide
Cadmium nitrate tetrahydrate	= Cadmium nitrate
Cadmium nitrate	= Cadmium nitrate
Cadmium oxide	= Cadmium oxide
Cadmium sulfate	= Cadmium sulfate
Cadox HDP	= Cyclohexanone peroxide
Cadox PS	= Di-(p-chlorobenzoyl) peroxide
Cadox TBH	= tert-Butyl hydroperoxide
Cake aluminum	= Aluminum sulfate
Calamine	= Zinc carbonate
Calcium abietate	= Calcium resinate
Calcium abietate	= Calcium resinate
Calcium alkylaromatic sulfonate	= Dodecylbenzenesulfonic acid, calcium salt
Calcium alkylbenzenesulfonate	= Dodecylbenzenesulfonic acid, calcium salt
Calcium arsenate	= Calcium arsenate
Calcium arsenite solid	= Calcium arsenite
Calcium arsenite	= Calcium arsenite
Calcium biphosphate	= Calcium phosphate
Calcium carbide	= Calcium carbide
Calcium chlorate	= Calcium chlorate
Calcium chloride hydrates	= Calcium chloride
Calcium chloride, anhydrous	= Calcium chloride
Calcium chloride	= Calcium chloride
Calcium chromate (vi)	= Calcium chromate
Calcium chromate dihydrate	= Calcium chromate
Calcium chromate	= Calcium chromate
Calcium cyanide	= Calcium cyanide
Calcium dioxide	= Calcium peroxide
Calcium fluoride	= Calcium fluoride
Calcium hydroxide	= Calcium hydroxide
Calcium hypochlorite	= Calcium hypochlorite
Calcium nitrate tetrahydrate	= Calcium nitrate
Calcium nitrate	= Calcium nitrate
Calcium oxide	= Calcium oxide
Calcium peroxide	= Calcium peroxide
Calcium phosphate	= Calcium phosphate
Calcium phosphide	= Calcium phosphide
Calcium pyrophosphate	= Calcium phosphate
Calcium resinate, fused	= Calcium resinate
Calcium resinate	= Calcium resinate
Calcium rosin	= Calcium resinate
Calcium superphosphate	= Calcium phosphate
Calcium	= Calcium
Calochlor	= Mercuric chloride
Calomel	= Mercurous chloride
Camphene	= Camphene
Camphor oil	= Camphor oil

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Cane sugar	= Sucrose
Capraldehyde	= Decaldehyde
n-Capric acid	= Decanoic acid
Capric alcohol	= n-Decyl alcohol
Capric aldehyde	= Decaldehyde
Caprinic acid	= Decanoic acid
Caproaldehyde	= n-Hexaldehyde
n-Caproic acid	= Hexanoic acid
epsilon-Caprolactam	= Caprolactam
Caprolactam	= Caprolactam
Capronaldehyde	= n-Hexaldehyde
Capronic acid	= Hexanoic acid
Capronic aldehyde	= n-Hexaldehyde
n-Caproylaldehyde	= n-Hexaldehyde
Caprylene	= 1-Octene
n-Caprylic acid	= Octanoic acid
Captan	= Captan
Carbamaldehyde	= Formamide
Carbamic acid, ammonium salt	= Ammonium carbamate
Carbamide peroxide	= Urea peroxide
Carbamide	= Urea
Carbaryl	= Carbaryl
Carbide	= Calcium carbide
Carbitol	= Diethylene glycol monoethyl ether
Carbobenzoxy chloride	= Benzyl chloroformate
Carbofuran	= Carbofuran
Carbolic acid	= Carbolic oil (mixture)
Carbolic acid	= Phenol
Carbolic oil (mixture)	= Carbolic oil (mixture)
Carbon bisulfide	= Carbon disulfide
Carbon dioxide	= Carbon dioxide
Carbon disulfide	= Carbon disulfide
Carbon monoxide	= Carbon monoxide
Carbon oxyfluoride	= Carbon oxyfluoride
Carbon tet	= Carbon tetrachloride
Carbon tetrachloride	= Carbon tetrachloride
Carbonic acid gas	= Carbon dioxide
Carbonic acid, diethyl ester	= Diethyl carbonate
Carbonic acid, monoammonium salt	= Ammonium bicarbonate
Carbonic acid, thallium (1+) salt	= Thallium carbonate
Carbonic anhydride	= Carbon dioxide
Carbonic difluoride	= Carbon oxyfluoride
Carbonochloridic acid, butyl ester	= n-Butyl chloroformate
Carbonyl chloride	= Phosgene
Carbonyl diamine peroxide	= Urea peroxide
Carbonyl difluoride	= Carbon oxyfluoride
Carbonyl fluoride	= Carbon oxyfluoride
Carbonyldiamide	= Urea
Carboxylbenzene	= Benzoic acid
Carene	= Carene
3-Carene	= Carene
Carolid AL	= Diphenyl
Carpeting medium	= Asphalt blending stocks: straight run residue



<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Carthamus tinctorius oil	= Oils, edible: safflower
Carwinate 125 M	= Diphenylmethane diisocyanate
Cashew nutshell liquid	= Oil, misc: cashew nut shell
Cashew nutshell oil	= Oil, misc: cashew nut shell
Casoron	= Dichlobenil
Catalyst 9915	= Benzyl dimethylamine
Catechin	= Catechol
Catechol	= Catechol
Caustic arsenic chloride	= Arsenic trichloride
Caustic potash solution	= Caustic potash solution
Caustic potash	= Potassium hydroxide
Caustic soda solution	= Caustic soda solution
Caustic soda	= Sodium hydroxide
Cellosolve acetate	= 2-Ethoxyethyl acetate
Cellosolve acetate	= Ethylene glycol monoethyl ether acetate
Cellosolve	= 2-Ethoxyethanol
Cellosolve	= Ethylene glycol monoethyl ether
Cellulose nitrate solution	= Collodion
Cetyl sodium sulfate	= Hexadecyl sulfate, sodium salt
Cetyltrimethylammonium chloride solution	= Hexadecyltrimethylammonium chloride
CGA24705	= Metolachlor
Chaloxyd MEKP-ha 1, -la 1	= 2-Butanone peroxide
Chamber acid	= Sulfuric acid
Charcoal	= Charcoal
Chem bam	= Nabam
Chile saltpeter	= Sodium nitrate
Chinese red	= Mercuric sulfide
Chinese tannin	= Tannic acid
Chinese tannin	= Tannic acid
Chinoline	= Quinoline
Chloracetic acid	= Chloroacetic acid
Chloracetic acid	= Chloroacetic acid (80% or less)
Chloracetyl chloride	= Chloroacetyl chloride
Chloral	= Trichloroacetaldehyde
Chlorate of potash	= Potassium chlorate
Chlorate of potassium	= Potassium chlorate
Chlorate of soda	= Sodium chlorate
Chlorate of soda	= Sodium chlorate solution
Chlorbenzal	= Benzal chloride
Chlordan	= Chlordane
Chlordane	= Chlordane
Chlordecone	= Kepone
2-Chlorethanol	= Ethylene chlorohydrin
Chlorethylene	= Vinyl chloride
Chlorex	= 2,2-Dichloroethyl ether
Chloride of amyl	= n-Amyl chloride
Chlorinated biphenyl	= Polychlorinated biphenyl
Chlorinated hydrochloric ether	= 1,1-Dichloroethane
Chlorine trifluoride	= Chlorine trifluoride
Chlorine	= Chlorine
2-Chloro-1-ethanal	= Chloroacetaldehyde
2-Chloro-1-hydroxybenzene	= o-Chlorophenol
3-Chloro-1-methylbenzene	= m-Chlorotoluene

SYNONYM	COMPOUND NAMES
2-Chloro-1-methylbenzene	= o-Chlorotoluene
4-Chloro-1-methylbenzene	= p-Chlorotoluene
1-Chloro-1-nitropropane	= 1-Chloro-1-nitropropane
3-Chloro-1, 2-propylene oxide	= Epichlorohydrin
2-Chloro-1, 3-butadiene	= Chloroprene
1-Chloro-1,1,2,2-tetrafluoroethane	= Monochlorotetrafluoroethane
5-Chloro-2-aminotoluene	= 4-Chloro-o-toluidine
4-Chloro-2-methylaniline	= 4-Chloro-o-toluidine
3-Chloro-2-methylpropene	= Methallyl chloride
1-Chloro-2-nitrobenzene	= o-Chloronitrobenzene
1-Chloro-2,3-epoxypropane	= Epichlorohydrin
1-Chloro-3-methylbenzene	= m-Chlorotoluene
2-Chloro-4-ethylamino-6-	= Atrazine
1-Chloro-4-methylbenzene	= p-Chlorotoluene
4-Chloro-o-toluidine	= 4-Chloro-o-toluidine
Chloroacetaldehyde, monomer	= Chloroacetaldehyde
Chloroacetaldehyde	= Chloroacetaldehyde
Chloroacetic acid (80% or less)	= Chloroacetic acid (80% or less)
Chloroacetic acid, ethyl ester	= Ethyl chloroacetate
Chloroacetic acid, methyl ester	= Methyl chloroacetate
Chloroacetic acid	= Chloroacetic acid
Chloroacetophenone	= Chloroacetophenone
omega-Chloroacetophenone	= Chloroacetophenone
alpha-Chloroacetophenone	= Chloroacetophenone
Chloroacetyl chloride	= Chloroacetyl chloride
2-Chloroallyl chloride	= 2,3-Dichloropropene
p-Chloroaniline	= p-chloroaniline
4-Chloroaniline	= p-chloroaniline
Chlorobenzene	= Chlorobenzene
Bis-(p-Chlorobenzoyl) peroxide	= Di-(p-chlorobenzoyl) peroxide
p-Chlorobenzoyl peroxide	= Di-(p-chlorobenzoyl) peroxide
p,p'-Chlorobenzoyl peroxide	= Di-(p-chlorobenzoyl) peroxide
2-Chlorobuta-1, 3-diene	= Chloroprene
2-Chlorobutadiene	= Chloroprene
1-Chlorobutane	= Butyl chloride
4-Chlorobutyronitrile	= 4-Chlorobutyronitrile
Chlorocarbonic acid, methyl ester	= Methyl chloroformate
Chlorocarbonic acid, n-butyl ester	= n-Butyl chloroformate
Chlorodifluoromethane	= Chlorodifluoromethane
Chloroethanal	= Chloroacetaldehyde
Chloroethane	= Ethyl chloride
Chloroethanoic acid	= Chloroacetic acid (80% or less)
2-Chloroethanol	= Ethylene chlorohydrin
2-Chloroethyl alcohol	= Ethylene chlorohydrin
Bis (2-Chloroethyl) ether	= 2,2-Dichloroethyl ether
Chloroform	= Chloroform
Chloroformic acid dimethylamide	= N,N-Dimethylcarbamoyl chloride
Chloroformic acid, benzyl ester	= Benzyl chloroformate
Chloroformic acid, benzyl ester	= Benzyl chloroformate
Chloroformic acid, ethyl ester	= Ethyl chloroformate
Chloroformic acid, methyl ester	= Methyl chloroformate
Chloroformic acid, n-butyl ester	= n-Butyl chloroformate
Chloroformyl chloride	= Phosgene
Chlorohydrins	= Chlorohydrins

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
gamma-Chloroisobutylene	= Methallyl chloride
Bis (2-Chloroisopropyl) ether	= 2,2'-Dichloroisopropyl ether
Chloromethane	= Methyl chloride
Chloromethyl methyl ether	= Chloromethyl methyl ether
Chloromethyl phenyl ketone	= Chloroacetophenone
Chloromethyloxirane	= Epichlorohydrin
o-Chloronitrobenzene	= o-Chloronitrobenzene
o-Chlorophenol	= o-Chlorophenol
4-Chlorophenol	= p-Chlorophenol
p-Chlorophenol	= p-Chlorophenol
1,1-Bis(p-Chlorophenyl)-2,2,2-trichloroethanol	= 4,4'-dichloro-alpha-trichloromethyl benzhydrol
4-Chlorophenylamine	= p-chloroaniline
Chlorophos	= Trichlorfon
Chloropicrin	= Chloropicrin
Chloroprene	= Chloroprene
beta-Chloroprene	= Chloroprene
1-Chloropropane	= n-Propyl chloride
3-Chloropropanoic acid	= 3-Chloropropionic acid
3-Chloropropene	= Allyl chloride
2-Chloropropionic acid	= 2-Chloropropionic acid
alpha-Chloropropionic acid	= 2-Chloropropionic acid
beta-Chloropropionic acid	= 3-Chloropropionic acid
3-Chloropropionic acid	= 3-Chloropropionic acid
gamma-Chloropropylene oxide	= Epichlorohydrin
3-Chloropropylene	= Allyl chloride
Chlorosulfonic acid	= Chlorosulfonic acid
Chlorosulfuric acid	= Chlorosulfonic acid
Chlorotetrafluoroethane	= Monochlorotetrafluoroethane
Chlorothene	= Trichloroethane
omega-Chlorotoluene	= Benzyl chloride
alpha-Chlorotoluene	= Benzyl chloride
3-Chlorotoluene	= m-Chlorotoluene
m-Chlorotoluene	= m-Chlorotoluene
2-Chlorotoluene	= o-Chlorotoluene
o-Chlorotoluene	= o-Chlorotoluene
p-Chlorotoluene	= p-Chlorotoluene
4-Chlorotoluene	= p-Chlorotoluene
Chlorotrifluoroethylene	= Trifluorochloroethylene
Chlorotrifluoromethane	= Monochlorotrifluoromethane
Chlorotrimethylsilane	= Trimethylchlorosilane
1-Chlorpentane	= n-Amyl chloride
Chlorpyrifos	= Dursban
Chlorsulfonic acid	= Chlorosulfonic acid
Chlorthepin	= Endosulfan
Chlorylen	= Trichloroethylene
CHP	= Cumene hydroperoxide
Chromic (III) acetate	= Chromic acetate
Chromic acetate	= Chromic acetate
Chromic acid, dilithium salt	= Lithium chromate
Chromic acid, strontium salt (1:1)	= Strontium chromate
Chromic acid	= Chromic anhydride
Chromic anhydride	= Chromic anhydride
Chromic oxide	= Chromic anhydride

SYNONYM	COMPOUND NAMES
Chromic sulfate	= Chromic sulfate
Chromium (VI) dioxychloride	= Chromyl chloride
Chromium acetate	= Chromic acetate
Chromium chloride	= Chromous chloride
Chromium dichloride	= Chromous chloride
Chromium III sulfate	= Chromic sulfate
Chromium lithium oxide	= Lithium chromate
Chromium oxychloride	= Chromyl chloride
Chromium sulfate	= Chromic sulfate
Chromium triacetate	= Chromic acetate
Chromium trioxide	= Chromic anhydride
Chromous chloride	= Chromous chloride
Chromyl chloride	= Chromyl chloride
Cianurina	= Mercuric cyanide
Citric acid, diammonium salt	= Ammonium citrate, dibasic
Citric acid	= Citric acid
Clorox	= Sodium hypochlorite
Clorox	= Sodium hypochlorite solution
Co-ral	= Coumaphos
Coal tar pitch	= Coal tar pitch
Coalite NTP	= Trixylenyl phosphate
Cobalt (II) bromide	= Cobalt bromide (ous)
Cobalt (II) chloride	= Cobalt chloride
Cobalt (II) fluoride	= Cobalt fluoride
Cobalt acetate tetrahydrate	= Cobalt acetate
Cobalt acetate	= Cobalt acetate
Cobalt amino sulfonate	= Cobalt sulfamate
Cobalt bromide (ous)	= Cobalt bromide (ous)
Cobalt chloride	= Cobalt chloride
Cobalt dibromide	= Cobalt bromide (ous)
Cobalt difluoride	= Cobalt fluoride
Cobalt diformate	= Cobalt formate
Cobalt fluoride	= Cobalt fluoride
Cobalt formate	= Cobalt formate
Cobalt nitrate	= Cobalt nitrate
Cobalt sulfamate	= Cobalt sulfamate
Cobalt sulfate	= Cobalt sulfate
Cobalt(II) acetate	= Cobalt acetate
Cobalt(II) nitrate	= Cobalt nitrate
Cobalt(II) sulfate	= Cobalt sulfate
Cobaltous acetate	= Cobalt acetate
Cobaltous bromide	= Cobalt bromide (ous)
Cobaltous chloride dihydrate	= Cobalt chloride
Cobaltous chloride hexahydrate	= Cobalt chloride
Cobaltous chloride	= Cobalt chloride
Cobaltous formate	= Cobalt formate
Cobaltous nitrate hexahydrate	= Cobalt nitrate
Cobaltous nitrate	= Cobalt nitrate
Cobaltous sulfamate	= Cobalt sulfamate
Cobaltous sulfate heptahydrate	= Cobalt sulfate
Coconut butter	= Oils, edible: coconut
Coconut oil	= Oils, edible: coconut
Cocure 26	= Phenylmercuric acetate
Codal	= Metolachlor

SYNONYM	COMPOUND NAMES
Codoil	= Oils, miscellaneous: resin
Codoil	= Oils, miscellaneous: rosin
Collodion	= Collodion
Cologne spirit	= Ethyl alcohol
Colonial spirit	= Methyl alcohol
Columbian spirit	= Methyl alcohol
Combustion improver C-12	= Methylcyclopentadienylmanganese tricarbonyl
Common verdigris	= Copper subacetate
Compound 1080	= Sodium fluoroacetate
Condensed phosphoric acid	= Polyphosphoric acid
Conoco SA 597	= Dodecylbenzenesulfonic acid
Copper acetate	= Copper acetate
Copper acetoarsenite	= Copper acetoarsenite
Copper ammonium sulfate	= Copper sulfate, ammoniated
Copper arsenite	= Copper arsenite
Copper borofluoride solution	= Copper fluoroborate
Copper bromide (ous)	= Copper bromide (ous)
Copper bromide	= Copper bromide
Copper chloride	= Copper chloride
Copper cyanide (ous)	= Copper cyanide (ous)
Copper fluoroborate	= Copper fluoroborate
Copper formate	= Copper formate
Copper glycinate	= Copper glycinate
Copper iodide	= Copper iodide
Copper lactate	= Copper lactate
Copper monobromide	= Copper bromide (ous)
Copper naphthenate	= Copper naphthenate
Copper nitrate	= Copper nitrate
Copper orthoarsenite	= Copper arsenite
Copper oxalate	= Copper oxalate
Copper subacetate	= Copper subacetate
Copper sulfate pentahydrate	= Copper sulfate
Copper sulfate, ammoniated	= Copper sulfate, ammoniated
Copper sulfate	= Copper sulfate
Copper tartrate	= Copper tartrate
Copper(II) fluoborate solution	= Copper fluoroborate
Copperas	= Ferrous sulfate
Copra oil	= Oils, edible: coconut
Corflex 880	= Diisooctyl phthalate
Corn sugar solution	= Dextrose solution
Corn syrup	= Corn syrup
Corrosive mercury chloride	= Mercuric chloride
Cosan PMA-100	= Phenylmercuric acetate
Cotoran multi	= Metolachlor
Coumaphos	= Coumaphos
Crankcase oil	= Oils, miscellaneous: lubricating
Crankcase oil	= Oils, miscellaneous: motor
Creosote (wood)	= Creosote (wood)
Creosote oil	= Creosote, coal tar
Creosote, coal tar	= Creosote, coal tar
Creosote	= Creosote (wood)
Cresol, epoxypropyl ether	= Cresyl glycidyl ether
m-Cresol	= m-Cresol

SYNONYM	COMPOUND NAMES
3-Cresol	= m-Cresol
o-Cresol	= o-Cresol
2-Cresol	= o-Cresol
p-Cresol	= p-Cresol
Cresols	= Cresols
Cresyl glycidyl ether	= Cresyl glycidyl ether
Cresylate spent caustic solution	= Cresylate spent caustic solution
Cresylate spent caustic	= Cresylate spent caustic solution
m-Cresylic acid	= m-Cresol
Cresylic acid	= Xylenol
Cresylic acids	= Cresols
o-Cresylphosphate	= Tricresyl phosphate (>= 1% ortho isomer)
Croplas EH	= Ethyl hexyl tallate
Crotenaldehyde	= Crotonaldehyde
Croton oil	= Oils, miscellaneous: croton
Croton tiglium oil	= Oils, miscellaneous: croton
Crotonaldehyde	= Crotonaldehyde
Crotonic aldehyde	= Crotonaldehyde
Crotonoel	= Oils, miscellaneous: croton
Crude epichlorohydrin	= Chlorohydrins
Crystallized verdigris	= Copper acetate
CTF	= Chlorine trifluoride
CTFE	= Trifluorochloroethylene
Cucumber dust	= Calcium arsenate
Cumene bottoms	= Diisopropylbenzene (all isomers)
Cumene hydroperoxide	= Cumene hydroperoxide
Cumene	= Cumene
Cumol	= Cumene
Cumyl hydroperoxide	= Cumene hydroperoxide
Cuprammonium sulfate	= Copper sulfate, ammoniated
Cupric acetate monohydrate	= Copper acetate
Cupric acetate, basic	= Copper subacetate
Cupric amino acetate	= Copper glycinate
Cupric ammine sulfate	= Copper sulfate, ammoniated
Cupric arsenite	= Copper arsenite
Cupric bromide, anhydrous	= Copper bromide
Cupric chloride dihydrate	= Copper chloride
Cupric diformate	= Copper formate
Cupric fluoborate solution	= Copper fluoroborate
Cupric green	= Copper arsenite
Cupric nitrate trihydrate	= Copper nitrate
Cupric oxalate hemihydrate	= Copper oxalate
Cupric sulfate	= Copper sulfate
Cupricin	= Copper cyanide (ous)
Cupriethylenediamine hydroxide solution	= Cupriethylenediamine solution
Cupriethylenediamine solution	= Cupriethylenediamine solution
Cuprous cyanide	= Copper cyanide (ous)
Cuprous iodide	= Copper iodide
Curaterr	= Carbofuran
Cyanacetic acid	= Cyanoacetic acid
Cyanide of calcium	= Calcium cyanide
Cyanide of zinc	= Zinc cyanide
Cyanide	= Potassium cyanide

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Cyanoacetic acid	= Cyanoacetic acid
Cyanoacetoneitrile	= Propanedinitrile
Cyanobenzene	= Benzonitrile
Cyanoethane	= Propionitrile
2-Cyanoethanol	= Ethylene cyanohydrin
Cyanoethylene	= Acrylonitrile
Cyanogas A-dust	= Calcium cyanide
Cyanogas G-fumigant	= Calcium cyanide
Cyanogen bromide	= Cyanogen bromide
Cyanogen chloride	= Cyanogen chloride
Cyanogen	= Cyanogen
Cyanomethane	= Acetonitrile
Cyanopropane	= Butyronitrile
2-Cyanopropene-1	= Methacrylonitrile
Cyclodan	= Endosulfan
1,5,9-Cyclododecatriene	= 1,5,9-Cyclododecatriene
Cycloheptane	= Cycloheptane
2,5-Cyclohexadiene-1,4-dione	= p-Benzoquinone
1,4-Cyclohexadienedione	= p-Benzoquinone
Cyclohexane	= Cyclohexane
Cyclohexanol	= Cyclohexanol
Cyclohexanone peroxide	= Cyclohexanone peroxide
Cyclohexanone	= Cyclohexanone
Cyclohexanyl acetate	= Cyclohexyl acetate
Cyclohexenyltrichlorosilane	= Cyclohexenyltrichlorosilane
2-Cyclohexyl-4,6-dinitrophenol	= 4,6-Dinitro-o-cyclohexyl phenol
Cyclohexyl acetate	= Cyclohexyl acetate
Cyclohexyl alcohol	= Cyclohexanol
Cyclohexyl ethane	= Ethyl cyclohexane
Cyclohexyl ketone	= Cyclohexanone
Cyclohexylamine, n-ethyl	= N-Ethylcyclohexylamine
Cyclohexylamine, n,n-dimethyl	= N,N-Dimethylcyclohexylamine
Cyclohexylamine	= Cyclohexylamine
N-Cyclohexylethylamine	= N-Ethylcyclohexylamine
Cyclohexylmethane	= Methylcyclohexane
Cyclopentane, methyl	= Methyl cyclopentane
Cyclopentane	= Cyclopentane
Cyclopentene	= Cyclopentene
Cyclopropane	= Cyclopropane
p-Cymene	= p-Cymene
Cymol	= p-Cymene
Cythion insecticide	= Malathion
D-D soil fumigant	= Dichloropropene, dichloropropane mixture
2,4-D esters	= 2,4-D esters
D.D. turpentine	= Turpentine
2,4-D	= 2,4-Dichlorophenoxyacetic acid
Dalapon	= 2,2-Dichloropropanoic acid
Dalmation-insect powder	= Pyrethrins
2,6-DBN	= Dichlobenil
DBP	= Dibutyl phthalate
DCEE	= 2,2-Dichloroethyl ether
DCP	= Calcium phosphate
DDD	= DDD

SYNONYM	COMPOUND NAMES
p,p'-DDT	= DDT
DDT	= DDT
DDVP	= Dichlorvos
DE Kalin	= Decahydronaphthalene
DEA	= Diethanolamine
Dead oil	= Creosote, coal tar
DEAE	= N,N-Diethylethanolamine
Deanol	= Dimethylethanolamine
DEC	= Decahydronaphthalene
Decaborane	= Decaborane
Decachloroketone	= Kepone
Decahydronaphthalene	= Decahydronaphthalene
Decaldehyde	= Decaldehyde
Decalin	= Decahydronaphthalene
Decanal	= Decaldehyde
Bicyclo[4.4.0]Decane	= Decahydronaphthalene
n-Decane	= Decane
Decane	= Decane
1-Decanecarboxylic acid	= Undecanoic acid
n-Decanoic acid	= Decanoic acid
Decanoic acid	= Decanoic acid
1-Decanol	= n-Decyl alcohol
alpha-Decene	= 1-Decene
1-Decene	= 1-Decene
Dechlorane	= Mirex
Decyl acrylate, inhibited	= n-Decyl acrylate
Decyl acrylate	= n-Decyl acrylate
n-Decyl acrylate	= n-Decyl acrylate
n-Decyl alcohol	= n-Decyl alcohol
n-Decyl aldehyde	= Decaldehyde
n-Decylbenzene	= n-Decylbenzene
Decylbenzene	= n-Decylbenzene
Decylbenzenesulfonic acid	= Alkyl(C <sub>11</sub> - C <sub>17</sub> )benzenesulfonic acid
n-Decylic acid	= Decanoic acid
Deep lemon yellow	= Strontium chromate
DEG	= Diethylene glycol
DEHP	= Di-(2-ethylhexyl)phthalate
DEHPA	= Di-(2-ethylhexyl)phosphoric acid
Dehydrite	= Magnesium perchlorate
DEK	= Diethyl ketone
Demeton	= Demeton
DEN	= Diethylamine
Denatured alcohol	= Ethyl alcohol
Detergent alkylate #	= Dodecylbenzene
Detergent HD-90	= Dodecyl benzene sulfonic acid, sodium salt
Dexol stump remover	= Potassium nitrate
Dextrone	= Diquat
Dextrose solution	= Dextrose solution
Di-(2-chloroethyl) ether	= 2,2-Dichloroethyl ether
Di-(2-ethylhexyl) adipate	= Di-(2-ethylhexyl) adipate
Di-(2-ethylhexyl) phosphate	= Di-(2-ethylhexyl)phosphoric acid
Di-(2-ethylhexyl) sulfosuccinate, sodium salt	= Dioctyl sodium sulfosuccinate



SYNONYM	COMPOUND NAMES
Di-(2-ethylhexyl)phosphoric acid	= Di-(2-ethylhexyl)phosphoric acid
Di-(2-ethylhexyl)phthalate	= Di-(2-ethylhexyl)phthalate
Di-(4-chlorobenzoyl) peroxide	= Di-(p-chlorobenzoyl) peroxide
Di-(6-methylheptyl) phthalate	= Diisooctyl phthalate
Di-(p-chlorobenzoyl) peroxide	= Di-(p-chlorobenzoyl) peroxide
Di-(p-chlorophenyl) trichloromethylcarbinol	= 4,4'-dichloro-alpha-trichloromethyl benzhydrol
Di-beta-hydroxyethoxyethane	= Triethylene glycol
Di-n-amyl phthalate	= Di-n-amyl phthalate
Di-n-butyl ether	= Di-n-butyl ether
Di-n-butyl ketone	= Di-n-butyl ketone
Di-n-butylamine	= Di-n-butylamine
Di-n-hexyl adipate	= Di-n-hexyl adipate
Di-n-nonyl phthalate	= Dinonyl phthalate
Di-n-propyl ether	= n-Propyl ether
Di-n-propylamine	= Di-n-propylamine
Di-on	= Diuron
Di-sec-octyl phthalate	= Di-(2-ethylhexyl)phthalate
Di-syston	= Disulfoton
2,6-Di-tert-butylphenol	= Dibutylphenol
Di (2-ethylhexyl) adipate	= Dioctyl adipate
Di (2-ethylhexyl) phthalate	= Dioctyl phthalate
Di(2-hydroxyethyl) amine	= Diethanolamine
Di(7-methyloctyl) phthalate	= Diisononyl phthalate
Di(ethylene oxide)	= 1,4-Dioxane
Diacetic ether	= Ethyl acetoacetate
Diacetone alcohol	= Diacetone alcohol
Diacetone	= Diacetone alcohol
Diacetyl peroxide solution	= Acetyl peroxide solution
Diacetylmethane	= Acetylacetone
1,6-Diamino-2,2,4(or2,4,4)- trimethylhexane	= Trimethyl hexamethylene diamine
1,11-Diamino-3,6,9-triazaundecane	= Tetraethylenepentamine
p,p'-Diaminobiphenyl	= Benzidine
2,2'-Diaminodiethylamine	= Diethylenetriamine
p-Diaminodiphenyl	= Benzidine
1,2-Diaminoethane	= Ethylenediamine
1,2-Diaminoethane	= Ethylenediamine
1,6-Diaminohexane	= Hexamethylenediamine
2,4-Diaminotoluene	= Toluenediamine
Diammonium chromate	= Ammonium chromate
Diammonium citrate	= Ammonium citrate, dibasic
Diammonium hydrogen phosphate	= Ammonium phosphate
Diammonium orthophosphate	= Ammonium phosphate
Diammonium oxalate	= Ammonium oxalate
Diammonium salt of zinc EDTA	= Diammonium salt of zinc EDTA
Diamyl phthalate	= Amyl phthalate
Diamyl phthalate	= Di-n-amyl phthalate
Diantimony trioxide	= Antimony trioxide
Diazinon	= Diazinon
Dibenzo [b,e] pyridine	= Acridine
Dibenzol dipropylene glycol ester	= Dipropylene glycol dibenzoate
Dibenzoyl peroxide	= Dibenzoyl peroxide
Dibenzyl ether	= Dibenzyl ether

SYNONYM	COMPOUND NAMES
DIBK	= Diisobutyl ketone
Dibrom	= Naled
1,2-Dibromo-2,2-dichloroethyl dimethyl phosphate	= Naled
1,2-Dibromoethane	= Ethylene dibromide
sym-Dibromoethane	= Ethylene dibromide
Dibromomethane	= Dibromomethane
1,2-Dibutoxyethane	= Ethylene glycol dibutyl ether
2,2'-Dibutoxyethyl ether	= Diethylene glycol dibutyl ether
Dibutyl carbitol	= Diethylene glycol dibutyl ether
Dibutyl cellosolve	= Ethylene glycol dibutyl ether
n-Dibutyl ether	= Di-n-butyl ether
Dibutyl ether	= Di-n-butyl ether
Dibutyl oxide	= Di-n-butyl ether
Dibutyl phthalate	= Dibutyl phthalate
Dibutylamine	= Di-n-butylamine
Dibutylphenol	= Dibutylphenol
Dicalcium phosphate	= Calcium phosphate
Dicamba	= Dicamba
Dicarbomethoxyzinc	= Zinc acetate
Dichlobenil	= Dichlobenil
Dichlone	= Dichlone
Dichlorfendism	= Diuron
Dichloricide	= p-Dichlorobenzene
1,1-Dichloro-1-nitroethane	= 1,1-Dichloro-1-nitroethane
2,3-Dichloro-1-propane	= 2,3-Dichloropropene
2,3-Dichloro-1,4-naphthoquinone	= Dichlone
cis-1,4-Dichloro-2-butene	= Dichlorobutene
trans-1,4-Dichloro-2-butene	= Dichlorobutene
1,4-Dichloro-2-butene	= Dichlorobutene
1,4-Dichloro-2-butylene	= Dichlorobutene
1,1-Dichloro-2,2-bis(p-chlorophenyl) ethane	= DDD
4,4'-Dichloro-alpha-trichloromethyl benzhydrol	= 4,4'-Dichloro-alpha-trichloromethyl benzhydrol
3,6-Dichloro-o-anisic acid	= Dicamba
Dichloroacetic acid, methyl ester	= Methyl dichloroacetate
meta-Dichlorobenzene	= m-Dichlorobenzene
m-Dichlorobenzene	= m-Dichlorobenzene
1,3-Dichlorobenzene	= m-Dichlorobenzene
o-Dichlorobenzene	= o-Dichlorobenzene
ortho-Dichlorobenzene	= o-Dichlorobenzene
1,2-Dichlorobenzene	= o-Dichlorobenzene
p-Dichlorobenzene	= p-Dichlorobenzene
2,6-Dichlorobenzonitrile	= Dichlobenil
p,p'-Dichlorobenzoyl peroxide	= Di-(p-chlorobenzoyl) peroxide
Dichlorobutene	= Dichlorobutene
Dichlorodiethyl ether	= 2,2-Dichloroethyl ether
Dichlorodifluoromethane	= Dichlorodifluoromethane
Dichlorodiphenyldichloroethane	= DDD
Dichlorodiphenylsilane	= Diphenyldichlorosilane
Dichlorodiphenylsilicane	= Diphenyldichlorosilane
Dichlorodiphenyltrichloroethane	= DDT
1,1-Dichloroethane	= 1,1-Dichloroethane

SYNONYM	COMPOUND NAMES
1,2-Dichloroethane	= Ethylene dichloride
Dichloroether	= 2,2-Dichloroethyl ether
2,2-Dichloroethyl ether	= 2,2-Dichloroethyl ether
trans-1,2-Dichloroethylene	= 1,2-Dichloroethylene
sym-Dichloroethylene	= 1,2-Dichloroethylene
cis-1,2-Dichloroethylene	= 1,2-Dichloroethylene
1,2-Dichloroethylene	= 1,2-Dichloroethylene
1,1-Dichloroethylene	= Vinylidene chloride
unsym-Dichloroethylene	= Vinylidene chloride
Dichlorofluoromethane	= Dichloromonofluoromethane
1,6-Dichlorohexane	= 1,6-Dichlorohexane
2,2'-Dichloroisopropyl ether	= 2,2'-Dichloroisopropyl ether
2,2'-Dichloroisopropyl ether	= 2,2'-Dichloroisopropyl ether
Dichloromethane	= Dichloromethane
Dichloromonofluoromethane	= Dichloromonofluoromethane
2,4-Dichlorophenol	= 2,4-Dichlorophenol
2,4-Dichlorophenoxyacetic acid, butoxyethyl ester	= 2,4-D esters
2,4-Dichlorophenoxyacetic acid	= 2,4-Dichlorophenoxyacetic acid
Dichlorophenylphosphine	= Benzene phosphorus dichloride
Dichlorophos	= Dichlorvos
1,1-Dichloropropane	= 1,1-Dichloropropane
1,2-Dichloropropane	= 1,2-Dichloropropane
Dichloropropane	= 1,2-Dichloropropane
1,3-Dichloropropane	= 1,3-Dichloropropane
2,2-Dichloropropanoic acid	= 2,2-Dichloropropanoic acid
1,3-Dichloropropene and 1,2- Dichloropropane	= Dichloropropene, dichloropropane mixture
Dichloropropene, dichloropropane mixture	= Dichloropropene, dichloropropane mixture
1,3-Dichloropropene	= 1,3-Dichloropropene
Dichloropropene	= 1,3-Dichloropropene
2,3-Dichloropropene	= 2,3-Dichloropropene
2,2-Dichloropropionic acid	= 2,2-Dichloropropanoic acid
2,3-Dichloropropylene	= 2,3-Dichloropropene
Dichlorotetrafluoroethane	= Dichlorotetrafluoroethane
1,2-Dichlorotetrafluoroethane	= Dichlorotetrafluoroethane
2,2-Dichlorovinyl O,O-dimethyl phosphate	= Dichlorvos
Dichlorvos	= Dichlorvos
Dichromium sulfate	= Chromic sulfate
Dichromium trisulfate	= Chromic sulfate
Dicofol	= 4,4'-Dichloro-alpha-trichloromethyl benzhydrol
Dicy	= Dicyclopentadiene
Dicyan	= Cyanogen
1,4-Dicyanobutane	= Adiponitrile
Dicyanogen	= Cyanogen
Dicyclohexanone diperoxide	= Cyclohexanone peroxide
Dicyclopentadiene	= Dicyclopentadiene
Dieldrin	= Dieldrin
Diesel ignition improver	= n-Amyl nitrate
Diesel oil (light)	= Oils, fuel: 1-D
Diesel oil, medium	= Oils, fuel: 2-D

SYNONYM	COMPOUND NAMES
Diethanolamine lauryl sulfate solution	= Dodecyl sulfate, diethanolamine salt
Diethanolamine	= Diethanolamine
Diethion	= Ethion
1,1-Diethoxyethane	= Acetal
1,2-Diethoxyethane	= Ethylene glycol diethyl ether
O,O-Diethyl-5-2-(ethylthio)ethyl phosphodithioate	= Disulfoton
O,O-Diethyl-O-(3-chloro-4-methyl-2-oxo-(2h)-1-benzopyran-7-yl) phosphorothioate	= Coumaphos
Diethyl "cellosolve"	= Ethylene glycol diethyl ether
Diethyl acetal	= Acetal
Diethyl carbonate	= Diethyl carbonate
Diethyl ether	= Ethyl ether
Diethyl ketone	= Diethyl ketone
O,O-Diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl)phosphorothioate	= Diazinon
Diethyl oxide	= Ethyl ether
Diethyl phthalate	= Diethyl phthalate
Diethyl sulfate	= Diethyl sulfate
Diethyl sulphate	= Diethyl sulfate
Diethylamine	= Diethylamine
2-N-Diethylaminoethanol	= N,N-Diethylethanolamine
Diethylaminoethanol	= N,N-Diethylethanolamine
2,6-Diethylaniline	= 2,6-Diethylaniline
Diethylbenzene	= Diethylbenzene
Diethylene glycol di-n-butyl ether	= Diethylene glycol dibutyl ether
Diethylene glycol dibutyl ether	= Diethylene glycol dibutyl ether
Diethylene glycol dimethyl ether	= Diethylene glycol dimethyl ether
Diethylene glycol ethyl ether acetate	= Diethylene glycol ethyl ether acetate
Diethylene glycol ethyl ether	= Diethylene glycol monoethyl ether
Diethylene glycol methyl ether acetate	= Diethylene glycol methyl ether acetate
Diethylene glycol methyl ether	= Diethylene glycol monomethyl ether
Diethylene glycol monobutyl ether acetate	= Diethylene glycol monobutyl ether acetate
Diethylene glycol monobutyl ether	= Diethylene glycol monobutyl ether
Diethylene glycol monoethyl ether	= Diethylene glycol monoethyl ether
Diethylene glycol monomethyl ether	= Diethylene glycol monomethyl ether
Diethylene glycol n-hexyl ether	= Diethylene glycol n-hexyl ether
Diethylene glycol phthalate	= Diethylene glycol phthalate
Diethylene glycol	= Diethylene glycol
Diethylene imidoxide	= Morpholine
Diethylene oxide	= Tetrahydrofuran
Diethylene oximide	= Morpholine
Diethylenediamine	= Piperazine
Diethyleneimide oxide	= Morpholine
Diethylenetriamine	= Diethylenetriamine
N,N-Diethylethanolamine	= N,N-Diethylethanolamine
Diethylzinc	= Diethylzinc
Dieyanomethane	= Propanedinitrile
1,1-Difluoroethane	= 1,1-Difluoroethane
Difluorophosphoric acid	= Difluorophosphoric acid
Difluorophosphorus acid	= Difluorophosphoric acid
Diformyl	= Glyoxal

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Diglycidyl ether of Bisphenol A	= Bisphenol A diglycidyl ether
Diglycol monobutyl ether acetate	= Diethylene glycol monobutyl ether acetate
Diglycol monobutyl ether	= Diethylene glycol monobutyl ether
Diglycol	= Diethylene glycol
Diglyme	= Diethylene glycol dimethyl ether
Diheptyl phthalate	= Diheptyl phthalate
1,2-Dihydro-3,6-pyridazinedione	= Maleic hydrazide
2,5-Dihydroperoxy-2,5-dimethylhexane	= Dimethylhexane dihydroperoxide
1,4-Dihydroxy-2-butene	= 1,4-Butenediol
1,4-Dihydroxy-2-butyne	= 1,4-Butynediol
2,2-Dihydroxy-3,3,5,5,6,6-hexachlorodiphenylmethane	= Hexachlorophene
1,2-Dihydroxybenzene	= Catechol
p-Dihydroxybenzene	= Hydroquinone
1,3-Dihydroxybenzene	= Resorcinol
m-Dihydroxybenzene	= Resorcinol
Dihydroxybenzol	= Resorcinol
1,4-Dihydroxybutane	= 1,4-Butanediol
Dihydroxybutane	= Butylene glycol
2,2'-Dihydroxydiethyl amine	= Diethanolamine
p,p'-Dihydroxydiphenyldimethylmethane	= Bisphenol A
2,2'-Dihydroxydipropylamine	= Diisopropanolamine
1,2-Dihydroxyethane	= Ethylene glycol
1,2-Dihydroxypropane	= Propylene glycol
Diisobutyl ketone	= Diisobutyl ketone
Diisobutyl phthalate	= Diisobutyl phthalate
Diisobutylamine	= Diisobutylamine
Diisobutylcarbinol	= Diisobutylcarbinol
Diisobutylene	= Diisobutylene
Diisodecyl phthalate	= Diisodecyl phthalate
Diisononyl adipate	= Diisononyl adipate
Diisononyl phthalate	= Diisononyl phthalate
Diisooctyl phthalate	= Diisooctyl phthalate
Diisopropanolamine	= Diisopropanolamine
Diisopropyl ether	= Isopropyl ether
Diisopropyl naphthalene	= Diisopropyl naphthalene
2,6-Diisopropyl naphthalene	= Diisopropyl naphthalene
Diisopropyl oxide	= Isopropyl ether
Diisopropyl percarbonate	= Isopropyl percarbonate
Diisopropyl peroxydicarbonate	= Isopropyl percarbonate
5-Diisopropylacetone	= Diisobutyl ketone
Diisopropylamine	= Diisopropylamine
Diisopropylbenzene (all isomers)	= Diisopropylbenzene (all isomers)
Diisopropylbenzene hydroperoxide	= Diisopropylbenzene hydroperoxide
Dilauroyl peroxide	= Lauroyl peroxide
Dilithium chromate	= Lithium chromate
Dilute sulfuric acid	= Sulfuric acid, spent
Dimazine	= 1,1-Dimethylhydrazine
1,2-Dimethoxyethane	= Ethylene glycol dimethyl ether
Dimethoxymethane	= Methyl formal
10,11-Dimethoxystrychnine	= Brucine
Dimethyl-1-hexanols	= Isooctyl alcohol
3,3-Dimethyl-2-methylene norcamphane	= Camphene

SYNONYM	COMPOUND NAMES
2,2-Dimethyl-3-methylene norborane	= Camphene
2,6-Dimethyl-4-heptane	= Diisobutyl ketone
2,6-Dimethyl-4-heptanol	= Diisobutylcarbinol
N,N-Dimethyl-n-(2-hydroxyethyl) amine	= Dimethylethanolamine
alpha, alpha-Dimethyl-propionic acid	= Trimethylacetic acid
N,N-Dimethyl acetamide solution (40% or less)	= N,N-Dimethyl acetamide solution (40% or less)
Dimethyl acetone	= Diethyl ketone
Dimethyl adipate	= Dimethyl adipate
N,N-Dimethyl benzene methanamine	= Benzyl dimethylamine
N,N-Dimethyl benzylamine	= Benzyl dimethylamine
Dimethyl carbamic chloride	= N,N-Dimethylcarbamoil chloride
Dimethyl cellosolve	= Ethylene glycol dimethyl ether
Dimethyl ether	= Dimethyl ether
Dimethyl formal	= Methyl formal
Dimethyl glutarate	= Dimethyl glutarate
Dimethyl hexanedioate	= Dimethyl adipate
Dimethyl hydrogen phosphite	= Dimethyl hydrogen phosphite
Dimethyl ketone	= Acetone
O,O-Dimethyl o-p-nitrophenyl thiophosphate	= Methyl parathion
2,2-Dimethyl octanoic acid	= Neodecanoic acid
Dimethyl phosphite	= Dimethyl hydrogen phosphite
Dimethyl phthalate	= Dimethyl phthalate
O,O-Dimethyl s-[(4-oxo-1,2,3-benzotriazine-3-(4h)-yl)methyl]phosphorodithioate	= Azinphos methyl
Dimethyl silicone fluids	= Dimethylpolysiloxane
Dimethyl silicone oil	= Dimethylpolysiloxane
Dimethyl succinate	= Dimethyl succinate
Dimethyl sulfate	= Dimethyl sulfate
Dimethyl sulfide	= Dimethyl sulfide
Dimethyl sulfoxide	= Dimethyl sulfoxide
Dimethyl terephthalate	= Dimethyl terephthalate
N,N-(Dimethyl) a-tolueneamine	= Benzyl dimethylamine
N-N-Dimethylacetamide	= Dimethylacetamide
Dimethylacetamide	= Dimethylacetamide
Dimethylacetamide	= N,N-Dimethyl acetamide solution (40% or less)
Dimethylacetic acid	= Isobutyric acid
Dimethylacetylenecarbinol	= 2-Methyl-2-hydroxy-3-butyne
Dimethylamine	= Dimethylamine
2-(Dimethylamino)ethanol	= Dimethylethanolamine
a-(Dimethylamino)toluene	= Benzyl dimethylamine
B-Dimethylaminoethyl alcohol	= Dimethylethanolamine
2,6-Dimethylaniline	= 2,6-Dimethylaniline
Dimethylarsinic acid	= Cacodylic acid
alpha,alpha-Dimethylbenzene hydroperoxide	= Cumene hydroperoxide
1,3-Dimethylbenzene	= m-Xylene
1,2-Dimethylbenzene	= o-Xylene
1,4-Dimethylbenzene	= p-Xylene
Dimethylbenzyl hydroperoxide	= Cumene hydroperoxide
2,2-Dimethylbutane	= Neohexane

SYNONYM	COMPOUND NAMES
2,2-Dimethylcaprylic acid	= 2,2-Dimethyloctanoic acid
N,N-Dimethylcarbamoyl chloride	= N,N-Dimethylcarbamoyl chloride
Dimethylcarbamylochloride	= N,N-Dimethylcarbamoyl chloride
Dimethylcarbinol	= Isopropyl alcohol
N,N-Dimethylchloroformamide	= N,N-Dimethylcarbamoyl chloride
n-Dimethylcyclohexanamine	= N,N-Dimethylcyclohexylamine
N,N-Dimethylcyclohexylamine	= N,N-Dimethylcyclohexylamine
Dimethyldichlorosilane	= Dimethyldichlorosilane
Dimethylethanolamine	= Dimethylethanolamine
1,1-Dimethylethylamine	= tert-Butylamine
Dimethylethynylcarbinol	= 2-Methyl-2-hydroxy-3-butyne
N,N-Dimethylformamide	= Dimethylformamide
Dimethylformamide	= Dimethylformamide
Dimethylhexanals	= Isooctaldehyde
2,5-Dimethylhexane-2,5-dihydroperoxide	= Dimethylhexane dihydroperoxide
Dimethylhexane dihydroperoxide	= Dimethylhexane dihydroperoxide
1,1-Dimethylhydrazine	= 1,1-Dimethylhydrazine
unsym-Dimethylhydrazine	= 1,1-Dimethylhydrazine
sym-Dimethylhydrazine	= 1,2-Dimethylhydrazine
1,2-Dimethylhydrazine	= 1,2-Dimethylhydrazine
Dimethylmethane	= Propane
2,2-Dimethyloctanoic acid	= 2,2-Dimethyloctanoic acid
Dimethylol propane	= 2,2-Dimethylpropane-1,3-diol
Dimethylphenol phosphate (3:1)	= Trixylenyl phosphate
Dimethylphenol	= Xylenol
Dimethylphosphonate	= Dimethyl hydrogen phosphite
Dimethylpolysiloxane	= Dimethylpolysiloxane
2,2-Dimethylpropane-1,3-diol	= 2,2-Dimethylpropane-1,3-diol
1,1-Dimethylpropargyl alcohol	= 2-Methyl-2-hydroxy-3-butyne
Bis(Dimethylthiocarbamyl)disulfide	= Thiram
Dimethyltrimethylene glycol	= 2,2-Dimethylpropane-1,3-diol
Dimethylzinc	= Dimethylzinc
2,4-Dinitraniline	= 2,4-Dinitroaniline
2,4-Dinitro-6-cyclohexylphenol	= 4,6-Dinitro-o-cyclohexyl phenol
2,6-Dinitro-n,n-dipropyl-4-trifluoromethylaniline	= Trifluralin
3,5-Dinitro-o-cresol	= Dinitrocresol
2,6-Dinitro-o-cresol	= Dinitrocresol
4,6-Dinitro-o-cresol	= Dinitrocresol
4,6-Dinitro-o-cyclohexyl phenol	= 4,6-Dinitro-o-cyclohexyl phenol
Dinitro-o-cyclohexylphenol	= 4,6-Dinitro-o-cyclohexyl phenol
2,4-Dinitroaniline	= 2,4-Dinitroaniline
m-Dinitrobenzene	= m-Dinitrobenzene
1,3-Dinitrobenzene	= m-Dinitrobenzene
meta-Dinitrobenzene	= m-Dinitrobenzene
o-Dinitrobenzene	= o-Dinitrobenzene
1,2-Dinitrobenzene	= o-Dinitrobenzene
1,4-Dinitrobenzene	= p-Dinitrobenzene
p-Dinitrobenzene	= p-Dinitrobenzene
1,3-Dinitrobenzol	= m-Dinitrobenzene
Dinitrobenzol	= m-Dinitrobenzene
o-Dinitrobenzol	= o-Dinitrobenzene
Dinitrocresol	= Dinitrocresol
Dinitrogen monoxide	= Nitrous oxide

SYNONYM	COMPOUND NAMES
Dinitrogen tetroxide	= Nitrogen tetroxide
2,4-Dinitrophenol	= 2,4-Dinitrophenol
alpha-Dinitrophenol	= 2,4-Dinitrophenol
2,5-Dinitrophenol	= 2,5-Dinitrophenol
gamma-Dinitrophenol	= 2,5-Dinitrophenol
beta-Dinitrophenol	= 2,6-Dinitrophenol
2,6-Dinitrophenol	= 2,6-Dinitrophenol
o-o-Dinitrophenol	= 2,6-Dinitrophenol
2,4-Dinitrotoluene	= 2,4-Dinitrotoluene
2,6-Dinitrotoluene	= 2,6-Dinitrotoluene
3,4-Dinitrotoluene	= 3,4-Dinitrotoluene
2,4-Dinitrotoluol	= 2,4-Dinitrotoluene
Dinonyl 1,2-benzenedicarboxylate	= Dinonyl phthalate
Dinonyl phthalate	= Dinonyl phthalate
Diocetyl adipate	= Diocetyl adipate
Diocetyl phthalate	= Diocetyl phthalate
Diocetyl sodium sulfosuccinate	= Diocetyl sodium sulfosuccinate
Dioform	= 1,2-Dichloroethylene
Dioxane	= 1,4-Dioxane
p-Dioxane	= 1,4-Dioxane
1,4-Dioxane	= 1,4-Dioxane
Dioxonium perchlorate solution	= Perchloric acid
1,3-Dioxophthalan	= Phthalic anhydride
DIPB	= Diisopropylbenzene (all isomers)
Dipentene	= Dipentene
Dipentyl phthalate	= Amyl phthalate
Dipentyl phthalate	= Di-n-amyl phthalate
Diphenyl-diphenyl ether mixture	= Dowtherm
Diphenyl ether	= Diphenyl ether
Diphenyl ketone	= Benzophenone
Diphenyl methanone	= Benzophenone
Diphenyl oxide	= Diphenyl ether
Diphenyl	= Diphenyl
Diphenylamine	= Diphenylamine
Diphenyldichlorosilane	= Diphenyldichlorosilane
Diphenylmethane-4,4'-diisocyanate	= Diphenylmethane diisocyanate
Diphenylmethane diisocyanate	= Diphenylmethane diisocyanate
Diphenylsilicon dichloride	= Diphenyldichlorosilane
Dipropanediol dibenzoate	= Dipropylene glycol dibenzoate
Dipropyl ether	= n-Propyl ether
N,N-Dipropylaniline	= Nitralin
Dipropylene glycol dibenzoate	= Dipropylene glycol dibenzoate
Dipropylene glycol methyl ether	= Dipropylene glycol methyl ether
Dipropylene glycol monomethyl ether	= Dipropylene glycol methyl ether
Dipropylene glycol	= Dipropylene glycol
Dipterex	= Trichlorfon
Diquat dibromide	= Diquat
Diquat	= Diquat
Disodium arsenate heptahydrate	= Sodium arsenate
Disodium dihydrogen pyrophosphate	= Sodium phosphate
Disodium ethylenebis[dithiocarbamate]	= Nabam
Disodium methane arsonate	= Methanearsonic acid, sodium salt
Disodium methyl arsonate	= Methanearsonic acid, sodium salt
Disodium nitrilotriacetate	= Nitrilotriacetic acid and salts



<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Disodium selenite	= Sodium selenite
Distillates: flashed feed stocks	= Distillates: flashed feed stocks
Distillates: straight run	= Distillates: straight run
Distokal	= Hexachloroethane
Distopan	= Hexachloroethane
Disulfatozirconic acid	= Zirconium sulfate
Disulfoton	= Disulfoton
Dithallium carbonate	= Thallium carbonate
Dithane	= Nabam
Dithiopyrophosphoric acid, O,O,O,O-tetraethyl ester	= Tetraethyl dithiopyrophosphate
Dithiosystox	= Disulfoton
Ditridecyl phthalate	= Ditridecyl phthalate
Diundecyl phthalate	= Diundecyl phthalate
Diurex	= Diuron
Diuron	= Diuron
Divinyl	= Butadiene
Divinylene oxide	= Furan
divinylmethane	= 1,4-Pentadiene
DMCC	= N,N-Dimethylcarbamoil chloride
DMDT	= Methoxychlor
DMF	= Dimethylformamide
DMP	= Dimethyl phthalate
DMS	= Dimethyl sulfide
DMSO	= Dimethyl sulfoxide
m-DNB	= m-Dinitrobenzene
2,5-DNP	= 2,5-Dinitrophenol
DNP	= 2,6-Dinitrophenol
DNT	= 2,4-Dinitrotoluene
2,6-DNT	= 2,6-Dinitrotoluene
3,4-DNT	= 3,4-Dinitrotoluene
DO 14	= Propargite
DOA	= Dioctyl adipate
1-Dodecanethiol	= Lauryl mercaptan
n-Dodecanoic acid	= Lauric acid
Dodecanol	= Dodecanol
Dodecanol	= Linear alcohols
Dodecanoyl peroxide	= Lauroyl peroxide
Dodecene (non-linear)	= Dodecene
Dodecene (non-linear)	= Propylene tetramer
1-Dodecene	= 1-Dodecene
Dodecene	= Dodecene
Dodecyl-2-methyl-2-propenoate	= Dodecylmethacrylate
Dodecyl alcohol	= Dodecanol
Dodecyl benzene sulfonic acid, sodium salt	= Dodecyl benzene sulfonic acid, sodium salt
Dodecyl diphenyl ether disulfonate solution	= Dodecyl diphenyl ether disulfonate solution
Dodecyl diphenyl ether sulfonate, disodium salt, aqueous solution	= Dodecyl diphenyl ether disulfonate solution
Dodecyl mercaptan	= Lauryl mercaptan
Dodecyl phenol	= Dodecyl phenol
Dodecyl sulfate, ammonium salt	= Ammonium lauryl sulfate
Dodecyl sulfate, diethanolamine salt	= Dodecyl sulfate, diethanolamine salt

**SYNONYM****COMPOUND NAMES**

Dodecyl sulfate, magnesium salt	= Dodecyl sulfate, magnesium salt
Dodecyl sulfate, sodium salt	= Dodecyl sulfate, sodium salt
Dodecyl sulfate, triethanolamine salt	= Dodecyl sulfate, triethanolamine salt
Dodecyl/pentadecyl methacrylate	= Dodecyl/pentadecyl methacrylate
Dodecylbenzene	= Dodecylbenzene
n-Dodecylbenzene	= Dodecylbenzene
n-Dodecylbenzene	= Dodecylbenzene
Dodecylbenzenesulfonate sodium salt	= Dodecyl benzene sulfonic acid, sodium salt
Dodecylbenzenesulfonic acid, calcium salt	= Dodecylbenzenesulfonic acid, calcium salt
Dodecylbenzenesulfonic acid, isopropylamine salt	= Dodecylbenzenesulfonic acid, isopropylamine salt
Dodecylbenzenesulfonic acid, triethanolamine salt	= Dodecylbenzenesulfonic acid, triethanolamine salt
Dodecylbenzenesulfonic acid	= Dodecylbenzenesulfonic acid
alpha-Dodecylene	= 1-Dodecene
Dodecylethylene	= 1-Tetradecene
Dodecylmethacrylate	= Dodecylmethacrylate
Dodecyltrichlorosilane	= Dodecyltrichlorosilane
DOP	= Dioctyl phthalate
Dormant oil	= Oils, miscellaneous: spray
Dow-fume 40	= Ethylene dibromide
Dowanol-50B	= Dipropylene glycol methyl ether
Dowanol 33B	= Propylene glycol methyl ether
Dowanol DB	= Diethylene glycol monobutyl ether
Dowanol DE	= Diethylene glycol monoethyl ether
Dowanol DM	= Diethylene glycol monomethyl ether
Dowanol DPM	= Dipropylene glycol methyl ether
Dowanol EB	= Ethylene glycol monobutyl ether
Dowanol EE	= 2-Ethoxyethanol
Dowanol EE	= Ethylene glycol monoethyl ether
Dowanol eipat	= Ethylene glycol isopropyl ether
Dowanol EM	= Ethylene glycol monomethyl ether
Dowanol EP	= Ethylene glycol phenyl ether
Dowanol EPH	= Ethylene glycol phenyl ether
Dowanol PM	= Propylene glycol methyl ether
Dowanol TE	= Ethoxy triglycol
Dowanol TPM	= Tripropylene glycol methyl ether
Dowco 179	= Dursban
Dowfax 2A1	= Dodecyl diphenyl ether disulfonate solution
Dowfume N	= Dichloropropene, dichloropropane mixture
Dowicide 2	= Trichlorophenol
Dowicide 7	= Pentachlorophenol
Dowtherm A	= Dowtherm
Dowtherm e	= o-Dichlorobenzene
Dowtherm	= Dowtherm
Dracyclic acid	= Benzoic acid
Dri-tri	= Sodium phosphate, tribasic
Drycleaner naphtha	= Naphtha: stoddard solvent
Drying oil epoxides	= Epoxidized vegetable oils
DSMA	= Methanearsonic acid, sodium salt

SYNONYM	COMPOUND NAMES
DTDP	= Ditridecyl phthalate
Du-sprex	= Dichlobenil
Dual	= Metolachlor
Duodecylic acid	= Lauric acid
Duodex	= Sodium 2-mercaptobenzothiazol solution
Dursban	= Dursban
Dust-laying oil	= Asphalt blending stocks: roofers flux
Dutch liquid	= Ethylene dichloride
Dylox	= Trichlorfon
Dytol S-91	= n-Decyl alcohol
E3314	= Heptachlor
EAA	= Ethyl acetoacetate
EADC	= Ethylaluminum dichloride
EASC	= Ethylaluminum sesquichloride
EB	= Ethylbenzene
EBDC, sodium salt	= Nabam
Ecrinitrit	= Sodium nitrite
EDC	= Ethylene dichloride
Edible tallow	= Tallow
EDTA-zinc complex	= Diammonium salt of zinc EDTA
EDTA-zinc	= Diammonium salt of zinc EDTA
EDTA zinc salt	= Diammonium salt of zinc EDTA
EDTA	= Ethylenediamine tetracetic acid
Egitol	= Hexachloroethane
Ektasolve DB acetate	= Diethylene glycol monobutyl ether acetate
Ektasolve EP	= Ethylene glycol propyl ether
Electrical insulating oil	= Oils, miscellaneous: transformer
Embafume	= Methyl bromide
Emerald green	= Copper acetoarsenite
Emerssence 1160	= Ethylene glycol phenyl ether
Emery 6705	= Ethylene glycol phenyl ether
Enanthic acid	= Heptanoic acid
Enanthic alcohol	= Heptanol
Endosulfan	= Endosulfan
Endrate	= Ethylenediamine tetracetic acid
Endrin	= Endrin
ENT-16391	= Kepone
ENT 25,719	= Mirex
ENT 262	= Dimethyl phthalate
ENT 27,311	= Dursban
Epichlorohydrin resin	= Bisphenol A diglycidyl ether
Epichlorohydrin	= Epichlorohydrin
Epoxidized drying oils	= Epoxidized vegetable oils
Epoxidized oils	= Epoxidized vegetable oils
Epoxidized tall oil, octyl ester	= Octyl epoxy tallate
Epoxidized vegetable oils	= Epoxidized vegetable oils
1,2-Epoxy-3-butoxy propane	= n-Butyl glycidyl ether
1,2-Epoxybutane	= 1,2-Butylene oxide
1,2-Epoxyethane	= Ethylene oxide
1,2-Epoxypropane	= Propylene oxide
2,3-Epoxypropyl butyl ether	= n-Butyl glycidyl ether
Eriochalcite (anhydrous)	= Copper chloride
Eskimon-22	= Chlorodifluoromethane

SYNONYM	COMPOUND NAMES
Eskimon 11	= Trichlorofluoromethane
Eskimon 12	= Dichlorodifluoromethane
Essence of mirbane	= Nitrobenzene
Essence of Niobe	= Methyl benzoate
Ethanal, trichloro-	= Trichloroacetaldehyde
Ethanal	= Acetaldehyde
Ethane dinitrile	= Cyanogen
Ethane hexachloride	= Hexachloroethane
Ethane pentachloride	= Pentachloroethane
Ethane, 1,1,2-trichloro- 1,2,2-trifluoro-	= 1,1,2-Trichloro-1,2,2-trifluoroethane
Ethane, 1,1,2-trichloro-	= 1,1,2-Trichloroethane
Ethane, 1,2-dibutoxy	= Ethylene glycol dibutyl ether
Ethane, pentachloro-	= Pentachloroethane
Ethane	= Ethane
Ethancarboxylic acid	= Propionic acid
Ethanedial	= Glyoxal
1,2-Ethanediamine	= Ethylenediamine
1,2-Ethanediamine	= Ethylenediamine
Ethanedioic acid, disodium salt	= Sodium oxalate
Ethanedioic acid	= Oxalic acid
1,2-Ethanediol, monoacetate	= Ethylene glycol acetate
1,2-Ethanediol	= Ethylene glycol
Ethanenitrile	= Acetonitrile
Ethanethiol	= Ethyl mercaptan
Ethanoic acid	= Acetic acid
Ethanoic anhydride	= Acetic anhydride
Ethanol, 2-isopropoxy	= Ethylene glycol isopropyl ether
Ethanol	= Ethyl alcohol
Ethanolamine	= Monoethanolamine
Ethanoyl chloride	= Acetyl chloride
Ethene	= Ethylene
Ether cyanatus	= Propionitrile
Ether ethylene glycol dibutyl	= Ethylene glycol dibutyl ether
Ether, bis(2-chloro-1-methylethyl)	= 2,2'-Dichloroisopropyl ether
Ether, hydrochloric	= Ethyl chloride
Ether, vinyl ethyl	= Vinyl ethyl ether
Ether	= Ethyl ether
Ethine	= Acetylene
Ethion	= Ethion
Ethiops mineral	= Mercuric sulfide
1-Ethoxy-2-propanol	= Propylene glycol ethyl ether
2-Ethoxy-3,4-dihydro-2h-pyran	= Ethoxydihydropyran
Ethoxy diglycol	= Diethylene glycol monoethyl ether
Ethoxy propionic acid, ethyl ester	= Ethyl-3-ethoxypropionate
Ethoxy triglycol	= Ethoxy triglycol
Ethoxydihydropyran	= Ethoxydihydropyran
Ethoxyethane	= Ethyl ether
2-Ethoxyethanol	= 2-Ethoxyethanol
2-Ethoxyethanol	= Ethylene glycol monoethyl ether
2-(2-Ethoxyethoxy) ethanol	= Diethylene glycol monoethyl ether
2-Ethoxyethyl acetate	= 2-Ethoxyethyl acetate
2-Ethoxyethyl acetate	= Ethylene glycol monoethyl ether acetate
Ethoxylated dodecanol	= Ethoxylated dodecanol
Ethoxylated dodecyl alcohol	= Ethoxylated dodecanol

**SYNONYM****COMPOUND NAMES**

Ethoxylated lauryl alcohol	=	Ethoxylated dodecanol
Ethoxylated myristyl alcohol	=	Ethoxylated tetradecanol
Ethoxylated nonylphenol	=	Ethoxylated nonylphenol
Ethoxylated pentadecanol	=	Ethoxylated pentadecanol
Ethoxylated pentadecylalcohol	=	Ethoxylated pentadecanol
Ethoxylated tetradecanol	=	Ethoxylated tetradecanol
Ethoxylated tetradecyl alcohol	=	Ethoxylated tetradecanol
Ethoxylated tridecanol	=	Ethoxylated tridecanol
Ethoxylated tridecyl alcohol	=	Ethoxylated tridecanol
Ethoxytriethylene glycol	=	Ethoxy triglycol
2-Ethyl-1-hexanol hydrogen phosphate	=	Di-(2-ethylhexyl)phosphoric acid
2-Ethyl-1-hexanol	=	2-Ethyl hexanol
2-Ethyl-1-hexylamine	=	2-Ethylhexylamine
2-Ethyl-2-hexenal	=	2-Ethyl-3-propylacrolein
5-Ethyl-2-methyl pyridine	=	Methylethylpyridine
6-Ethyl-2-methylaniline	=	2-Methyl-6-ethyl aniline
1-Ethyl-2-methylbenzene	=	2-Ethyl toluene
5-Ethyl-2-picoline	=	Methylethylpyridine
Ethyl-3-ethoxypropionate	=	Ethyl-3-ethoxypropionate
2-Ethyl-3-propylacrolein	=	2-Ethyl-3-propylacrolein
2-Ethyl-3-propylacrylaldehyde	=	2-Ethyl-3-propylacrolein
2-Ethyl-1-butanol	=	Ethyl butanol
N-Ethyl-n-butylamine	=	N-Ethyl-n-butylamine
6-Ethyl-o-toluidine	=	2-Methyl-6-ethyl aniline
Ethyl 2-hydroxypropanoate	=	Ethyl lactate
Ethyl 2-hydroxypropionate	=	Ethyl lactate
Ethyl 2-methacrylate	=	Ethyl methacrylate
Ethyl 2-methyl-2-propenoate	=	Ethyl methacrylate
Ethyl 2-propenoate	=	Ethyl acrylate
Ethyl 3-oxobutanoate	=	Ethyl acetoacetate
Ethyl acetate	=	Ethyl acetate
Ethyl acetoacetate	=	Ethyl acetoacetate
Ethyl acetone	=	2-Pentanone
Ethyl acrylate	=	Ethyl acrylate
Ethyl alcohol	=	Ethyl alcohol
Ethyl aldehyde	=	Acetaldehyde
Ethyl alpha-hydroxypropionate	=	Ethyl lactate
Ethyl alpha-methylmethacrylate	=	Ethyl methacrylate
Ethyl amyl ketone	=	Ethyl amyl ketone
Ethyl beta-ethoxypropionate	=	Ethyl-3-ethoxypropionate
Ethyl butanoate	=	Ethyl butyrate
Ethyl butanol	=	Ethyl butanol
Ethyl butyl ketone	=	Ethyl butyl ketone
Ethyl butyrate	=	Ethyl butyrate
Ethyl carbonate	=	Diethyl carbonate
Ethyl chloroacetate	=	Ethyl chloroacetate
Ethyl chloride	=	Ethyl chloride
Ethyl chloroacetate	=	Ethyl chloroacetate
Ethyl chlorocarbonate	=	Ethyl chloroformate
Ethyl chloroethanoate	=	Ethyl chloroacetate
Ethyl chloroformate	=	Ethyl chloroformate
Ethyl chlorothioformate	=	Ethyl chlorothioformate
Ethyl chlorothiolformate	=	Ethyl chlorothioformate
Ethyl cyclohexane	=	Ethyl cyclohexane

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Ethyl dichlorophosphate	= Ethyl phosphorodichloridate
Ethyl dl-lactate	= Ethyl lactate
Ethyl ethanoate	= Ethyl acetate
Ethyl ether	= Ethyl ether
Ethyl formate	= Ethyl formate
Ethyl formic ester	= Ethyl formate
2-Ethyl hexaldehyde	= Ethylhexaldehyde
2-Ethyl hexanol	= 2-Ethyl hexanol
Ethyl hexyl phthalate	= Ethyl hexyl phthalate
Ethyl hexyl tallate	= Ethyl hexyl tallate
Ethyl lactate	= Ethyl lactate
Ethyl mercaptan	= Ethyl mercaptan
Ethyl methacrylate-inhibited	= Ethyl methacrylate
Ethyl methacrylate	= Ethyl methacrylate
Ethyl methanoate	= Ethyl formate
Ethyl methyl ketone	= Methyl ethyl ketone
n-Ethyl morpholine	= n-Ethyl morpholine
Ethyl nitrile	= Acetonitrile
Ethyl nitrite	= Ethyl nitrite
Ethyl orthosilicate	= Ethyl silicate
Ethyl parathion	= Parathion
Ethyl phosphate	= Triethyl phosphate
Ethyl phosphonothioic dichloride	= Ethyl phosphonothioic dichloride
Ethyl phosphorodichloridate	= Ethyl phosphorodichloridate
Ethyl phosphorodichloridothionate	= Ethyl phosphonothioic dichloride
Ethyl phthalate	= Diethyl phthalate
Ethyl propionate	= Ethyl propionate
Ethyl propionyl	= Diethyl ketone
Ethyl silicate 40	= Ethyl silicate
Ethyl silicate condensed	= Ethyl silicate
Ethyl silicate	= Ethyl silicate
Ethyl sulfate	= Diethyl sulfate
Ethyl sulfhydrate	= Ethyl mercaptan
Ethyl thionophosphoryl dichloride	= Ethyl phosphonothioic dichloride
2-Ethyl toluene	= 2-Ethyl toluene
Ethyl vinyl ether	= Vinyl ethyl ether
Ethylacetic acid	= n-Butyric acid
Ethylaluminum dichloride	= Ethylaluminum dichloride
Ethylaluminum sesquichloride	= Ethylaluminum sesquichloride
Ethylamine	= Ethylamine
Ethylbenzene	= Ethylbenzene
2-Ethylbutyl alcohol	= Ethyl butanol
Ethylbutylamine	= N-Ethyl-n-butylamine
2-Ethylcaproaldehyde	= Ethylhexaldehyde
alpha-Ethylcaproic acid	= 2-Ethylhexanoic acid
Ethylcarbinol	= n-Propyl alcohol
Ethylcyanide	= Propionitrile
N-Ethylcyclohexanamine	= N-Ethylcyclohexylamine
N-Ethylcyclohexylamine	= N-Ethylcyclohexylamine
Ethylchlorosilane	= Ethylchlorosilane
Ethylene acetate	= Ethylene glycol diacetate
Ethylene aldehyde	= Acrolein
Ethylene bis (iminodiacetic acid)	= Ethylenediamine tetracetic acid
Ethylene bromide	= Ethylene dibromide

**SYNONYM****COMPOUND NAMES**

Ethylene carboxylic acid	= Acrylic acid
Ethylene chlorhydrin	= Ethylene chlorohydrin
Ethylene chloride	= Ethylene dichloride
Ethylene chlorohydrin	= Ethylene chlorohydrin
Ethylene cyanohydrin	= Ethylene cyanohydrin
Ethylene diacetate	= Ethylene glycol diacetate
Ethylene dibromide	= Ethylene dibromide
Ethylene dichloride	= Ethylene dichloride
Ethylene dihydrate	= Ethylene glycol
Ethylene glycol acetate	= Ethylene glycol acetate
Ethylene glycol diacetate	= Ethylene glycol diacetate
Ethylene glycol dibutyl ether	= Ethylene glycol dibutyl ether
Ethylene glycol diethyl ether	= Ethylene glycol diethyl ether
Ethylene glycol dihydroxydiethyl ether	= Triethylene glycol
Ethylene glycol dimethyl ether	= Ethylene glycol dimethyl ether
Ethylene glycol ethyl ether	= 2-Ethoxyethanol
Ethylene glycol ethyl ether	= Ethylene glycol monoethyl ether
Ethylene glycol isopropyl ether	= Ethylene glycol isopropyl ether
Ethylene glycol methyl ether acetate	= Ethylene glycol methyl ether acetate
Ethylene glycol monobutyl ether acetate	= Ethylene glycol monobutyl ether acetate
Ethylene glycol monobutyl ether	= Ethylene glycol monobutyl ether
Ethylene glycol monoethyl ether acetate	= 2-Ethoxyethyl acetate
Ethylene glycol monoethyl ether acetate	= Ethylene glycol monoethyl ether acetate
Ethylene glycol monoethyl ether	= 2-Ethoxyethanol
Ethylene glycol monoethyl ether	= Ethylene glycol monoethyl ether
Ethylene glycol monomethyl ether acetate	= Ethylene glycol methyl ether acetate
Ethylene glycol monomethyl ether	= Ethylene glycol monomethyl ether
Ethylene glycol monopropyl ether	= Ethylene glycol propyl ether
Ethylene glycol phenyl ether	= Ethylene glycol phenyl ether
Ethylene glycol propyl ether	= Ethylene glycol propyl ether
Ethylene glycol, monoacetate	= Ethylene glycol acetate
Ethylene glycol	= Ethylene glycol
Ethylene oxide	= Ethylene oxide
Ethylene	= Ethylene
Ethylenebis [dithiocarbamic acid], disodium salt	= Nabam
Ethylenediamine tetracetic acid	= Ethylenediamine tetracetic acid
Ethylenediamine	= Ethylenediamine
Ethylenediamine	= Ethylenediamine
trans-1,2-Ethylenedicarboxylic acid	= Fumaric acid
cis-1,2-Ethylenedicarboxylic acid	= Maleic acid
(Ethylenedinitrilo) tetraacetic acid	= Ethylenediamine tetracetic acid
2,2'-Ethylenedioxydiethanol	= Triethylene glycol
Ethyleneimine	= Ethyleneimine
Ethylhexaldehyde	= Ethylhexaldehyde
2-Ethylhexanal	= Ethylhexaldehyde
2-Ethylhexanoic acid	= 2-Ethylhexanoic acid
2-Ethylhexoic acid	= 2-Ethylhexanoic acid
2-Ethylhexyl acetate	= 2-Ethylhexyl acetate
2-Ethylhexyl acrylate	= 2-Ethylhexyl acrylate
2-Ethylhexyl alcohol	= 2-Ethyl hexanol
Bis-(2-Ethylhexyl) hydrogen phosphate	= Di-(2-ethylhexyl)phosphoric acid
Bis(2-Ethylhexyl) phtalate	= Di-(2-ethylhexyl)phtalate

SYNONYM	COMPOUND NAMES
bis-(2-Ethylhexyl) phthalate	= Dioctyl phthalate
Bis-(2-Ethylhexyl) sodium sulfosuccinate	= Dioctyl sodium sulfosuccinate
Bis-(2-Ethylhexyl)phthalate	= Ethyl hexyl phthalate
2-Ethylhexyl, 2-propenoate	= 2-Ethylhexyl acrylate
2-Ethylhexylamine	= 2-Ethylhexylamine
beta-Ethylhexylamine	= 2-Ethylhexylamine
Ethylidene chloride	= 1,1-Dichloroethane
Ethylidene dichloride	= 1,1-Dichloroethane
Ethylidene diethylether	= Acetal
Ethylidene difluoride	= 1,1-Difluoroethane
Ethylidene fluoride	= 1,1-Difluoroethane
Ethylidene norbornene	= Ethylidene norbornene
5-Ethylidenebicyclo (2, 2, 1)hept-2-ene	= Ethylidene norbornene
Ethylidenenorbornylene	= Ethylidene norbornene
Ethylidenenorcamphene	= Ethylidene norbornene
o-Ethylmethylbenzene	= 2-Ethyl toluene
Ethylmethylketone peroxide	= 2-Butanone peroxide
n-Ethylmorpholine	= n-Ethyl morpholine
4-Ethylmorpholine	= n-Ethyl morpholine
2-Ethylphenol	= Ethylphenol
Ethylphenol	= Ethylphenol
o-Ethylphenol	= Ethylphenol
Ethylphenyldichlorosilane	= Ethylphenyldichlorosilane
Ethylpyrophosphate	= Tetraethyl pyrophosphate
Ethylsilicon trichloride	= Ethyltrichlorosilane
o-Ethyltoluene	= 2-Ethyl toluene
Ethyltrichlorosilane	= Ethyltrichlorosilane
Ethylzinc	= Diethylzinc
Ethyne	= Acetylene
Ethynyl carbinol	= Propargyl alcohol
Ethynyl methanol	= Propargyl alcohol
Eufin	= Diethyl carbonate
Eunatrol	= Oleic acid, sodium salt
Exitelite	= Antimony trioxide
F-11	= Trichlorofluoromethane
F-114	= Dichlorotetrafluoroethane
F-12	= Dichlorodifluoromethane
F-124	= Monochlorotetrafluoroethane
F-13	= Monochlorotrifluoromethane
F-21	= Dichloromonofluoromethane
Falkitol	= Hexachloroethane
Fasciolin	= Hexachloroethane
Fast red GG base	= 4-Nitroaniline
Fast red IG base	= 4-Nitroaniline
Fast red TR base	= 4-Chloro-o-toluidine
Fast white	= Lead sulfate
Fenoprop	= 2-(2,4,5-Trichlorophenoxy) propanoic acid
Fermentation alcohol	= Ethyl alcohol
Fermentation amyl alcohol	= Isoamyl alcohol
Fermentation butyl alcohol	= Isobutyl alcohol
Fermine	= Dimethyl phthalate
Ferric ammonium citrate, brown	= Ferric ammonium citrate
Ferric ammonium citrate, green	= Ferric ammonium citrate



SYNONYM	COMPOUND NAMES
Ferric ammonium citrate	= Ferric ammonium citrate
Ferric ammonium oxalate	= Ferric ammonium oxalate
Ferric chloride, anhydrous	= Ferric chloride
Ferric chloride, hexahydrate	= Ferric chloride
Ferric chloride	= Ferric chloride
Ferric fluoride	= Ferric fluoride
Ferric glycerophosphate	= Ferric glycerophosphate
Ferric nitrate nonahydrate	= Ferric nitrate
Ferric nitrate	= Ferric nitrate
Ferric sulfate	= Ferric sulfate
Ferrophosphorus	= Ferrophosphorus
Ferrosilicon	= Ferrosilicon
Ferrous ammonium sulfate hexahydrate	= Ferrous ammonium sulfate
Ferrous ammonium sulfate	= Ferrous ammonium sulfate
Ferrous borofluoride	= Ferrous fluoroborate
Ferrous chloride tetrahydrate	= Ferrous chloride
Ferrous chloride	= Ferrous chloride
Ferrous fluoroborate	= Ferrous fluoroborate
Ferrous oxalate dihydrate	= Ferrous oxalate
Ferrous oxalate	= Ferrous oxalate
Ferrous sulfate	= Ferrous sulfate
Ferrox	= Ferrous oxalate
Fertilizer acid	= Sulfuric acid
Filmerine	= Sodium nitrite
Flaxseed oil	= Oils, miscellaneous: linseed
Flexol plasticizer DIOP	= Diisooctyl phthalate
Flouristan	= Stannous flouride
Flowers of antimony	= Antimony trioxide
Fluophosgene	= Carbon oxyfluoride
Fluorane 114	= Dichlorotetrafluoroethane
Fluorine	= Fluorine
2-Fluoro-1-methylbenzene	= 2-Fluorotoluene
4-Fluoro-1-methylbenzene	= 4-Fluorotoluene
1-Fluoro-2-methylbenzene	= 2-Fluorotoluene
1-Fluoro-3-methylbenzene	= 3-Fluorotoluene
1-Fluoro-4-methylbenzene	= 4-Fluorotoluene
Fluoroacetic acid, sodium salt	= Sodium fluoroacetate
o-Fluoroaniline	= 2-Fluoroaniline
2-Fluoroaniline	= 2-Fluoroaniline
4-Fluoroaniline	= 4-Fluoroaniline
p-Fluoroaniline	= 4-Fluoroaniline
2-Fluorobenzenamine	= 2-Fluoroaniline
4-Fluorobenzenamine	= 4-Fluoroaniline
Fluorobenzene	= Fluorobenzene
Fluorodichloromethane	= Dichloromonofluoromethane
Fluoroethylene	= Vinyl fluoride
Fluoroformyl fluoride	= Carbon oxyfluoride
2-Fluorophenylamine	= 2-Fluoroaniline
4-Fluorophenylamine	= 4-Fluoroaniline
Fluorophosgene	= Carbon oxyfluoride
Fluorosilic acid	= Fluosilicic acid
Fluorosilic acid	= Hydrofluorosilicic acid (25% or less)
Fluorosulfonic acid	= Fluosulfonic acid
Fluorosulfuric acid	= Fluosulfonic acid

SYNONYM	COMPOUND NAMES
2-Fluorotoluene	= 2-Fluorotoluene
o-Fluorotoluene	= 2-Fluorotoluene
m-Fluorotoluene	= 3-Fluorotoluene
3-Fluorotoluene	= 3-Fluorotoluene
4-Fluorotoluene	= 4-Fluorotoluene
p-Fluorotoluene	= 4-Fluorotoluene
Fluorspar	= Calcium fluoride
Fluosilicic acid	= Fluosilicic acid
Fluospar	= Calcium fluoride
Fluosulfonic acid	= Fluosulfonic acid
Fluxing oil	= Asphalt blending stocks: roofers flux
Foliage oil	= Oils, miscellaneous: spray
Formaldehyde dimethylacetol	= Methyl formal
Formaldehyde polymer	= Paraformaldehyde
Formaldehyde solution	= Formaldehyde solution
Formalin	= Formaldehyde solution
Formalith	= Formaldehyde solution
Formamide	= Formamide
Formic acid, amide	= Formamide
Formic acid, ammonium salt	= Ammonium formate
Formic acid, ethyl ester	= Ethyl formate
Formic acid, methyl ester	= Methyl formate
Formic acid, zinc salt	= Zinc formate
Formic acid	= Formic acid
Formic aldehyde solution	= Formaldehyde solution
Formic ether	= Ethyl formate
Formyl tribromide	= Bromoform
Formylformic acid	= Glyoxylic acid (50% or less)
Formylic acid	= Formic acid
2-Formylphenol	= Salicylaldehyde
Fowlers solution	= Potassium arsenite
Freemans white lead	= Lead sulfate
French verdigris	= Copper subacetate
Freon-22	= Chlorodifluoromethane
Freon 11	= Trichlorofluoromethane
Freon 113	= 1,1,2-Trichloro-1,2,2-trifluoroethane
Freon 114	= Dichlorotetrafluoroethane
Freon 12	= Dichlorodifluoromethane
Freon 13	= Monochlorotrifluoromethane
Freon 21	= Dichloromonofluoromethane
Frigen 11	= Trichlorofluoromethane
Frigen 113TR	= 1,1,2-Trichloro-1,2,2-trifluoroethane
Frigen 12	= Dichlorodifluoromethane
Fuel oil 1-D	= Oils: diesel
Fuel oil 2-D	= Oils: diesel
Fuel oil no. 1	= Jet fuels: JP-1
Fuel oil no. 1	= Kerosene
Fuel oil no. 1	= Oils, miscellaneous: range
Fumaric acid	= Fumaric acid
Fumigrain	= Acrylonitrile
Fuming liquid arsenic	= Arsenic trichloride
Fuming sulfuric acid	= Oleum
Furadan	= Carbofuran
Fural/pyromucic aldehyde	= Furfural

SYNONYM	COMPOUND NAMES
Fural	= Furfural
2-Furaldehyde	= Furfural
Furan	= Furan
2-Furancarbinol	= Furfuryl alcohol
2,5-Furanedione	= Maleic anhydride
Furfural	= Furfural
Furfuralcohol	= Furfuryl alcohol
Furfuraldehyde	= Furfural
Furfuran	= Furan
Furfurole	= Furfural
Furfuryl alcohol	= Furfuryl alcohol
2-Furylcarbinol	= Furfuryl alcohol
Fusel oil	= Isoamyl alcohol
Fyde	= Formaldehyde solution
Galena	= Lead sulfide
Gallic acid monohydrate	= Gallic acid
Gallic acid	= Gallic acid
Gallotannic acid	= Tannic acid
Gallotannin	= Tannic acid
Gammexane	= gamma-Benzene hexachloride
Gas oil: cracked	= Gas oil: cracked
Gasoline blending stocks: alkylates	= Gasoline blending stocks: alkylates
Gasoline blending stocks: reformates	= Gasoline blending stocks: reformates
Gasolines: automotive (<4.23g lead/gal)	= Gasolines: automotive (<4.23g lead/gal)
Gasolines: aviation (< 4.86g lead/gal)	= Gasolines: aviation (< 4.86g lead/gal)
Gasolines: casinghead	= Gasolines: casinghead
Gasolines: polymer	= Gasolines: polymer
Gasolines: straight run	= Gasolines: straight run
GC-1189	= Kepone
Gelbin yellow ultramarine	= Calcium chromate
Gemalgene	= Trichloroethylene
Genetron-22	= Chlorodifluoromethane
Genetron 11	= Trichlorofluoromethane
Genetron 1113	= Trifluorochloroethylene
Genetron 12	= Dichlorodifluoromethane
Gerhardite	= Copper nitrate
Glacial acetic acid	= Acetic acid
D-Glucitol	= Sorbitol
Glucose solution	= Dextrose solution
Glutaraldehyde solution	= Glutaraldehyde solution
Glycerine	= Glycerine
Glycerite	= Tannic acid
Glycerol trichlorhydrin	= 1,2,3-Trichloropropane
Glycerol	= Glycerine
Glyceryl trichlorhydrin	= 1,2,3-Trichloropropane
Glycidyl alpha-methyl acrylate	= Glycidyl methacrylate
Glycidyl isopropyl ether	= Isopropyl glycidyl ether
Glycidyl methacrylate	= Glycidyl methacrylate
Glycine copper complex	= Copper glycinate
Glycocoll-copper	= Copper glycinate
Glycol-monoacetin	= Ethylene glycol acetate
Glycol butyl ether	= Ethylene glycol monobutyl ether
Glycol chlorohydrin	= Ethylene chlorohydrin
Glycol cyanohydrin	= Ethylene cyanohydrin

SYNONYM	COMPOUND NAMES
Glycol diacetate	= Ethylene glycol diacetate
Glycol dibromide	= Ethylene dibromide
Glycol dichloride	= Ethylene dichloride
Glycol monoacetate	= Ethylene glycol acetate
Glycol monobutyl ether acetate	= Ethylene glycol monobutyl ether acetate
Glycol monoethyl ether acetate	= 2-Ethoxyethyl acetate
Glycol monoethyl ether acetate	= Ethylene glycol monoethyl ether acetate
Glycol monoethyl ether	= 2-Ethoxyethanol
Glycol monoethyl ether	= Ethylene glycol monoethyl ether
Glycol monomethyl ether acetate	= Ethylene glycol methyl ether acetate
Glycol monomethylether	= Ethylene glycol monomethyl ether
Glycol	= Ethylene glycol
Glyoxal	= Glyoxal
Glyoxylic acid (50% or less)	= Glyoxylic acid (50% or less)
Grain alcohol	= Ethyl alcohol
Grape sugar solution	= Dextrose solution
Gray arsenic	= Arsenic
Green nickel oxide	= Nickel hydroxide
Green oil	= Anthracene
Green verdigris	= Copper subacetate
Green vitriol	= Ferrous sulfate
Gum turpentine	= Turpentine
Gusathion insecticide	= Azinphos methyl
Guthion insecticide	= Azinphos methyl
Halocarbon 21	= Dichloromonofluoromethane
Halogenated waxes	= Polychlorinated biphenyl
Halon 112	= Dichloromonofluoromethane
Halon 122	= Dichlorodifluoromethane
Halon 241	= Monochlorotetrafluoroethane
Halon 242	= Dichlorotetrafluoroethane
Hartshorn	= Ammonium carbonate
Hatcol XPE	= 1-Phenyl-1-xylyl ethane
HCBD	= Hexachlorobutadiene
HEA	= 2-Hydroxyethyl acrylate
Hendecanoic acid	= Undecanoic acid
Hendecanoic alcohol	= Undecanol
1-Hendecanol	= Undecanol
Heod	= Dieldrin
Heptachlor	= Heptachlor
1,4,5,6,7,8,8a- Heptachlorodicyclopentadiene	= Heptachlor
1-Heptadecanecarboxylic acid	= Stearic acid
cis-8-Heptadecylenecarboxylic acid	= Oleic acid
Heptane	= Heptane
n-Heptane	= Heptane
1-Heptanecarboxylic acid	= Octanoic acid
Heptanoic acid	= Heptanoic acid
1-Heptanol	= Heptanol
Heptanol	= Heptanol
3-Heptanone	= Ethyl butyl ketone
2-Heptanone	= Methylamyl ketone
2-Heptanone	= n-Amyl methyl ketone
Heptanyl acetate	= Heptyl acetate
1-Heptene	= 1-Heptene

SYNONYM	COMPOUND NAMES
Hepthlic acid	= Heptanoic acid
n-Heptoic acid	= Heptanoic acid
Heptyl acetate	= Heptyl acetate
n-Heptyl acetate	= Heptyl acetate
1-Heptyl acetate	= Heptyl acetate
Heptyl alcohol	= Heptanol
Heptylcarbinol	= Octanol
Heptylene	= 1-Heptene
n-Heptylethylene	= 1-Nonene
n-Heptylic acid	= Heptanoic acid
Hexa	= Hexamethylenetetramine
Hexachloro-1,3-butadiene	= Hexachlorobutadiene
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4-endo-exo-5,8-dimethanonaphthalene.	= Aldrin
endo,exo-1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4:5,8-dimethanonaphthalene	= Dieldrin
Hexachlorobenzene	= Hexachlorobenzene
Hexachlorobutadiene	= Hexachlorobutadiene
1,2,3,4,5,6-Hexachlorocyclohexane	= gamma-Benzene hexachloride
Hexachlorocyclopentadiene dimer	= Mirex
Hexachlorocyclopentadiene	= Hexachlorocyclopentadiene
Hexachloroethane	= Hexachloroethane
Hexachlorophene	= Hexachlorophene
Hexacid 1095	= Decanoic acid
Hexacid 698	= Hexanoic acid
Hexacid 898	= Octanoic acid
Hexadecyl sulfate, sodium salt	= Hexadecyl sulfate, sodium salt
Hexadecyltrimethylammonium chloride	= Hexadecyltrimethylammonium chloride
Hexadrin	= Endrin
Hexafluosilicic acid	= Fluosilicic acid
Hexahydric alcohol	= Sorbitol
Hexahydro-1,4-diazine	= Piperazine
Hexahydro-2h-azepine-2-one	= Caprolactam
Hexahydroaniline	= Cyclohexylamine
Hexahydroazepine	= Hexamethylenimine
Hexahydrobenzene	= Cyclohexane
Hexahydrocresols	= 2-Methylcyclohexanol
Hexahydrocumene	= Isopropyl cyclohexane
Hexahydrophenol	= Cyclohexanol
Hexahydropyrazine	= Piperazine
Hexahydrotoluene	= Methylcyclohexane
n-Hexaldehyde	= n-Hexaldehyde
Hexalin	= Cyclohexanol
Hexamethylene	= Cyclohexane
Hexamethylenediamine	= Hexamethylenediamine
Hexamethylenetetramine	= Hexamethylenetetramine
Hexamethylenimine	= Hexamethylenimine
Hexamine	= Hexamethylenetetramine
Hexanal	= n-Hexaldehyde
Hexanaphthene	= Cyclohexane
Hexane carboxylic acid	= Heptanoic acid

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Hexane, 1,6-diisocyanato- 2,2,4(2,4,4)-trimethyl-	= Trimethylhexamethylene diisocyanate
Hexane	= n-Hexane
n-Hexane	= n-Hexane
1,6-Hexanediamine, 2,2,4(or2,4,4)-trimethyl-	= Trimethyl hexamethylene diamine
1,6-Hexanediamine	= Hexamethylenediamine
Hexanedinitrile	= Adiponitrile
Hexanedioic acid, dimethyl ester	= Dimethyl adipate
Hexanedioic acid	= Adipic acid
1,2,3,4,5,6-Hexannehexol	= Sorbitol
Hexanoic acid, 2-ethyl-	= 2-Ethylhexanoic acid
Hexanoic acid	= Hexanoic acid
n-Hexanol	= 1-Hexanol
1-Hexanol	= 1-Hexanol
2-Hexanone	= Methyl n-butyl ketone
Hexaplas M/1B	= Diisobutyl phthalate
Hexaplas M/O	= Diisooctyl phthalate
alpha-Hexene	= 1-Hexene
1-Hexene	= 1-Hexene
iso-Hexene	= 2-Methyl-1-pentene
n-Hexoic acid	= Hexanoic acid
Hexone	= Methyl isobutyl ketone
n-Hexyl acetate	= Hexyl acetate
Hexyl acetate	= Hexyl acetate
1-Hexyl acetate	= Hexyl acetate
Hexyl acetate	= Methyl amyl acetate
Hexyl alcohol, acetate	= Hexyl acetate
n-Hexyl alcohol	= 1-Hexanol
sec-Hexyl alcohol	= Ethyl butanol
Hexyl carbitol	= Diethylene glycol n-hexyl ether
Hexyl ethanoate	= Hexyl acetate
Hexylene glycol	= Hexylene glycol
Hexylene	= 1-Hexene
HFSA	= Hydrofluorosilicic acid (25% or less)
HHDN	= Aldrin
Hi-dry	= Tetraethylene glycol
High speed bearing oil	= Oils, miscellaneous: spindle
Higher fatty alcohol	= Tallow fatty alcohol
HMDA	= Hexamethylenediamine
Home-heating oil	= Oils, fuel: 2
Homopiperidine	= Hexamethylenimine
Household ammonia	= Ammonium hydroxide (<28% aqueous ammonia)
HSDB 5700	= 2-Hydroxy-4-(methylthio)-butanoic acid
HTH dry chlorine	= Calcium hypochlorite
HTH	= Calcium hypochlorite
Hydracrylic acid, beta-lactone	= beta-Propiolactone
Hydracrylonitrile	= Ethylene cyanohydrin
Hydrazine-benzene	= Phenylhydrazine
Hydrazine	= Hydrazine
Hydrazinobenzene	= Phenylhydrazine
Hydrazoic acid, sodium salt	= Sodium azide
Hydrobromic acid monoammoniate	= Ammonium bromide

SYNONYM	COMPOUND NAMES
Hydrobromic acid, anhydrous	= Hydrogen bromide
Hydrochloric acid, anhydrous	= Hydrogen chloride
Hydrochloric acid	= Hydrochloric acid
Hydrocyanic acid, sodium salt	= Sodium cyanide
Hydrocyanic acid	= Hydrogen cyanide
Hydrocyanic ether	= Propionitrile
Hydrofluoric acid, anhydrous	= Hydrogen fluoride
Hydrofluoric acid	= Hydrofluoric acid
Hydrofluorosilicic acid (25% or less)	= Hydrofluorosilicic acid (25% or less)
Hydrofluosilic acid	= Fluosilicic acid
Hydrofol acid 1255 or 1295	= Lauric acid
Hydrogen bromide, anhydrous	= Hydrogen bromide
Hydrogen bromide	= Hydrogen bromide
Hydrogen chloride	= Hydrogen chloride
Hydrogen cyanide	= Hydrogen cyanide
Hydrogen fluoride	= Hydrogen fluoride
Hydrogen hexafluorosilicate	= Fluosilicic acid
Hydrogen peroxide carbamide	= Urea peroxide
Hydrogen peroxide	= Hydrogen peroxide
Hydrogen sulfide	= Hydrogen sulfide
Hydrogen	= Hydrogen
para-Hydrogen	= Hydrogen
1-Hydroperoxycyclohexyl	= Cyclohexanone peroxide
Hydroquinol	= Hydroquinone
Hydroquinone	= Hydroquinone
N-Hydroxyethyl-1,2-ethanediamine	= Aminoethylethanolamine
2-Hydroxy-1,2,3-propane-tricarboxylic acid	= Citric acid
1-Hydroxy-2-cyanoethane	= Ethylene cyanohydrin
2-Hydroxy-2-methyl-3-butyne	= Methyl butynol
2-Hydroxy-2-methylpropanenitrile	= Acetone cyanohydrin
1-Hydroxy-2-phenoxyethane	= Ethylene glycol phenyl ether
1-Hydroxy-2,4-dinitro-benzene	= 2,4-Dinitrophenol
6-Hydroxy-3-(2h)-pyridazinone	= Maleic hydrazide
2-Hydroxy-4-(methylthio)-butanoic acid	= 2-Hydroxy-4-(methylthio)-butanoic acid
4-Hydroxy-4-methyl-2-pentanone	= Diacetone alcohol
2-Hydroxy-m-xylene	= Xylenol
beta-Hydroxy-tricarboxylic acid	= Citric acid
Alpha-Hydroxy isobutronitrile	= Acetone cyanohydrin
O-Hydroxybenzaldehyde	= Salicylaldehyde
Hydroxybenzene	= Phenol
o-Hydroxybenzoic acid	= Salicylic acid
1-Hydroxybutane	= n-Butyl alcohol
2-Hydroxybutane	= sec-Butyl alcohol
2-Hydroxychlorobenzene	= o-Chlorophenol
Hydroxycyclohexane	= Cyclohexanol
1-Hydroxycyclohexyl peroxide	= Cyclohexanone peroxide
Hydroxydimethylarsine oxide	= Cacodylic acid
Bis-[2-(2-Hydroxyethoxy) ethyl ether	= Tetraethylene glycol
2-Hydroxyethyl 2-propenoate	= 2-Hydroxyethyl acrylate
2-Hydroxyethyl acetate	= Ethylene glycol acetate
2-Hydroxyethyl acrylate	= 2-Hydroxyethyl acrylate
beta-Hydroxyethyl acrylate	= 2-Hydroxyethyl acrylate
b-Hydroxyethyl isopropyl ether	= Ethylene glycol isopropyl ether

SYNONYM	COMPOUND NAMES
Bis-(2-Hydroxyethyl) amine	= Diethanolamine
Bis-(2-Hydroxyethyl) ether	= Diethylene glycol
Tris(Hydroxyethyl)amine	= Triethanolamine
2-Hydroxyethylamine	= Monoethanolamine
N-Beta-Hydroxyethylethylenediamine	= Aminoethylethanolamine
1-Hydroxyheptane	= Heptanol
1-Hydroxyhexane	= 1-Hexanol
Hydroxylamine sulfate	= Hydroxylamine sulfate
Hydroxylamine	= Hydroxylamine
2,2-bis(Hydroxymethyl)-1,3-propanediol	= Pentaerythritol
2-Hydroxymethylfuran	= Furfuryl alcohol
2-Hydroxynitrobenzene	= 2-Nitrophenol
3-Hydroxynitrobenzene	= 3-Nitrophenol
m-Hydroxynitrobenzene	= 3-Nitrophenol
4-Hydroxynitrobenzene	= 4-Nitrophenol
2,2-Bis(4-Hydroxyphenyl)propane	= Bisphenol A
3-Hydroxypropanenitrile	= Ethylene cyanohydrin
2-Hydroxypropanoic acid	= Lactic acid
alpha-Hydroxypropionic acid	= Lactic acid
2-Hydroxypropionitrile	= Lactonitrile solution (80% or less)
Hydroxypropyl acrylate	= Hydroxypropyl acrylate
Hydroxypropyl methacrylate	= Hydroxypropyl methacrylate
Tris(2-Hydroxypropyl) amine	= Triisopropanolamine
2-Hydroxypropylamine	= Monoisopropanolamine
Alpha-Hydroxytoluene	= Benzyl alcohol
3-Hydroxytoluene	= m-Cresol
o-Hydroxytoluene	= o-Cresol
4-Hydroxytoluene	= p-Cresol
Hydroxytoluenes	= Cresols
beta-Hydroxytricarballic acid	= Citric acid
2-Hydroxytriethylamine	= N,N-Diethylethanolamine
Hylene M50	= Diphenylmethane diisocyanate
Hylene T	= Toluene 2,4-diisocyanate
Hystrene 9512	= Lauric acid
Hytrol O	= Cyclohexanone
IBN	= Isobutyronitrile
Illuminating oil	= Kerosene
1,1'-Iminodi-2-propanol	= Diisopropanolamine
2,2'-Iminodiethanol	= Diethanolamine
Imperial green	= Copper acetoarsenite
Inedible tallow	= Tallow
Insulating oil	= Oils, miscellaneous: transformer
Iodomethane	= Methyl iodide
IPDI	= Isophorone diisocyanate
Iron (ous) sulfate	= Ferrous sulfate
Iron ammonium sulfate	= Ferrous ammonium sulfate
Iron dichloride	= Ferrous chloride
Iron fluoride	= Ferric fluoride
Iron III chloride	= Ferric chloride
Iron perchloride	= Ferric chloride
Iron protochloride	= Ferrous chloride
Iron protoxalate	= Ferrous oxalate
Iron sesquisulfate	= Ferric sulfate
Iron tersulfate	= Ferric sulfate



<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Iron trichloride	= Ferric chloride
Iron vitriol	= Ferrous sulfate
Iron(III) sulfate	= Ferric sulfate
Isceon 11	= Trichlorofluoromethane
Isoamyl alcohol	= Isoamyl alcohol
Isoamyl ethanoate	= Isoamylacetate
Isoamylacetate	= Isoamylacetate
Isobutane	= Isobutane
Isobutanol-2-amine	= 2-Amino-2-methyl-1-propanol (90% or less)
Isobutanol amine	= 2-Amino-2-methyl-1-propanol (90% or less)
Isobutanol	= Isobutyl alcohol
Isobutene trimer	= Triisobutylene
Isobutene	= Isobutylene
Isobutyl 2-methyl-2-propenoate	= Isobutyl methacrylate
Isobutyl 2-propenoate	= iso-butyl acrylate
Isobutyl acetate	= Isobutyl acetate
Isobutyl alcohol	= Isobutyl alcohol
Isobutyl alpha-methacrylate	= Isobutyl methacrylate
Isobutyl isobutyrate	= Isobutyl isobutyrate
Isobutyl methacrylate	= Isobutyl methacrylate
Isobutyl methyl ketone	= Methyl isobutyl ketone
Isobutyl methylmethanol	= Methyl amyl alcohol
Isobutyl phthalate	= Diisobutyl phthalate
Isobutylaldehyde	= iso-butyraldehyde
Isobutylamine	= Isobutylamine
Isobutylcarbinol	= Isoamyl alcohol
Isobutylene	= Isobutylene
Isobutylmethylcarbinol	= Methyl amyl alcohol
Isobutylmethylcarbinol	= Methyl isobutyl carbinol
Isobutyraldehyde	= iso-butyraldehyde
1-Isobutyrate	= 1-Isobutyrate
Isobutyric acid	= Isobutyric acid
Isobutyric aldehyde	= iso-butyraldehyde
Isobutyronitrile	= Isobutyronitrile
Isoctyl trichlorophenoxyacetate	= 2,4,5-T esters
Isocumene	= n-Propylbenzene
Isocyanatomethane	= Methyl isocyanate
Isocyanic acid, methyl ester	= Methyl isocyanate
Isodecaldehyde, mixed isomers	= Isodecaldehyde
Isodecaldehyde	= Isodecaldehyde
Isodecyl acrylate	= Isodecyl acrylate
Isodecyl alcohol	= Isodecyl alcohol
Isodiprene	= Carene
Isodurene	= 1,2,3,5-Tetramethylbenzene
Isohexane	= Isohexane
Isonitropropane	= 2-Nitropropane
Isooctaldehyde	= Isooctaldehyde
Isooctyl alcohol	= Isooctyl alcohol
Isooctyl ester	= Isooctyl ester
Isooctylaldehyde	= Isooctaldehyde
Isopentane	= Isopentane
Isopentyl acetate	= Isoamylacetate

SYNONYM	COMPOUND NAMES
Isopentyl alcohol	= Isoamyl alcohol
Isopentyl nitrite	= iso-Amyl nitrite
Isophorone diamine diisocyanate	= Isophorone diisocyanate
Isophorone diamine	= Isophorone diamine
Isophorone diisocyanate	= Isophorone diisocyanate
Isophorone	= Isophorone
Isophthalic acid	= Isophthalic acid
Isoprene	= Isoprene
Isopropanol	= Isopropyl alcohol
Isopropanolamine	= Monoisopropanolamine
Isopropene cyanide	= Methacrylonitrile
Isopropenyl methyl ketone	= Methyl isopropenyl ketone
Isopropenylbenzene	= alpha-Methylstyrene
Isopropenyl nitrile	= Methacrylonitrile
2-Isopropoxy propane	= Isopropyl ether
2-Isopropoxyethanol	= Ethylene glycol isopropyl ether
Isopropyl 2, 4-dichlorophenoxy acetate	= 2,4-D esters
Isopropyl acetate	= Isopropyl acetate
Isopropyl alcohol	= Isopropyl alcohol
Isopropyl cellosolve	= Ethylene glycol isopropyl ether
Isopropyl cyanide	= Isobutyronitrile
Isopropyl cyclohexane	= Isopropyl cyclohexane
Isopropyl epoxypropyl ether	= Isopropyl glycidyl ether
Isopropyl ether	= Isopropyl ether
Isopropyl glycidyl ether	= Isopropyl glycidyl ether
Isopropyl glycol	= Ethylene glycol isopropyl ether
Isopropyl mercaptan	= Isopropyl mercaptan
Isopropyl methyl ketone	= 3-Methyl-2-butanone
Isopropyl percarbonate	= Isopropyl percarbonate
Isopropyl peroxydicarbonate	= Isopropyl percarbonate
o-Isopropyl phenol	= o-Isopropyl phenol
2-Isopropyl phenol	= o-Isopropyl phenol
Isopropylacetone	= Methyl isobutyl ketone
Isopropylamine	= Dodecylbenzenesulfonic acid, isopropylamine salt
dodecylbenzenesulfonate	
Isopropylamine	= Isopropylamine
Isopropylamino-s-triazine	= Atrazine
Isopropylbenzene hydroperoxide	= Cumene hydroperoxide
Isopropylbenzene	= Cumene
Isopropylcarbinol	= Isobutyl alcohol
Isopropylcumyl hydroperoxide	= Diisopropylbenzene hydroperoxide
Isopropylformic acid	= Isobutyric acid
4,4'-Isopropylidenediphenol	= Bisphenol A
Isopropylideneacetone	= Mesityl oxide
4,4'-Isopropylidenediphenol-	= Bisphenol A diglycidyl ether
p-Isopropyltoluene	= p-Cymene
Isopropyltoluol	= p-Cymene
Isothiocyantomethane	= Methyl isothiocyanate
Isothiocyanic acid, methyl ester	= Methyl isothiocyanate
Isothiourea	= Thiocarbamide
Isotridecanol	= Tridecanol
Isotridecyl alcohol	= Tridecanol
Isotron-22	= Chlorodifluoromethane
Isotron 11	= Trichlorofluoromethane

SYNONYM	COMPOUND NAMES
Isotron 12	= Dichlorodifluoromethane
Isovaleral	= Isovaleraldehyde
Isovaleraldehyde	= Isovaleraldehyde
Isovaleric aldehyde	= Isovaleraldehyde
Isovalerone	= Diisobutyl ketone
Javelle water	= Sodium hypochlorite solution
Jayflex DTDTP	= Ditridecyl phthalate
Jet fuel: JP-1	= Kerosene
Jet fuels: JP-1	= Jet fuels: JP-1
Jet fuels: JP-3	= Jet fuels: JP-3
Jet fuels: JP-4	= Jet fuels: JP-4
Jet fuels: JP-5	= Jet fuels: JP-5
JP-1	= Oils, fuel: no. 1
JP-1	= Oils, miscellaneous: range
K-flex DP	= Dipropylene glycol dibenzoate
Karmex	= Diuron
Kel F monomer	= Trifluorochloroethylene
Kelthane	= 4,4'-Dichloro-alpha-trichloromethyl benzhydrol
Kelthanethanol	= 4,4'-Dichloro-alpha-trichloromethyl benzhydrol
Kepone	= Kepone
Kerosene, heavy	= Jet fuels: JP-5
Kerosene, heavy	= Oils, miscellaneous: spray
Kerosene	= Jet fuels: JP-1
Kerosene	= Kerosene
Kerosene	= Oils, fuel: no. 1
Kerosene	= Oils, miscellaneous: range
Kerosine	= Jet fuels: JP-1
Kerosine	= Kerosene
Kerosine	= Oils, fuel: no. 1
Kerosine	= Oils, miscellaneous: range
2-Ketoheptane	= n-Amyl methyl ketone
2-Ketohexamethylenimine	= Caprolactam
Ketone, heptyl methyl	= Methyl heptyl ketone
Ketonox	= 2-Butanone peroxide
Kettle rendered lard	= Oils, edible: lard
Killax	= Tetraethyl pyrophosphate
Killmaster	= Dursban
King's gold	= Arsenic trisulfide
King's green	= Copper acetoarsenite
King's yellow	= Arsenic trisulfide
Korax	= 1-Chloro-1-nitropropane
Kurosalg	= 2-(2,4,5-Trichlorophenoxy) propanoic acid
Kwik-kil	= Strychnine
DL-Lactic acid, ammonium salt	= Ammonium lactate
Lactic acid, ethyl ester	= Ethyl lactate
Lactic acid	= Lactic acid
Lactonitrile solution (80% or less)	= Lactonitrile solution (80% or less)
LAH	= Lithium aluminum hydride
Lanarkite	= Lead sulfate
Lard	= Oils, edible: lard
Latex, liquid synthetic	= Latex, liquid synthetic

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Laughing gas	= Nitrous oxide
Lauric acid	= Lauric acid
Laurostearic acid	= Lauric acid
Lauroyl peroxide	= Lauroyl peroxide
Lauryl alcohol	= Dodecanol
Lauryl ammonium sulfate	= Ammonium lauryl sulfate
Lauryl magnesium sulfate	= Dodecyl sulfate, magnesium salt
Lauryl mercaptan	= Lauryl mercaptan
Lauryl methacrylate	= Dodecylmethacrylate
Lauryl sodium sulfate	= Dodecyl sulfate, sodium salt
Lauryl sulfate, diethanolamine salt solution	= Dodecyl sulfate, diethanolamine salt
Lauryl sulfate, magnesium salt	= Dodecyl sulfate, magnesium salt
Lauryl sulfate, sodium salt	= Dodecyl sulfate, sodium salt
Lauryl sulfate, triethanolamine salt	= Dodecyl sulfate, triethanolamine salt
Laurylbenzene	= Dodecylbenzene
Laurylbenzenesulfonic acid	= Dodecylbenzenesulfonic acid
Lead (II) chloride	= Lead chloride
Lead acetate trihydrate	= Lead acetate
Lead acetate	= Lead acetate
Lead alkyls	= Lead alkyls
Lead arsenate, acid	= Lead arsenate
Lead arsenate	= Lead arsenate
Lead bottoms	= Lead sulfate
Lead chloride	= Lead chloride
Lead dichloride	= Lead chloride
Lead difluoride	= Lead fluoride
Lead fluoborate	= Lead fluoroborate
Lead fluoride	= Lead fluoride
Lead fluoroborate solution	= Lead fluoroborate
Lead fluoroborate	= Lead fluoroborate
Lead hyposulfite	= Lead thiosulfate
Lead iodide	= Lead iodide
Lead IV acetate	= Lead tetraacetate
Lead monoxide	= Litharge
Lead nitrate	= Lead nitrate
Lead oxide yellow	= Litharge
Lead protoxide	= Litharge
Lead stearate	= Lead stearate
Lead sulfate	= Lead sulfate
Lead sulfide	= Lead sulfide
Lead sulfocyanate	= Lead thiocyanate
Lead tetraacetate	= Lead tetraacetate
Lead tetraethyl	= Tetraethyl lead
Lead tetramethyl	= Tetramethyl lead
Lead thiocyanate	= Lead thiocyanate
Lead thiosulfate	= Lead thiosulfate
Lead tungstate	= Lead tungstate
Lead wolframate	= Lead tungstate
Leaf lard	= Oils, edible: lard
Lemonene	= Diphenyl
Leucol	= Quinoline
Levepox hardener T3	= Pentaethylenehexamine
Lichenic acid	= Fumaric acid

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Light naphtha	= Naphtha: solvent
Light naphtha	= Naphtha: VM & P
Light oil	= Oils, miscellaneous: coal tar
Limed wood rosin	= Calcium resinate
Limonene	= Dipentene
Lindane	= gamma-Benzene hexachloride
Linear alcohols	= Linear alcohols
Linseed oil	= Oils, miscellaneous: linseed
Liquamon 28	= Urea, ammonium nitrate soln (w/aqua ammonia)
Liquefied natural gas	= Liquefied natural gas
Liquefied petroleum gas	= Liquefied petroleum gas
Liquefied phenol	= Carbolic oil (mixture)
Liquid ammonia	= Ammonia, anhydrous
Liquid asphalt	= Asphalt blending stocks: roofers flux
Liquid asphalt	= Oils, miscellaneous: road
Liquid bleach	= Sodium hypochlorite
Liquid camphor	= Camphor oil
Liquid gum camphor	= Camphor oil
Liquid hydrogen	= Hydrogen
Liquid impure camphor	= Camphor oil
Liquid nitrogen	= Nitrogen
Liquid oxygen	= Oxygen
Liquid petrolatum	= Oils, miscellaneous: mineral
Litharge	= Litharge
Lithium aluminum hydride	= Lithium aluminum hydride
Lithium bichromate dihydrate	= Lithium bichromate
Lithium bichromate	= Lithium bichromate
Lithium chromate	= Lithium chromate
Lithium dichromate	= Lithium bichromate
Lithium hydride	= Lithium hydride
Lithium	= Lithium
LNG	= Liquefied natural gas
Long-time burning oil	= Oils, miscellaneous: mineral seal
Lorol-22	= n-Decyl alcohol
Lorsban	= Dursban
LOX	= Oxygen
LPG	= Liquefied petroleum gas
Lubricating oil	= Oils, miscellaneous: motor
Lucidol	= Dibenzoyl peroxide
Lumbrical	= Piperazine
Lunar caustic	= Silver nitrate
Luperco JDB-50-T	= Cyclohexanone peroxide
Lye	= Caustic potash solution
Lye	= Caustic soda solution
Lye	= Potassium hydroxide
Lye	= Sodium hydroxide
M-B-C fumigant	= Methyl bromide
MAA	= Methyl isobutyl carbinol
MAAC	= Methyl amyl acetate
Macquer's salt	= Potassium arsenate
Magnesium dodecyl sulfate	= Dodecyl sulfate, magnesium salt
Magnesium lauryl sulfate	= Dodecyl sulfate, magnesium salt
Magnesium nitrate hexahydrate	= Magnesium nitrate

**SYNONYM****COMPOUND NAMES**

Magnesium nitrate	=	Magnesium nitrate
Magnesium perchlorate hexahydrate	=	Magnesium perchlorate
Magnesium perchlorate, anhydrous	=	Magnesium perchlorate
Magnesium perchlorate	=	Magnesium perchlorate
Magnesium	=	Magnesium
Malathion	=	Malathion
Malazide	=	Maleic hydrazide
Maleic acid hydrazide	=	Maleic hydrazide
Maleic acid	=	Maleic acid
Maleic anhydride	=	Maleic anhydride
Maleic hydrazide	=	Maleic hydrazide
Maleinic acid	=	Maleic acid
Malenic acid	=	Maleic acid
Malix	=	Endosulfan
Malonic dinitrile	=	Propanedinitrile
Malonic mononitrile	=	Cyanoacetic acid
Malononitrile	=	Propanedinitrile
MAOH	=	Methyl amyl alcohol
MAOH	=	Methyl isobutyl carbinol
MAPP gas	=	Methyl acetylene, propadiene mixture
Marlate 50	=	Methoxychlor
Marmer	=	Diuron
Marsh gas	=	Methane
Marshite	=	Copper iodide
Massicot	=	Litharge
MCB	=	Chlorobenzene
MCP	=	Calcium phosphate
MDEA	=	Methyl diethanolamine
MDI	=	Diphenylmethane diisocyanate
Meadow green	=	Copper acetoarsenite
Mediben	=	Dicamba
MEK	=	Methyl ethyl ketone
MEKP	=	2-Butanone peroxide
Mendrin	=	Endrin
Menite	=	Phosdrin
p-Mentha-1,8-diene	=	Dipentene
MEP	=	Methylethylpyridine
Mercaptobenzene	=	Benzenethiol
Mercaptodimethur	=	Mercaptodimethur
Mercaptoethane	=	Ethyl mercaptan
Mercaptomethane	=	Methyl mercaptan
Mercurialin	=	Methylamine
Mercurialin	=	Methylamine solution
Mercuric acetate	=	Mercuric acetate
Mercuric ammonium chloride	=	Mercuric ammonium chloride
Mercuric chloride, ammoniated	=	Mercuric ammonium chloride
Mercuric chloride	=	Mercuric chloride
Mercuric cyanide	=	Mercuric cyanide
Mercuric iodide, red	=	Mercuric iodide
Mercuric iodide	=	Mercuric iodide
Mercuric nitrate	=	Mercuric nitrate
Mercuric oxide, red	=	Mercuric oxide
Mercuric oxide, yellow	=	Mercuric oxide
Mercuric oxide	=	Mercuric oxide

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Mercuric sulfate	= Mercuric sulfate
Mercuric sulfide, black	= Mercuric sulfide
Mercuric sulfide, red	= Mercuric sulfide
Mercuric sulfide	= Mercuric sulfide
Mercuric sulfocyanate	= Mercuric thiocyanate
Mercuric sulfocyanide	= Mercuric thiocyanate
Mercuric thiocyanate	= Mercuric thiocyanate
Mercurous chloride	= Mercurous chloride
Mercurous nitrate monohydrate	= Mercurous nitrate
Mercurous nitrate	= Mercurous nitrate
Mercury (II) chloride	= Mercuric chloride
Mercury (II) cyanide	= Mercuric cyanide
Mercury (II) nitrate	= Mercuric nitrate
Mercury (II) sulfate (1:1)	= Mercuric sulfate
Mercury amide chloride	= Mercuric ammonium chloride
Mercury ammonium chloride	= Mercuric ammonium chloride
Mercury bichloride	= Mercuric chloride
Mercury biniodide	= Mercuric iodide
Mercury bisulfate	= Mercuric sulfate
Mercury cyanide	= Mercuric cyanide
Mercury monochloride	= Mercurous chloride
Mercury nitrate monohydrate	= Mercuric nitrate
Mercury oxide	= Mercuric oxide
Mercury perchloride	= Mercuric chloride
Mercury pernitrate	= Mercuric nitrate
Mercury persulfate	= Mercuric sulfate
Mercury protochloride	= Mercurous chloride
Mercury protonitrate	= Mercurous nitrate
Mercury rhodanide	= Mercuric thiocyanate
Mercury subchloride	= Mercurous chloride
Mercury	= Mercury
Merex	= Kepone
Mesityl oxide	= Mesityl oxide
Mesurool	= Mercaptodimethur
Metacetone	= Diethyl ketone
Metallic resinate	= Calcium resinate
Metelilachlor	= Metolachlor
Metelilachlor	= Metolachlor
Methacetone	= Diethyl ketone
Methacrylate monomer	= Methyl methacrylate
Methacrylic acid, 2, 3-epoxypropyl ester	= Glycidyl methacrylate
Methacrylic acid, butyl ester	= n-Butyl methacrylate
Methacrylic acid, butyl, decyl, cetyl and eicosyl ester mix	= Butyl, decyl, cetyl-eicosyl methacrylate
Methacrylic acid, dodecyl and pentadecyl ester mix	= Dodecyl/pentadecyl methacrylate
Methacrylic acid, dodecyl ester	= Dodecylmethacrylate
Methacrylic acid, ethyl ester	= Ethyl methacrylate
Methacrylic acid, isobutyl ester	= Isobutyl methacrylate
Methacrylic acid, lauryl and pentadecyl ester mix	= Dodecyl/pentadecyl methacrylate
Methacrylic acid, methyl ester	= Methyl methacrylate
Methacrylic acid	= Methacrylic acid
Methacrylonitrile	= Methacrylonitrile

SYNONYM	COMPOUND NAMES
beta-Methallyl chloride	= Methallyl chloride
Methallyl chloride	= Methallyl chloride
Methanal solution	= Formaldehyde solution
Methanamide	= Formamide
Methane, isocyanato-	= Methyl isocyanate
Methane, tribromo-	= Bromoform
Methane	= Methane
Methanearsonic acid, sodium salt	= Methanearsonic acid, sodium salt
Methaneethiol	= Methyl mercaptan
Methanethiomethane	= Dimethyl sulfide
Methanoic acid, amide	= Formamide
Methanoic acid	= Formic acid
4,7-Methanoindene, 3a,4,7,7a-tetrahydrodimethyl	= Methylcyclopentadiene dimer
Methanol	= Methyl alcohol
Metheneamine	= Hexamethylenetetramine
Methenyl tribromide	= Bromoform
Methiocarb	= Mercaptodimethur
Methionine hydroxy analog	= 2-Hydroxy-4-(methylthio)-butanoic acid
Methmercapturon	= Mercaptodimethur
2-Methoxy-2-methyl propane	= Methyl tert-butyl ether
1-Methoxy-2-propanol acetate	= Propylene glycol methyl ether acetate
1-Methoxy-2-propanol	= Propylene glycol methyl ether
Methoxy DDT	= Methoxychlor
o-Methoxybenzoic acid	= Methyl salicylate
3-Methoxybutyl acetate	= 3-Methoxybutyl acetate
Methoxychlor	= Methoxychlor
2-Methoxyethanol	= Ethylene glycol monomethyl ether
2-(2-Methoxyethoxy)-ethanol	= Diethylene glycol monomethyl ether
2-Methoxyethyl acetate	= Ethylene glycol methyl ether acetate
Bis-(2-Methoxyethyl)-ether	= Diethylene glycol dimethyl ether
Methoxyethylene	= Vinyl methyl ether
2,2-bis-(p-Methoxyphenyl)-1,1,1-trichloroethane	= Methoxychlor
3-Methyl-1-butanol	= Isoamyl alcohol
3-Methyl-1-buten-3-ol	= Methyl butenol
2-Methyl-1-butene-3-one	= Methyl isopropenyl ketone
6-Methyl-1-heptanal	= Isooctaldehyde
6-Methyl-1-heptanol	= Isooctyl alcohol
2-Methyl-1-pentene	= 2-Methyl-1-pentene
4-Methyl-1-pentene	= 4-Methyl-1-pentene
1-Methyl-1-phenylethylene	= alpha-Methylstyrene
2-Methyl-1-propanol	= Isobutyl alcohol
2-Methyl-1-propyl acetate	= Isobutyl acetate
1-Methyl-1 propylethylene	= 2-Methyl-1-pentene
2-Methyl-1, 3-butadiene	= Isoprene
Methyl-1,3-butylene glycol acetate	= 3-Methoxybutyl acetate
1-Methyl-2-(3-pyridyl)pyrrolidine	= Nicotine
3-Methyl-2-butanone	= 3-Methyl-2-butanone
2-Methyl-2-butyrol	= 2-Methyl-2-hydroxy-3-butyne
1-Methyl-2-chlorobenzene	= o-Chlorotoluene
1-Methyl-2-fluorobenzene	= 2-Fluorotoluene
2-Methyl-2-hydroxy-3-butyne	= 2-Methyl-2-hydroxy-3-butyne
1-Methyl-2-hydroxyethylamine	= 2-Propanolamine



**SYNONYM****COMPOUND NAMES**

2-Methyl-2-methoxy propane	= Methyl tert-butyl ether
4-Methyl-2-pentanol acetate	= Methyl amyl acetate
4-Methyl-2-pentanol	= Methyl amyl alcohol
4-Methyl-2-pentanol	= Methyl isobutyl carbinol
4-Methyl-2-pentanone	= Methyl isobutyl ketone
4-Methyl-2-pentyl acetate	= Methyl amyl acetate
2-Methyl-2-propanol	= tert-Butyl alcohol
2-Methyl-2-propen-1-ol	= Methyl allyl alcohol
1-Methyl-2-pyrrolidinone	= 1-Methylpyrrolidone
3-(1-Methyl-2-pyrrolidyl)pyridine	= Nicotine
1-Methyl-2, 4-dinitrobenzene	= 2,4-Dinitrotoluene
2-Methyl-2,4-pentanediol	= Hexylene glycol
2-Methyl-3-buten-2-ol	= Methyl butenol
2-Methyl-3-butyne-2-ol	= Methyl butynol
1-Methyl-3-fluorobenzene	= 3-Fluorotoluene
Methyl-3-oxo-butyrate	= Methyl acetoacetate
4-Methyl-3-pentene-2-one	= Mesityl oxide
1-Methyl-4-isopropylbenzene	= p-Cymene
4-Methyl-4-pentene	= 2-Methyl-1-pentene
1-Methyl-4-tert-butylbenzene	= Butyl toluene
2-Methyl-6-ethyl aniline	= 2-Methyl-6-ethyl aniline
2-Methyl-6-ethylbenzeneamine	= 2-Methyl-6-ethyl aniline
2-Methyl-6-methylene-2,7-octadiene	= Myrcene
N-Methyl-alpha-pyrrolidone	= 1-Methylpyrrolidone
3-Methyl-buten-(1)-ol(3)	= Methyl butenol
Methyl-n-butanoate	= Methyl butyrate
Methyl-n-butyrate	= Methyl butyrate
p-Methyl-tert-butylbenzene	= Butyl toluene
Methyl 2-methyl-2-propenoate	= Methyl methacrylate
Methyl 2-propenoate	= Methyl acrylate
Methyl a-methylacrylate	= Methyl methacrylate
Methyl acetaldehyde	= Propionaldehyde
Methyl acetate	= Methyl acetate
Methyl acetoacetate	= Methyl acetoacetate
Methyl acetylacetonate	= Methyl acetoacetate
Methyl acetylene, propadiene mixture	= Methyl acetylene, propadiene mixture
Methyl acrylate	= Methyl acrylate
Methyl adipate	= Dimethyl adipate
Methyl alcohol	= Methyl alcohol
Methyl allyl alcohol	= Methyl allyl alcohol
Methyl amyl acetate	= Methyl amyl acetate
Methyl amyl alcohol	= Methyl amyl alcohol
Methyl amyl ketone	= n-Amyl methyl ketone
alpha-Methyl benzene methanol	= a-Methylbenzyl alcohol
Methyl benzenecarboxylate	= Methyl benzoate
Methyl benzoate	= Methyl benzoate
Methyl bromide	= Methyl bromide
3-Methyl butan-2-one	= 3-Methyl-2-butanone
Methyl butenol	= Methyl butenol
Methyl butynol	= 2-Methyl-2-hydroxy-3-butyne
Methyl butynol	= Methyl butynol
Methyl butyrate	= Methyl butyrate
Methyl carbitol acetate	= Diethylene glycol methyl ether acetate
Methyl carbitol	= Diethylene glycol monomethyl ether

**SYNONYM****COMPOUND NAMES**

Methyl carbonimide	= Methyl isocyanate
Methyl cellosolve acetate	= Ethylene glycol methyl ether acetate
Methyl cellosolve	= Ethylene glycol monomethyl ether
Methyl chloride	= Methyl chloride
Methyl chloroacetate	= Methyl chloroacetate
Methyl chlorocarbonate	= Methyl chloroformate
Methyl chloroformate	= Methyl chloroformate
Methyl chloromethyl ether, anhydrous	= Chloromethyl methyl ether
Methyl cyanide	= Acetonitrile
Methyl cyclopentane	= Methyl cyclopentane
Methyl dichloroacetate	= Methyl dichloroacetate
Methyl dichloroethanoate	= Methyl dichloroacetate
Methyl diethanolamine	= Methyl diethanolamine
N-Methyl ethanolamine	= Monomethyl ethanolamine
Methyl ether	= Dimethyl ether
Methyl ethyl bromo-methane	= 2-Bromobutane
Methyl ethyl ketone	= Methyl ethyl ketone
Methyl formal	= Methyl formal
Methyl formate	= Methyl formate
Methyl heptyl ketone	= Methyl heptyl ketone
Methyl iodide	= Methyl iodide
Methyl isobutenyl ketone	= Mesityl oxide
Methyl isobutyl carbinol	= Methyl isobutyl carbinol
Methyl isobutyl ketone	= Methyl isobutyl ketone
Methyl isocyanate	= Methyl isocyanate
Methyl isopropenyl ketone	= Methyl isopropenyl ketone
Methyl isopropyl ketone	= 3-Methyl-2-butanone
Methyl isothiocyanate	= Methyl isothiocyanate
Methyl mercaptan	= Methyl mercaptan
Methyl methacrylate	= Methyl methacrylate
Methyl monochloroacetate	= Methyl chloroacetate
Methyl mustard oil	= Methyl isothiocyanate
Methyl n-amyl ketone	= Methylamyl ketone
Methyl n-butyl ketone	= Methyl n-butyl ketone
Methyl n-propyl ketone	= 2-Pentanone
2-Methyl nitrobenzene	= o-Nitrotoluene
Methyl nitrobenzene	= p-Nitrotoluene
Methyl parathion	= Methyl parathion
2-Methyl pentene-1	= 2-Methyl-1-pentene
Methyl pentyl ketone	= n-Amyl methyl ketone
Methyl phenyl ketone	= Acetophenone
Methyl phosphite	= Trimethyl phosphite
Methyl phosphonothioic dichloride	= Methyl phosphonothioic dichloride
Methyl phthalate	= Dimethyl phthalate
2-Methyl propenic acid	= Methacrylic acid
Methyl propyl ketone	= Methyl propyl ketone
Methyl salicylate	= Methyl salicylate
Methyl sulfate	= Dimethyl sulfate
Methyl sulfhydrate	= Methyl mercaptan
Methyl sulfide	= Dimethyl sulfide
Methyl sulfoxide	= Dimethyl sulfoxide
Methyl tert-butyl ether	= Methyl tert-butyl ether
Methyl thiram	= Thiram
Methyl tribromide	= Bromoform

SYNONYM	COMPOUND NAMES
Methyl tuads	= Thiram
Methyl vinyl ether	= Vinyl methyl ether
Methyl vinyl ketone	= Methyl vinyl ketone
Methylacetic acid	= Propionic acid
Methylacetic anhydride	= Propionic anhydride
Methylacetylene-allene mixture	= Methyl acetylene, propadiene mixture
beta-Methylacrolein	= Crotonaldehyde
alpha-Methylacrylic acid	= Methacrylic acid
2-Methylacrylic acid	= Methacrylic acid
2-Methylacetonitrile	= Acetone cyanohydrin
Methylal	= Methyl formal
beta-Methylallyl chloride	= Methallyl chloride
Methylamine solution	= Methylamine solution
Methylamine	= Methylamine
2-(Methylamino)ethanol	= Monomethyl ethanolamine
N-Methylaminobenzene	= N-Methylaniline
Methylamyl alcohol	= Methyl isobutyl carbinol
Methylamyl ketone	= Methylamyl ketone
Methylaniline (mono)	= N-Methylaniline
m-Methylaniline	= m-Toluidine
3-Methylaniline	= m-Toluidine
N-Methylaniline	= N-Methylaniline
2-Methylaniline	= o-Toluidine
o-Methylaniline	= o-Toluidine
p-Methylaniline	= p-Toluidine
4-Methylaniline	= p-Toluidine
2-Methylaziridine	= Propyleneimine
Methylbenzene	= Toluene
3-Methylbenzeneamine	= m-Toluidine
4-Methylbenzeneamine	= p-Toluidine
Methylbenzenesulfonic acid	= p-Toluenesulfonic acid
Methylbenzol	= Toluene
a-Methylbenzyl alcohol	= a-Methylbenzyl alcohol
alpha-Methylbivinyll	= 1,3-Pentadiene
beta-Methylbivinyll	= Isoprene
1-Methylbutadiene	= 1,3-Pentadiene
3-Methylbutanal	= Isovaleraldehyde
2-Methylbutane	= Isopentane
3-Methylbutyl nitrite	= iso-Amyl nitrite
3-Methylbutyraldehyde	= Isovaleraldehyde
Methylcarbamate	= Carbofuran
Methylchloroform	= Trichloroethane
Methylcyclohexane	= Methylcyclohexane
2-Methylcyclohexanol	= 2-Methylcyclohexanol
o-Methylcyclohexanone	= o-Methylcyclohexanone
2-Methylcyclohexanone	= o-Methylcyclohexanone
Methylcyclopentadiene dimer	= Methylcyclopentadiene dimer
Methylcyclopentadienylmanganese tricarboxyl	= Methylcyclopentadienylmanganese tricarboxyl
Methyldichlorosilane	= Methyldichlorosilane
3-Methylene-7-methyl 1,6-octadiene	= Myrcene
Methylene bromide	= Dibromomethane
Methylene chloride	= Dichloromethane
Methylene cyanide	= Propanedinitrile

SYNONYM	COMPOUND NAMES
Methylene dibromide	= Dibromomethane
Methylene dichloride	= Dichloromethane
Methylene dimethyl ether	= Methyl formal
Methylene tribromide	= Bromoform
2,2-Methylene, bis[3,4,6-trichlorophenol]	= Hexachlorophene
bis-(1-Methylethyl)-benzene	= Diisopropylbenzene (all isomers)
bis-(1-Methylethyl) ester	= Isopropyl percarbonate
o-Methylethylbenzene	= 2-Ethyl toluene
Methylethylcarbinol	= sec-Butyl alcohol
1-Methylethylcyclohexane	= Isopropyl cyclohexane
Methylethylene glycol	= Propylene glycol
Methylethylene	= Propylene
2-Methylethyleneimine	= Propyleneimine
Methylethylketone peroxide	= 2-Butanone peroxide
Methylethylpyridine	= Methylethylpyridine
Bis-(6-Methylheptyl) phthalate	= Diisooctyl phthalate
Methylhydrazine	= Methylhydrazine
p-Methylhydroxybenzene	= p-Cresol
2,2'-Methyliminodiethanol	= Methyl diethanolamine
Methylisobutylcarbinol	= Methyl amyl alcohol
Methylisobutylcarbonyl acetate	= Methyl amyl acetate
Methylmethane	= Ethane
alpha-Methylnaphthalene	= 1-Methylnaphthalene
1-Methylnaphthalene	= 1-Methylnaphthalene
3-Methylnitrobenzene	= m-Nitrotoluene
4-Methylnitrobenzene	= p-Nitrotoluene
Methyloxirane	= Propylene oxide
2-Methylpentane	= Isohexane
Methylphenols	= Cresols
m-Methylphenol	= m-Cresol
2-Methylphenol	= o-Cresol
p-Methylphenol	= p-Cresol
Methylphenyl methanol	= a-Methylbenzyl alcohol
Methylphenylamine	= N-Methylaniline
2-Methylpropanal	= iso-butyraldehyde
2-Methylpropane	= Isobutane
2-Methylpropanenitrile	= Isobutyronitrile
2-Methylpropanoic acid	= Isobutyric acid
2-Methylpropene	= Isobutylene
alpha-Methylpropionic acid	= Isobutyric acid
2-Methylpropionitrile	= Isobutyronitrile
beta-Methylpropyl ethanoate	= Isobutyl acetate
N,N-bis(2-Methylpropyl)amine	= Diisobutylamine
Methylpropylbenzene	= p-Cymene
2-Methylpyridine	= 2-Methylpyridine
alpha-Methylpyridine	= 2-Methylpyridine
3-Methylpyridine	= 3-Methylpyridine
4-Methylpyridine	= 4-Methylpyridine
N-Methylpyrrolidinone	= 1-Methylpyrrolidone
N-Methylpyrrolidone	= 1-Methylpyrrolidone
1-Methylpyrrolidone	= 1-Methylpyrrolidone
alpha-Methylstyrene	= alpha-Methylstyrene
p-Methylstyrene	= Vinyl toluene
4-(Methylsulfonyl)-2,6-dinitro	= Nitralin

SYNONYM	COMPOUND NAMES
Methyltrichlorosilane	= Methyltrichlorosilane
Methylzinc	= Dimethylzinc
Metolachlor	= Metolachlor
Metron	= Methyl parathion
Mevinphos	= Phosdrin
Mexacarbate	= Zectran
MFB	= Fluorobenzene
MHA-FA	= 2-Hydroxy-4-(methylthio)-butanoic acid
MHA acid	= 2-Hydroxy-4-(methylthio)-butanoic acid
MIBC	= Methyl isobutyl carbinol
MIBK	= Methyl isobutyl ketone
MIC	= Methyl amyl alcohol
MIC	= Methyl isobutyl carbinol
MIC	= Methyl isocyanate
Middle oil	= Carbolic oil (mixture)
MIK	= Methyl isobutyl ketone
Mild mercury chloride	= Mercurous chloride
Milk acid	= Lactic acid
Milk white	= Lead sulfate
Milocep	= Metolachlor
Mineral carbon	= Charcoal
Mineral colza oil	= Oils, miscellaneous: mineral seal
Mineral spirits	= Mineral spirits
Mipax	= Dimethyl phthalate
Mirex	= Mirex
Mitis green	= Copper acetoarsenite
Mixed fertilizers	= Ammonium nitrate-sulfate mixture
Mixed primary amyl nitrates	= n-Amyl nitrate
Mixture of benzene, toluene, xylenes	= Naphtha: coal tar
MMH	= Methylhydrazine
Mohr's salt	= Ferrous ammonium sulfate
Molybdenum trioxide	= Molybdc trioxide
Molybdic acid (85%)	= Ammonium molybdate
Molybdic anhydride	= Molybdc trioxide
Molybdic trioxide	= Molybdc trioxide
Mondur TDS	= Toluene 2,4-diisocyanate
Mono-n-propylamine	= n-Propylamine
Mono PE	= Pentaerythritol
Monoammonium orthophosphate	= Ammonium phosphate
Monobromoacetone	= Bromoacetone
Monobromobenzene	= Bromobenzene
Monobromomethane	= Methyl bromide
Monocalcium phosphate monohydrate	= Calcium phosphate
Monochlorethane	= Ethyl chloride
Monochlorethanoic acid, ethyl ester	= Ethyl chloroacetate
Monochloroacetaldehyde	= Chloroacetaldehyde
Monochloroacetic acid, methyl ester	= Methyl chloroacetate
Monochloroacetic acid	= Chloroacetic acid
Monochloroacetic acid	= Chloroacetic acid (80% or less)
Monochlorobenzene	= Chlorobenzene
Monochlorodifluoromethane	= Chlorodifluoromethane
Monochloromethyl ether	= Chloromethyl methyl ether
beta-Monochloropropionic acid	= 3-Chloropropionic acid
Monochlorotetrafluoroethane	= Monochlorotetrafluoroethane

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Monochlorotrifluoromethane	= Monochlorotrifluoromethane
Monoethanolamine	= Monoethanolamine
Monoethylamine	= Ethylamine
Monoethylene glycol	= Ethylene glycol
Monofluorobenzene	= Fluorobenzene
Monofluoroethylene	= Vinyl fluoride
Monoglyme	= Ethylene glycol dimethyl ether
Monoiodomethane	= Methyl iodide
Monoisobutylamine	= Isobutylamine
Monoisopropanolamine	= Monoisopropanolamine
Monoisopropylamine	= Isopropylamine
Monomethyl ethanolamine	= Monomethyl ethanolamine
Monomethylamine	= Methylamine
Monomethylamine	= Methylamine solution
Monomethylhydrazine	= Methylhydrazine
Mononitrogen monoxide	= Nitric oxide
Monosodium methane arsonate	= Methanearsonic acid, sodium salt
Monosodium methyl arsonate	= Methanearsonic acid, sodium salt
Monoxide	= Carbon monoxide
Morpholine	= Morpholine
Mortopal	= Tetraethyl pyrophosphate
Moss green	= Copper acetoarsenite
Motor oil	= Oils, miscellaneous: lubricating
Motor spirit	= Gasolines: automotive (<4.23g lead/gal)
Mouse-tox	= Strychnine
MPT	= Methyl parathion
MPTD	= Methyl phosphonothioic dichloride
MSMA	= Methanearsonic acid, sodium salt
Multrathane M	= Diphenylmethane diisocyanate
Muriatic acid	= Hydrochloric acid
Myrcene	= Myrcene
Myristic alcohol	= Tetradecanol
Myristyl alcohol	= Tetradecanol
NA 1760 (DOT)	= Hexanoic acid
Nabam	= Nabam
Nacap	= Sodium 2-mercaptobenzothiazol solution
Naccanol NR or SW	= Dodecyl benzene sulfonic acid, sodium salt
Nacconate 100	= Toluene 2,4-diisocyanate
Nacconate 300	= Diphenylmethane diisocyanate
Nacconol 988 A	= Dodecylbenzenesulfonic acid
Nadone	= Cyclohexanone
Naled	= Naled
Naphtha: coal tar	= Naphtha: coal tar
Naphtha: solvent	= Naphtha: solvent
Naphtha: stoddard solvent	= Naphtha: stoddard solvent
Naphtha: VM & P	= Naphtha: VM & P
Naphtha	= Mineral spirits
Naphthalene	= Naphthalene
Naphthalin	= Naphthalene
Naphthane	= Decahydronaphthalene
Naphthenic acids	= Naphthenic acids
1-Naphthyl n-methylcarbamate	= Carbaryl
alpha-Naphthylamine	= 1-Naphthylamine

SYNONYM	COMPOUND NAMES
1-Naphthylamine	= 1-Naphthylamine
Naphtol as-kg	= p-Toluidine
Napthalane	= Decahydronaphthalene
Natural gas	= Methane
Natural gasoline	= Gasolines: casinghead
Naugatuck DO 14	= Propargite
NCI-C 54773	= Dimethyl hydrogen phosphite
NCI-C06155	= Butyl chloride
NCI-C06508	= Benzyl acetate
NCI - C55947	= Tetranitromethane
NCL-C56188	= 2,6-Dimethylaniline
Necatorina	= Carbon tetrachloride
Neo-fat 10	= Decanoic acid
Neo-fat 12-43	= Lauric acid
Neo-fat 8	= Octanoic acid
Neodecanoic acid, vinyl ester	= Vinyl neodecanoate
Neodecanoic acid	= Neodecanoic acid
Neofat 12	= Lauric acid
Neohexane	= Neohexane
Neol	= 2,2-Dimethylpropane-1,3-diol
Neopentanoic acid	= Trimethylacetic acid
Neopentyl glycol	= 2,2-Dimethylpropane-1,3-diol
Neopentylene glycol	= 2,2-Dimethylpropane-1,3-diol
Nerkol	= Dichlorvos
Neutral ammonium chromate	= Ammonium chromate
Neutral ammonium fluoride	= Ammonium fluoride
Neutral anhydrous calcium hypochlorite	= Calcium hypochlorite
Neutral lead acetate	= Lead acetate
Neutral lead stearate	= Lead stearate
Neutral nicotine sulfate	= Nicotine sulfate
Neutral potassium chromate	= Potassium chromate
Neutral sodium chromate anhydrous	= Sodium chromate
Neutral verdigris	= Copper acetate
NIA 12 40	= Ethion
NIA 5996	= Dichlobenil
Niagara 10242	= Carbofuran
Nialate	= Ethion
Nickel (II) fluoborate	= Nickel fluoroborate
Nickel acetate tetrahydrate	= Nickel acetate
Nickel acetate	= Nickel acetate
Nickel ammonium sulfate hexahydrate	= Nickel ammonium sulfate
Nickel ammonium sulfate	= Nickel ammonium sulfate
Nickel bromide trihydrate	= Nickel bromide
Nickel bromide	= Nickel bromide
Nickel carbonyl	= Nickel carbonyl
Nickel chloride hexahydrate	= Nickel chloride
Nickel chloride	= Nickel chloride
Nickel cyanide	= Nickel cyanide
Nickel dihydroxide	= Nickel hydroxide
Nickel fluoroborate solution	= Nickel fluoroborate
Nickel fluoroborate	= Nickel fluoroborate
Nickel formate dihydrate	= Nickel formate
Nickel formate	= Nickel formate
Nickel hydroxide	= Nickel hydroxide

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Nickel nitrate hexahydrate	= Nickel nitrate
Nickel nitrate	= Nickel nitrate
Nickel sulfate	= Nickel sulfate
Nickel tetracarbonyl	= Nickel carbonyl
Nickelous acetate	= Nickel acetate
Nickelous hydroxide	= Nickel hydroxide
Nickelous sulfate	= Nickel sulfate
Nicotine sulfate	= Nicotine sulfate
Nicotine	= Nicotine
Niobe oil	= Methyl benzoate
Nitos	= Tetraethyl pyrophosphate
Nitralin	= Nitralin
Nitram	= Ammonium nitrate
Nitran	= Methyl parathion
o-Nitraniline	= 2-Nitroaniline
Nitratine	= Sodium nitrate
Nitrex nitrogen solutions (non-pressure)	= Ammonium nitrate-urea solution
Nitric acid, aluminum salt	= Aluminum nitrate
Nitric acid, iron(III) salt	= Ferric nitrate
Nitric acid, lead II salt	= Lead nitrate
Nitric acid, thallium (I) salt	= Thallium nitrate
Nitric acid, thallos salt	= Thallium nitrate
Nitric acid	= Nitric acid
Nitric oxide	= Nitric oxide
Nitrilotriacetic acid and salts	= Nitrilotriacetic acid and salts
2-Nitroaniline	= 2-Nitroaniline
o-Nitroaniline	= 2-Nitroaniline
p-Nitroaniline	= 4-Nitroaniline
4-Nitroaniline	= 4-Nitroaniline
Nitrobenzene	= Nitrobenzene
Nitrobenzol	= Nitrobenzene
Nitrocarbol	= Nitromethane
Nitrocellulose gum	= Collodion
Nitrocellulose solution	= Collodion
o-Nitrochlorobenzene	= o-Chloronitrobenzene
Nitrochloroform	= Chloropicrin
Nitroethane	= Nitroethane
Nitrogen dioxide	= Nitrogen tetroxide
Nitrogen monoxide	= Nitric oxide
Nitrogen peroxide	= Nitrogen tetroxide
Nitrogen tetroxide	= Nitrogen tetroxide
Nitrogen	= Nitrogen
Nitromagnesite	= Magnesium nitrate
Nitromethane	= Nitromethane
o-Nitrophenol	= 2-Nitrophenol
2-Nitrophenol	= 2-Nitrophenol
3-Nitrophenol	= 3-Nitrophenol
m-Nitrophenol	= 3-Nitrophenol
p-Nitrophenol	= 4-Nitrophenol
4-Nitrophenol	= 4-Nitrophenol
1-Nitropropane	= 1-Nitropropane
2-Nitropropane	= 2-Nitropropane
sec-Nitropropane	= 2-Nitropropane
Nitrosyl chloride	= Nitrosyl chloride



SYNONYM	COMPOUND NAMES
3-Nitrotoluene	= m-Nitrotoluene
m-Nitrotoluene	= m-Nitrotoluene
o-Nitrotoluene	= o-Nitrotoluene
2-Nitrotoluene	= o-Nitrotoluene
p-Nitrotoluene	= p-Nitrotoluene
3-Nitrotoluol	= m-Nitrotoluene
4-Nitrotoluol	= p-Nitrotoluene
Nitrotrichloromethane	= Chloropicrin
Nitrous ether	= Ethyl nitrite
Nitrous oxide	= Nitrous oxide
No. 4	= Oils, fuel: 4
No. 5	= Oils, fuel: 5
No. 6	= Oils, fuel: no. 6
Nonan-2-one	= Methyl heptyl ketone
Nonane	= Nonane
n-Nonane	= Nonane
Nonanol acetate	= Nonyl acetate
Nonanol	= Nonanol
1-Nonanol	= Nonanol
5-Nonanone	= Di-n-butyl ketone
2-Nonanone	= Methyl heptyl ketone
Nonene (non-linear)	= Nonene
Nonene (nonlinear)	= Propylene trimer
1-Nonene	= 1-Nonene
Nonene	= Nonene
Nonene	= Propylene trimer
Nonyl acetate	= Nonyl acetate
n-Nonyl acetate	= Nonyl acetate
Nonyl alcohol/pelargonic alcohol	= Nonanol
Nonyl alcohol	= Nonanol
Nonylcarbinol	= n-Decyl alcohol
1-Nonylene	= 1-Nonene
n-Nonylethylene	= 1-Undecene
Nonylphenol	= Nonylphenol
S-Noranone	= Di-n-butyl ketone
Normal lead acetate	= Lead acetate
Normenthane	= Isopropyl cyclohexane
Norvalamine	= n-Butylamine
2-NP	= 2-Nitropropane
NTA	= Nitrotriacetic acid and salts
NTM	= Dimethyl phthalate
Nuoplaz	= Ditridecyl phthalate
Nux-vomica	= Strychnine
O,O-Diethyl O-(p-nitrophenyl) phosphorothioate	= Parathion
O,O[diethyl-o(and 5)-]2- (ethylthio)ethyl[phosphorothioate s	= Demeton
Octa-klor	= Chlordane
1,2,4,5,6,7,8,8-Octachloro-2,3,3a,4,7,7a- hexahydro-4,7-methanoindene	= Chlordane
Octachlorocamphene	= Toxaphene
Octadecanoic acid	= Stearic acid
cis-9-Octadecenoic acid	= Oleic acid

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
n-Octadecylic acid	= Stearic acid
1,6-Octadiene, 7-methyl-3-methylene	= Myrcene
1-Octanal	= Octyl aldehydes
Octane	= Octane
n-Octane	= Octane
Octanoic acid	= Octanoic acid
Octanol	= Octanol
1-Octanol	= Octanol
3-Octanone	= Ethyl amyl ketone
1-Octene	= 1-Octene
n-Octoic acid	= Octanoic acid
Octoil	= Dioctyl phthalate
Octycarbinol	= Nonanol
n-Octyl-n-decyl phthalate	= Octyl decyl phthalate
Octyl acetate	= 2-Ethylhexyl acetate
Octyl alcohol	= Octanol
Octyl aldehyde	= Ethylhexaldehyde
n-Octyl aldehyde	= Octyl aldehydes
Octyl aldehydes	= Octyl aldehydes
Octyl decyl phthalate	= Octyl decyl phthalate
Octyl epoxy tallate	= Octyl epoxy tallate
alpha-Octylene	= 1-Octene
Oil of bitter almond	= Benzaldehyde
Oil of cashew nutshell	= Oil, misc: cashew nut shell
Oil of mirbane	= Nitrobenzene
Oil of Niobe	= Methyl benzoate
Oil of vitriol	= Sulfuric acid
Oil, misc: cashew nut shell	= Oil, misc: cashew nut shell
Oil, misc: pine	= Oil, misc: pine
Oils, edible: castor	= Oils, edible: castor
Oils, edible: coconut	= Oils, edible: coconut
Oils, edible: cottonseed	= Oils, edible: cottonseed
Oils, edible: fish	= Oils, edible: fish
Oils, edible: lard	= Oils, edible: lard
Oils, edible: olive	= Oils, edible: olive
Oils, edible: palm	= Oils, edible: palm
Oils, edible: peanut	= Oils, edible: peanut
Oils, edible: safflower	= Oils, edible: safflower
Oils, edible: soya bean	= Oils, edible: soya bean
Oils, edible: tucum	= Oils, edible: tucum
Oils, edible: vegetable	= Oils, edible: vegetable
Oils, fuel: 1-D	= Oils, fuel: 1-D
Oils, fuel: 2-D	= Oils, fuel: 2-D
Oils, fuel: 2	= Oils, fuel: 2
Oils, fuel: 4	= Oils, fuel: 4
Oils, fuel: 5	= Oils, fuel: 5
Oils, fuel: no. 1	= Oils, fuel: no. 1
Oils, fuel: no. 6	= Oils, fuel: no. 6
Oils, miscellaneous: absorption	= Oils, miscellaneous: absorption
Oils, miscellaneous: coal tar	= Oils, miscellaneous: coal tar
Oils, miscellaneous: croton	= Oils, miscellaneous: croton
Oils, miscellaneous: linseed	= Oils, miscellaneous: linseed
Oils, miscellaneous: lubricating	= Oils, miscellaneous: lubricating
Oils, miscellaneous: mineral seal	= Oils, miscellaneous: mineral seal

**SYNONYM**

Oils, miscellaneous: mineral  
Oils, miscellaneous: motor  
Oils, miscellaneous: neatsfoot  
Oils, miscellaneous: penetrating  
Oils, miscellaneous: range  
Oils, miscellaneous: resin  
Oils, miscellaneous: road  
Oils, miscellaneous: rosin  
Oils, miscellaneous: sperm  
Oils, miscellaneous: spindle  
Oils, miscellaneous: spray  
Oils, miscellaneous: tall  
Oils, miscellaneous: tanner's  
Oils, miscellaneous: transformer  
Oils, miscellaneous: turbine  
Oils: clarified  
Oils: crude  
Oils: diesel  
Olefiant gas  
Oleic acid, ammonium salt  
Oleic acid, potassium salt  
Oleic acid, sodium salt  
Oleic acid  
Oleum abietis  
Oleum  
Omal  
Omite  
ONA  
ONP  
Ontrack 8e  
Orpiment  
Orthoarsenic acid  
Orthoboric acid  
Orthocide  
Orthophosphoric acid  
Orthotitanic acid, tetrabutyl ester  
3-Oxa-1, 5-pentanediol  
Oxacetic acid  
Oxacyclopentadiene  
Oxal  
Oxaldehyde  
Oxalic acid dinitrile  
Oxalic acid, diammonium salt  
Oxalic acid, ferrous salt  
Oxalic acid  
Oxalonitrile  
Oxammonium sulfate  
Oxammonium  
2-Oxetanone  
Oxidate LE  
Oxides of nitrogen  
Oxirane  
Oxo octaldehyde  
Oxo octyl alcohol

**COMPOUND NAMES**

= Oils, miscellaneous: mineral  
= Oils, miscellaneous: motor  
= Oils, miscellaneous: neatsfoot  
= Oils, miscellaneous: penetrating  
= Oils, miscellaneous: range  
= Oils, miscellaneous: resin  
= Oils, miscellaneous: road  
= Oils, miscellaneous: rosin  
= Oils, miscellaneous: sperm  
= Oils, miscellaneous: spindle  
= Oils, miscellaneous: spray  
= Oils, miscellaneous: tall  
= Oils, miscellaneous: tanner's  
= Oils, miscellaneous: transformer  
= Oils, miscellaneous: turbine  
= Oils: clarified  
= Oils: crude  
= Oils: diesel  
= Ethylene  
= Ammonium oleate  
= Oleic acid, potassium salt  
= Oleic acid, sodium salt  
= Oleic acid  
= Oil, misc: pine  
= Oleum  
= Trichlorophenol  
= Propargite  
= 2-Nitroaniline  
= 2-Nitrophenol  
= Metolachlor  
= Arsenic trisulfide  
= Arsenic acid  
= Boric acid  
= Captan  
= Phosphoric acid  
= Tetrabutyl titanate  
= Diethylene glycol  
= Glyoxylic acid (50% or less)  
= Furan  
= Glyoxal  
= Glyoxal  
= Cyanogen  
= Ammonium oxalate  
= Ferrous oxalate  
= Oxalic acid  
= Cyanogen  
= Hydroxylamine sulfate  
= Hydroxylamine  
= beta-Propiolactone  
= Methyl benzoate  
= Nitrogen tetroxide  
= Ethylene oxide  
= Isooctaldehyde  
= Isooctyl alcohol

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
3-Oxobutanoic acid methyl ester	= Methyl acetoacetate
alpha-Oxidiphenylmethane	= Benzophenone
alpha-Oxoditane	= Benzophenone
Oxoethanoic acid	= Glyoxylic acid (50% or less)
2-Oxohexamethylenimine	= Caprolactam
Oxole	= Furan
Oxotridecyl alcohol	= Tridecanol
1,1'-[Oxybis(methylene)] bis benzene	= Dibenzyl ether
2,2'-Oxybisethanol	= Diethylene glycol
Oxygen	= Oxygen
Oxylite	= Dibenzoyl peroxide
Oxyphenic acid	= Catechol
Oxytoluenes	= Cresols
Paint drier	= Copper naphthenate
Painter's naphtha	= Naphtha: VM & P
Palm butter	= Oils, edible: palm
Palm fruit oil	= Oils, edible: palm
Palm oil	= Oils, edible: palm
Palm seed oil	= Oils, edible: tucum
PAN	= Phthalic anhydride
Paper maker's alum	= Aluminum sulfate solution
PAPI	= Polymethylene polyphenyl isocyanate
Paracetaldehyde	= Paraldehyde
Paradi	= p-Dichlorobenzene
Paradichlorobenzene	= p-Dichlorobenzene
Paradow	= p-Dichlorobenzene
Paraformaldehyde	= Paraformaldehyde
Paraldehyde	= Paraldehyde
Paramoth	= p-Dichlorobenzene
Paranaphthalene	= Anthracene
Parathion-methyl	= Methyl parathion
Parathion	= Parathion
Paridol	= Methyl parathion
Paris green	= Copper acetoarsenite
Parrot green	= Copper acetoarsenite
Patent aluminum	= Aluminum sulfate
PCB	= Polychlorinated biphenyl
PE	= Pentaerythritol
Pear oil	= Isoamylacetate
Pear oil	= sec-Amyl acetate
Pearl white	= Bismuth oxychloride
Penta-1,4-diene	= 1,4-Pentadiene
Penta	= Pentachlorophenol
Pentaborane	= Pentaborane
(9)-Pentaboron nonahydride	= Pentaborane
Pentachloroethane	= Pentachloroethane
Pentachlorophenol	= Pentachlorophenol
Pentachlorophenyl chloride	= Hexachlorobenzene
o-Pentadecadienyl salicylic acid	= Oil, misc: cashew nut shell
Pentadecanol	= Linear alcohols
Pentadecanol	= Pentadecanol
1-Pentadecanol	= Pentadecanol
Pentadecyl alcohol	= Pentadecanol
trans-Pentadiene-1,3	= 1,3-Pentadiene

SYNONYM	COMPOUND NAMES
cis-Pentadiene-1,3	= 1,3-Pentadiene
1,3-Pentadiene	= 1,3-Pentadiene
1,4-Pentadiene	= 1,4-Pentadiene
Pentaerythrite	= Pentaerythritol
Pentaerythritol	= Pentaerythritol
Pentaethylene hexamine	= Pentaethylenehexamine
Pentaethylenehexamine	= Pentaethylenehexamine
Pentalin	= Pentachloroethane
Pentamethylene	= Cyclopentane
Pentanal	= n-Valeraldehyde
Pentanal	= Valeraldehyde
Pentane	= Pentane
1,5-Pentanedial	= Glutaraldehyde solution
2,4-Pentanedione	= Acetylacetone
1-Pentanethiol	= n-Amyl mercaptan
Pentanoic acid	= Pentanoic acid
1-Pentanol	= n-Amyl alcohol
2-Pentanone	= 2-Pentanone
3-Pentanone	= Diethyl ketone
2-Pentanone	= Methyl propyl ketone
Pentek	= Pentaerythritol
1-Pentene	= 1-Pentene
tert-Pentyl acetate	= tert-Amyl acetate
Pentyl acetates	= Amyl acetate (all isomers)
Pentyl alcohol	= n-Amyl alcohol
1-Pentyl chloride	= n-Amyl chloride
Pentyl methyl ketone	= n-Amyl methyl ketone
n-Pentyl propionate	= n-Pentyl propionate
2-Pentylacetate	= sec-Amyl acetate
2-Pentylbromide	= 2-Bromopentane
sec-Pentylcarbinol	= Ethyl butanol
Pentylformic acid	= Hexanoic acid
Pentylsilicon trichloride	= n-Amyltrichlorosilane
Peracetic acid	= Peracetic acid
Percarbamide	= Urea peroxide
Perchloric acid solution	= Perchloric acid
Perchloric acid	= Perchloric acid
Perchlorobenzene	= Hexachlorobenzene
Perchlorobutadiene	= Hexachlorobutadiene
Perchlorocyclopentadiene	= Hexachlorocyclopentadiene
Perchlorodihomocubane	= Mirex
Perchloroethane	= Hexachloroethane
Perchloroethylene	= Tetrachloroethylene
Perchloromethane	= Carbon tetrachloride
Perchloromethyl mercaptan	= Perchloromethyl mercaptan
Perclene	= Tetrachloroethylene
Perhydronapthalene	= Decahydronaphthalene
Perk	= Tetrachloroethylene
Peroxide	= Hydrogen peroxide
Peroxyacetic acid	= Peracetic acid
Peroxydicarbonic acid,	= Isopropyl percarbonate
Peroxydisulfuric acid, diammonium salt	= Ammonium persulfate
Persian-insect powder	= Pyrethrins
Petrohol	= Isopropyl alcohol

SYNONYM	COMPOUND NAMES
Petrol	= Gasolines: automotive (<4.23g lead/gal)
Petrolatum jelly	= Petrolatum
Petrolatum	= Petrolatum
Petroleum asphalt	= Asphalt
Petroleum asphalt	= Oils, miscellaneous: road
Petroleum distillate	= Distillates: flashed feed stocks
Petroleum distillate	= Distillates: straight run
Petroleum insulating oil	= Oils, miscellaneous: transformer
Petroleum jelly	= Petrolatum
Petroleum naphtha	= Petroleum naphtha
Petroleum pitch	= Asphalt blending stocks: straight run residue
Petroleum residue	= Asphalt blending stocks: straight run residue
Petroleum solvent	= Naphtha: solvent
Petroleum solvent	= Naphtha: stoddard solvent
Petroleum solvent	= Naphtha: VM & P
Petroleum solvent	= Petroleum naphtha
Petroleum spirits	= Mineral spirits
Petroleum tailings	= Asphalt blending stocks: roofers flux
Petroleum wax	= Waxes: paraffin
Petroleum	= Oils: crude
Phellandrene	= Dipentene
Phenachlor	= Trichlorophenol
Phenacyl chloride	= Chloroacetophenone
Phenador-X	= Diphenyl
Phenic acid	= Phenol
Phenol, 2,4,6-trinitro-, ammonium salt	= Ammonium picrate, wet
Phenol, o-chloro-	= o-Chlorophenol
Phenol, o-ethyl	= Ethylphenol
Phenol, pentachloro-, sodium salt	= Sodium pentachlorophenate
Phenol,2-chloro-	= o-Chlorophenol
Phenol	= Phenol
Phenoxybenzene	= Diphenyl ether
2-Phenoxyethanol	= Ethylene glycol phenyl ether
1-Phenyl-1-xylyl ethane	= 1-Phenyl-1-xylyl ethane
Phenyl bromide	= Bromobenzene
Phenyl cellosolve	= Ethylene glycol phenyl ether
Phenyl chloride	= Chlorobenzene
Phenyl chloromethylketone	= Chloroacetophenone
Phenyl ether	= Diphenyl ether
a-Phenyl ethyl alcohol	= a-Methylbenzyl alcohol
Phenyl fluoride	= Fluorobenzene
Phenyl hydroxide	= Phenol
Phenyl mercaptan	= Benzenethiol
Phenyl perchloryl	= Hexachlorobenzene
Phenyl xylyl ethane	= 1-Phenyl-1-xylyl ethane
Phenylamine	= Aniline
N-Phenylaniline	= Diphenylamine
Phenylarsenic dichloride	= Phenylchloroarsine
Phenylbenzene	= Diphenyl
Phenylcarbinol	= Benzyl alcohol
Phenylcyanide	= Benzonitrile
1-Phenyldecane	= n-Decylbenzene

SYNONYM	COMPOUND NAMES
Phenyldichloroarsine	= Phenyldichloroarsine
1-Phenyldodecane	= Dodecylbenzene
Phenylethane	= Ethylbenzene
1-Phenylethanol	= <i>a</i> -Methylbenzyl alcohol
1-Phenylethanone	= Acetophenone
Phenylethylene	= Styrene
Phenylhydrazine hydrochloride	= Phenylhydrazine hydrochloride
Phenylhydrazine	= Phenylhydrazine
Phenylhydrazinium chloride	= Phenylhydrazine hydrochloride
Phenylmercuric acetate	= Phenylmercuric acetate
Phenylmethanol	= Benzyl alcohol
Phenylmethyl acetate	= Benzyl acetate
Phenylmethyl alcohol	= Benzyl alcohol
Phenylmethyl amine	= Benzylamine
Phenylmethyl carbinol	= <i>a</i> -Methylbenzyl alcohol
Phenylphosphine dichloride	= Benzene phosphorus dichloride
Phenylphosphine thiodichloride	= Benzene phosphorus thiodichloride
Phenylphosphonothioic dichloride	= Benzene phosphorus thiodichloride
Phenylphosphonous dichloride	= Benzene phosphorus dichloride
Phenylphosphorus dichloride	= Benzene phosphorus dichloride
1-Phenylpropane	= <i>n</i> -Propylbenzene
Phenylpropylene	= <i>alpha</i> -Methylstyrene
1-Phenyltetradecane	= Tetradecylbenzene
Phenylthiol	= Benzenethiol
1-Phenyltridecane	= Tridecylbenzene
1-Phenylundecane	= <i>n</i> -Undecylbenzene
Phlorol	= Ethylphenol
Phosdrin	= Phosdrin
Phosfene	= Phosdrin
Phosgene	= Phosgene
Phosphinic acid, ammonium salt	= Ammonium hypophosphite
Phosphonic acid, dimethyl ester	= Dimethyl hydrogen phosphite
Phosphoric acid triethyleneimide	= Tris(Aziridinyl)phosphine oxide
Phosphoric acid, tri- <i>n</i> -butyl ester	= Tributyl phosphate
Phosphoric acid, triethyl ester	= Triethyl phosphate
Phosphoric acid, tris(2-methylphenyl) ester	= Tricresyl phosphate ( $\geq 1\%$ ortho isomer)
Phosphoric acid	= Phosphoric acid
Phosphoric sulfide	= Phosphorus pentasulfide
Phosphorodichloridic acid, ethyl ester	= Ethyl phosphorodichloridate
Phosphorothioic acid, O,O-diethyl-O- <i>p</i> -Nitrophenyl ester	= Parathion
Phosphorous acid, triethyl ester	= Triethyl phosphite
Phosphorous acid	= Trimethyl phosphite
Phosphorus bromide	= Phosphorus tribromide
Phosphorus oxychloride	= Phosphorus oxychloride
Phosphorus pentasulfide	= Phosphorus pentasulfide
Phosphorus persulfide	= Phosphorus pentasulfide
Phosphorus tribromide	= Phosphorus tribromide
Phosphorus trichloride	= Phosphorus trichloride
Phosphorus, black	= Phosphorus, black
Phosphorus, red	= Phosphorus, red
Phosphorus, white	= Phosphorus, white
Phosphoryl chloride	= Phosphorus oxychloride

SYNONYM	COMPOUND NAMES
Photophor	= Calcium phosphide
PHPH	= Diphenyl
Phthalandione	= Phthalic anhydride
Phthalic acid anhydride	= Phthalic anhydride
Phthalic acid, benzyl butyl ether	= Butyl benzyl phthalate
Phthalic acid, bis-(2-ethylhexyl ester)	= Di-(2-ethylhexyl)phthalate
Phthalic acid, bis-(7-methyloctyl) ester	= Diisononyl phthalate
Phthalic acid, bis (2-ethylhexyl ester)	= Dioctyl phthalate
Phthalic acid, bis (8-methyl-nonyl) ester	= Diisodecyl phthalate
Phthalic acid, di-isobutyl ester	= Diisobutyl phthalate
Phthalic acid, diamyl ester	= Amyl phthalate
Phthalic acid, diamyl ester	= Di-n-amyl phthalate
Phthalic acid, dibutyl ester	= Dibutyl phthalate
Phthalic acid, diethyl ester	= Diethyl phthalate
Phthalic acid, diheptyl ester	= Diheptyl phthalate
Phthalic acid, diisodecyl ester	= Diisodecyl phthalate
Phthalic acid, dinonyl ester	= Dinonyl phthalate
Phthalic acid, dipentyl ester	= Amyl phthalate
Phthalic acid, dipentyl ester	= Di-n-amyl phthalate
Phthalic acid, ditridecyl ester	= Ditridecyl phthalate
Phthalic acid, diundecyl ester	= Diundecyl phthalate
m-Phthalic acid	= Isophthalic acid
Phthalic anhydride	= Phthalic anhydride
Phygon-XL	= Dichlone
Phygon	= Dichlone
Phytar	= Sodium cacodylate
Picfume	= Chloropicrin
Picoline	= 2-Methylpyridine
2-Picoline	= 2-Methylpyridine
alpha-Picoline	= 2-Methylpyridine
3-Picoline	= 3-Methylpyridine
m-Picoline	= 3-Methylpyridine
b-Picoline	= 3-Methylpyridine
gamma-Picoline	= 4-Methylpyridine
p-Picoline	= 4-Methylpyridine
4-Picoline	= 4-Methylpyridine
Pigment white 3	= Lead sulfate
Pimelic ketone	= Cyclohexanone
alpha-Pinene	= Pinene
2-Pinene	= Pinene
Pinene	= Pinene
Piperazidine	= Piperazine
1-Piperazine ethanamine	= N-Aminoethyl piperazine
Piperazine	= Piperazine
Piperylene	= 1,3-Pentadiene
Pivalic acid	= Trimethylacetic acid
Planavin	= Nitralin
Plant spray oil	= Oils, miscellaneous: spray
Plastic latex	= Latex, liquid synthetic
Plasticized DDP	= Diisodecyl phthalate
Plumbous arsenate	= Lead arsenate
Plumbous chloride	= Lead chloride
Plumbous fluoride	= Lead fluoride
Plumbous oxide	= Litharge



**SYNONYM****COMPOUND NAMES**

Plumbous sulfide	= Lead sulfide
Pluracol polyol	= Polypropylene glycol
PNA	= 4-Nitroaniline
PNP	= 4-Nitrophenol
Poly-solv DB	= Diethylene glycol monobutyl ether
Poly-solv DE	= Diethylene glycol monoethyl ether
Poly-solv DM,	= Diethylene glycol monomethyl ether
Poly-solv EB	= Ethylene glycol monobutyl ether
Poly-solv EE acetate	= 2-Ethoxyethyl acetate
Poly-solv EE acetate	= Ethylene glycol monoethyl ether acetate
Poly-solv EE	= 2-Ethoxyethanol
Poly-solv EE	= Ethylene glycol monoethyl ether
Poly-solv EM	= Ethylene glycol monomethyl ether
Poly (oxyethyl) dodecyl ether	= Ethoxylated dodecanol
Poly (oxyethyl) lauryl ether	= Ethoxylated dodecanol
Poly (propylene glycol) methyl ether	= Polypropylene glycol methyl ether
Poly solv	= Diethylene glycol dimethyl ether
Poly(dimethylsiloxane)	= Dimethylpolysiloxane
Poly(ethyleneimine)	= Polyethylene polyamines
Poly(oxyethyl) myristyl ether	= Ethoxylated tetradecanol
Poly(oxyethyl) pentadecyl ether	= Ethoxylated pentadecanol
Poly(oxyethyl) tetradecyl ether	= Ethoxylated tetradecanol
Poly(oxyethyl) tridecyl ether	= Ethoxylated tridecanol
Polybutene	= Polybutene
Polychlorinated biphenyl	= Polychlorinated biphenyl
Polychloropolyphenyls	= Polychlorinated biphenyl
Polycizer 962-BPA	= Ditridecyl phthalate
Polyethylene polyamines	= Polyethylene polyamines
Polyethyleneimine	= Polyethylene polyamines
Polyformaldehyde	= Paraformaldehyde
Polyisobutylene plastics	= Polybutene
Polyisobutylene resins	= Polybutene
Polyisobutylene waxes	= Polybutene
Polymethylene polyphenyl isocyanate	= Polymethylene polyphenyl isocyanate
Polyoxpropylene glycol	= Polypropylene glycol
Polyoxymethylene glycol	= Paraformaldehyde
Polyoxymethylene	= Paraformaldehyde
Polyoxypropylene glycol methyl ether	= Polypropylene glycol methyl ether
Polyoxypropylene glycol	= Polypropylene glycol
Polyphosphoric acid	= Polyphosphoric acid
Polypropylene glycol methyl ether	= Polypropylene glycol methyl ether
Polypropylene glycol	= Polypropylene glycol
Polypropylene glycols P400 to P4000	= Polypropylene glycol
Polypropylene	= Polypropylene
Potash nitrate	= Potassium nitrate
Potash soap	= Potassium oleate
Potassium acid arsenate	= Potassium arsenate
Potassium acid oxalate	= Potassium binoxalate
Potassium antimonyl tartrate	= Antimony potassium tartrate
Potassium arsenate	= Potassium arsenate
Potassium arsenite	= Potassium arsenite
Potassium bichromate	= Potassium dichromate
Potassium binoxalate	= Potassium binoxalate
Potassium chlorate	= Potassium chlorate

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Potassium chromate (VI)	= Potassium chromate
Potassium chromate	= Potassium chromate
Potassium cyanide	= Potassium cyanide
Potassium dichloro-s-triazinetrione	= Potassium dichloro-s-triazinetrione
Potassium dichloroisocyanurate	= Potassium dichloro-s-triazinetrione
Potassium dichromate	= Potassium dichromate
Potassium dihydrogen arsenate	= Potassium arsenate
Potassium fluozirconate	= Zirconium potassium flouride
Potassium hexafluorozirconate	= Zirconium potassium flouride
Potassium hydroxide solution	= Caustic potash solution
Potassium hydroxide	= Potassium hydroxide
Potassium iodide	= Potassium iodide
Potassium metaarsenite	= Potassium arsenite
Potassium nitrate	= Potassium nitrate
Potassium oleate	= Oleic acid, potassium salt
Potassium oleate	= Potassium oleate
Potassium oxalate monohydrate	= Potassium oxalate
Potassium oxalate	= Potassium oxalate
Potassium permanganate	= Potassium permanganate
Potassium peroxide	= Potassium peroxide
Potassium superoxide	= Potassium peroxide
Potassium zinc chromate	= Zinc potassium chromate
Potassium zirconium fluoride	= Zirconium potassium flouride
Potassium	= Potassium
Potato spirit oil	= Isoamyl alcohol
Potcrate	= Potassium chlorate
Preservative oil	= Oils, miscellaneous: penetrating
Primagram	= Metolachlor
Prime steam lard	= Oils, edible: lard
Primextra	= Metolachlor
Prodox 131	= o-Isopropyl phenol
Propadiene-methylacetylene mixture	= Methyl acetylene, propadiene mixture
Propanal	= Propionaldehyde
1-Propanamine, 2-methyl-N-(2-methyl propyl)-	= Diisobutylamine
Propane-1-thiol	= n-Propyl mercaptan
Propane-2-carboxylic acid	= Isobutyric acid
Propane-2-thiol	= Isopropyl mercaptan
Propane-butane-(propylene)	= Liquefied petroleum gas
Propane, 1-nitro-	= 1-Nitropropane
Propane, 1,2,3-trichloro	= 1,2,3-Trichloropropane
Propane, chloro-	= n-Propyl chloride
Propane,1,1-dichloro-	= 1,1-Dichloropropane
Propane	= Propane
Propanecarboxylic acid	= n-Butyric acid
Propanedinitrile	= Propanedinitrile
1,2-Propanediol-1-acrylate	= Hydroxypropyl acrylate
1,2-Propanediol 1-methacrylate	= Hydroxypropyl methacrylate
1,3-Propanediol, 2,2-dimethyl	= 2,2-Dimethylpropane-1,3-diol
1,2-Propanediol	= Propylene glycol
Propanenitrile, 2-hydroxy-2-methyl	= Acetone cyanohydrin
Propanenitrile	= Propionitrile
2-Propanethiol	= Isopropyl mercaptan
1-Propanethiol	= n-Propyl mercaptan

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
1,2,3-Propanetriol	= Glycerine
Propanoic acid butyl ester	= n-Butyl propionate
Propanoic acid, 2-chloro-	= 2-Chloropropionic acid
Propanoic acid, 2,2-di-methyl-	= Trimethylacetic acid
Propanoic acid, ethyl ester	= Ethyl propionate
Propanoic acid	= Propionic acid
Propanoic anhydride	= Propionic anhydride
2-Propanol 1,1',1"-nitrilotri-	= Triisopropanolamine
1-Propanol, 2-amino-	= 2-Propanolamine
1-Propanol, 2-amino-2-methyl-	= 2-Amino-2-methyl-1-propanol (90% or less)
Propanol, 3-(3-(3-methoxypropoxy)propoxy)-	= Tripropylene glycol methyl ether
1-Propanol, 3-amino	= n-Propanolamine
2-Propanol	= Isopropyl alcohol
1-Propanol	= n-Propyl alcohol
2-Propanolamine	= 2-Propanolamine
n-Propanolamine	= n-Propanolamine
3-Propanolamine	= n-Propanolamine
Propanolide	= beta-Propiolactone
2-Propanone	= Acetone
Propanone	= Acetone
Propargil	= Propargite
Propargite	= Propargite
Propargyl alcohol	= Propargyl alcohol
2-Propen-1-ol	= Allyl alcohol
2-Propenal	= Acrolein
Propenamide (50%)	= Acrylamide solution
Propene polymer	= Polypropylene
1-Propene, 2-methyl trimer	= Triisobutylene
Propene, trimer	= Propylene trimer
Propene	= Propylene
2-Propenenitrile, 2-methyl	= Methacrylonitrile
Propeneoxide	= Propylene oxide
Propenionic acid, 2-Methylene	= Methacrylic acid
2-Propenoic acid, decyl ester	= n-Decyl acrylate
Propenoic acid	= Acrylic acid
beta-Propiolactone	= beta-Propiolactone
Propiolic alcohol	= Propargyl alcohol
Propionaldehyde	= Propionaldehyde
Propione	= Diethyl ketone
Propionic acid butyl ester	= n-Butyl propionate
Propionic acid, 2-chloro-	= 2-Chloropropionic acid
Propionic acid, 3-chloro-	= 3-Chloropropionic acid
Propionic acid, 3-ethoxyethyl ester	= Ethyl-3-ethoxypropionate
Propionic acid	= Propionic acid
Propionic aldehyde	= Propionaldehyde
Propionic anhydride	= Propionic anhydride
Propionic nitrile	= Propionitrile
Propionitrile	= Propionitrile
beta-Propionolactone	= beta-Propiolactone
Propionyl oxide	= Propionic anhydride
n-Propoxypropanol	= n-Propoxypropanol
N-Propyl-1-propanamine	= Di-n-propylamine

SYNONYM	COMPOUND NAMES
2-Propyl acetate	= Isopropyl acetate
n-Propyl acetate	= n-Propyl acetate
sec-Propyl alcohol	= Isopropyl alcohol
n-Propyl alcohol	= n-Propyl alcohol
Propyl alcohol	= n-Propyl alcohol
Propyl aldehyde	= Propionaldehyde
n-Propyl chloride	= n-Propyl chloride
Propyl cyanide	= Butyronitrile
n-Propyl ether	= n-Propyl ether
n-Propyl mercaptan	= n-Propyl mercaptan
n-Propyl nitrate	= n-Propyl nitrate
iso-Propylamine	= Isopropylamine
1-Propylamine	= n-Propylamine
n-Propylamine	= n-Propylamine
n-Propylbenzene	= n-Propylbenzene
Propylbromide	= 1-Bromopropane
n-Propylbromide	= 1-Bromopropane
n-Propylcarbinol	= n-Butyl alcohol
n-Propylcarbonyl chloride	= Butyl chloride
Propylene butylene polymer	= Propylene butylene polymer
Propylene dichloride	= 1,2-Dichloropropane
Propylene glycol ethyl ether	= Propylene glycol ethyl ether
Propylene glycol methyl ether acetate	= Propylene glycol methyl ether acetate
Propylene glycol methyl ether	= Propylene glycol methyl ether
Propylene glycol monoacrylate	= Hydroxypropyl acrylate
Propylene glycol monomethacrylate	= Hydroxypropyl methacrylate
Propylene glycol	= Propylene glycol
Propylene oxide	= Propylene oxide
Propylene tetramer	= Dodecene
Propylene tetramer	= Propylene tetramer
Propylene trimer	= Nonene
Propylene trimer	= Propylene trimer
Propylene	= Propylene
Propyleneimine	= Propyleneimine
Propylethylene	= 1-Pentene
Propylic aldehyde	= Propionaldehyde
Propylidene chloride	= 1,1-Dichloropropane
2-Propyn-1-ol	= Propargyl alcohol
1-Propyne-3-ol	= Propargyl alcohol
Propynyl alcohol	= Propargyl alcohol
Prussic acid	= Hydrogen cyanide
Pseudocumene	= 1,2,4-Trimethylbenzene
Pseudocumol	= 1,2,4-Trimethylbenzene
Pseudohexyl alcohol	= Ethyl butanol
Pseudothiourea	= Thiocarbamide
Psicumene	= 1,2,4-Trimethylbenzene
Pyranol 1478	= 1,2,3-Trichlorobenzene
Pyrazine hexahydride	= Piperazine
Pyrethrins	= Pyrethrins
Pyrethrum flowers	= Pyrethrins
4-Pyridinamine	= 4-Aminopyridine
Pyridine, 3-methyl	= 3-Methylpyridine
Pyridine	= Pyridine
4-Pyridylamine	= 4-Aminopyridine

SYNONYM	COMPOUND NAMES
Pyrocatechin	= Catechol
Pyrocatechinic acid	= Catechol
Pyrofax	= Liquefied petroleum gas
Pyrogallic acid	= Pyrogallic acid
Pyrogallol	= Pyrogallic acid
Pyrogenitic acid	= Hydroquinone
Pyromucic aldehyde	= Furfural
Pyroxylic spirit	= Methyl alcohol
Pyroxylin solution	= Collodion
Quakeral	= Furfural
Quicklime	= Calcium oxide
Quicksilver	= Mercury
Quinol	= Hydroquinone
Quinoline	= Quinoline
Quinone	= p-Benzoquinone
R-124	= Monochlorotetrafluoroethane
R-21	= Dichloromonofluoromethane
Racemic lactic acid	= Lactic acid
Range oil	= Jet fuels: JP-1
Range oil	= Kerosene
Range oil	= Oils, fuel: no. 1
Raspite	= Lead tungstate
Ratox	= Thallium sulfate
Raw linseed oil	= Oils, miscellaneous: linseed
RC plasticizer DBP	= Dibutyl phthalate
RCRA waste number U152	= Methacrylonitrile
Realgar	= Arsenic disulfide
Red arsenic glass	= Arsenic disulfide
Red arsenic sulfide	= Arsenic disulfide
Red oil	= Oleic acid
Red orpiment	= Arsenic disulfide
Red oxide of nitrogen	= Nitrogen tetroxide
Red TR base	= 4-Chloro-o-toluidine
Refrigerant 114	= Dichlorotetrafluoroethane
Refrigerant 152A	= 1,1-Difluoroethane
Refrigerant 21	= Dichloromonofluoromethane
Regalon	= Diquat
Reglone	= Diquat
Regulox	= Maleic hydrazide
Reofos 95	= Trixylenyl phosphate
Residual asphalt	= Asphalt blending stocks: straight run residue
Residual fuel oil	= Oils, fuel: 4
Residual fuel oil	= Oils, fuel: 5
Residual fuel oil	= Oils, fuel: no. 6
Residual oil	= Asphalt blending stocks: roofers flux
Resin oil	= Oils, miscellaneous: rosin
Resorcin	= Resorcinol
Resorcinol	= Resorcinol
Retarder W	= Salicylic acid
Retinol	= Oils, miscellaneous: resin
Retinol	= Oils, miscellaneous: rosin
Rhodanate	= Sodium thiocyanate
Rhodanate	= Sodium thiocyanate solution (56% or

**SYNONYM****COMPOUND NAMES**

Road binder	= Asphalt blending stocks: straight run residue
Road oil	= Asphalt blending stocks: roofers flux
Rose ether	= Ethylene glycol phenyl ether
Rosin oil	= Oils, miscellaneous: resin
Rosinol	= Oils, miscellaneous: resin
Rosinol	= Oils, miscellaneous: rosin
Rubbing alcohol	= Isopropyl alcohol
Ruby arsenic	= Arsenic disulfide
Saccharose	= Sucrose
Saccharum	= Sucrose
Safflower oil	= Oils, edible: safflower
Safflower seed oil	= Oils, edible: safflower
Sal acetosella	= Potassium binoxalate
Sal ammoniac	= Ammonium chloride
Sal volatile	= Ammonium carbonate
Salicylal	= Salicylaldehyde
Salicylaldehyde	= Salicylaldehyde
Salicylic acid	= Salicylic acid
Salicylic aldehyde	= Salicylaldehyde
Salmiac	= Ammonium chloride
Salt of Saturn	= Lead acetate
Salt of sorrel	= Potassium binoxalate
Saltpeter	= Potassium nitrate
Salufer	= Sodium silicofluoride
Sand acid	= Fluosilicic acid
Santicizer 711	= Diundecyl phthalate
Santochlor	= p-Dichlorobenzene
Santophen 20	= Pentachlorophenol
Saralex	= Diazinon
Scheele's green	= Copper arsenite
Scheelite	= Lead tungstate
Schweinfurth green	= Copper acetoarsenite
SDMH	= 1,2-Dimethylhydrazine
Seal-coating material	= Asphalt blending stocks: straight run residue
Secondary ammonium phosphate	= Ammonium phosphate
Selenic anhydride	= Selenium trioxide
Selenious acid, disodium salt	= Sodium selenite
Selenious anhydride	= Selenium dioxide
Selenium dioxide	= Selenium dioxide
Selenium oxide	= Selenium dioxide
Selenium trioxide	= Selenium trioxide
Senarmontite	= Antimony trioxide
Sentry	= Calcium hypochlorite
Sevin	= Carbaryl
Sextone B	= Methylcyclohexane
Sextone	= Cyclohexanone
Shell charcoal	= Charcoal
Signal oil	= Oils, miscellaneous: mineral seal
Silibond	= Ethyl silicate
Silicochloroform	= Trichlorosilane
Silicofluoric acid	= Fluosilicic acid

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Silicon chloride	= Silicon tetrachloride
Silicon tetrachloride	= Silicon tetrachloride
Silicone fluids	= Dimethylpolysiloxane
Silver acetate	= Silver acetate
Silver carbonate	= Silver carbonate
Silver fluoride	= Silver fluoride
Silver iodate	= Silver iodate
Silver monofluoride	= Silver fluoride
Silver nitrate	= Silver nitrate
Silver oxide	= Silver oxide
Silver sulfate	= Silver sulfate
Silvex, isoctyl ester	= Isooctyl ester
Silvex	= 2-(2,4,5-Trichlorophenoxy) propanoic acid
Silvisar 510	= Cacodylic acid
SKDN	= White spirit (low (15-20%) aromatic)
Slaked lime	= Calcium hydroxide
Slow curing asphalt	= Oils, miscellaneous: road
Smithsonite	= Zinc carbonate
Soap	= Ammonium stearate
Soda chloric acid, sodium salt	= Sodium chlorate solution
Soda niter	= Sodium nitrate
Sodamide	= Sodium amide
Sodium 2-benzothiazolethioate	= Sodium 2-mercaptobenzothiazol solution
Sodium 2-mercaptobenzothiazol solution	= Sodium 2-mercaptobenzothiazol solution
Sodium acid pyrophosphate	= Sodium phosphate
Sodium acid sulfite	= Sodium bisulfite
Sodium alkyl sulfates	= Sodium alkyl sulfates
Sodium alkylbenzenesulfonates	= Sodium alkylbenzenesulfonates
Sodium aluminate solution (45% or less)	= Sodium aluminate solution (45% or less)
Sodium amide	= Sodium amide
Sodium arsenate, dibasic	= Sodium arsenate
Sodium arsenate	= Sodium arsenate
Sodium arsenite	= Sodium arsenite
Sodium azide	= Sodium azide
Sodium baborate	= Sodium borate
Sodium bichromate	= Sodium dichromate
Sodium bifluoride	= Sodium bifluoride
Sodium bisulfide	= Sodium hydrosulfide solution
Sodium bisulfite solution	= Sodium hydrogen sulfite solution (35% or less)
Sodium bisulfite	= Sodium bisulfite
Sodium borate	= Sodium borate
Sodium borohydride	= Sodium borohydride
Sodium cacodylate	= Sodium cacodylate
Sodium cetyl sulfate solution	= Hexadecyl sulfate, sodium salt
Sodium chlorate solution	= Sodium chlorate solution
Sodium chlorate	= Sodium chlorate
Sodium chromate (VI)	= Sodium chromate
Sodium chromate	= Sodium chromate
Sodium cyanide	= Sodium cyanide
Sodium dichloro-s-triazinetriene	= Sodium dichloro-s-triazinetriene
Sodium dichloroisocyanurate	= Sodium dichloro-s-triazinetriene
Sodium dichromate	= Sodium dichromate

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Sodium difluoride	= Sodium bifluoride
Sodium dimethylarsenate	= Sodium cacodylate
Sodium dodecyl sulfate	= Dodecyl sulfate, sodium salt
Sodium dodecylbenzene sulfonate	= Dodecyl benzene sulfonic acid, sodium salt
Sodium ferrocyanide	= Sodium ferrocyanide
Sodium fluoride	= Sodium fluoride
Sodium fluoroacetate	= Sodium fluoroacetate
Sodium fluosilicate	= Sodium silicofluoride
Sodium hexafluorosilicate	= Sodium silicofluoride
Sodium hydride	= Sodium hydride
Sodium hydrogen alkyl sulfate	= Sodium alkyl sulfates
Sodium hydrogen difluoride	= Sodium bifluoride
Sodium hydrogen fluoride	= Sodium bifluoride
Sodium hydrogen sulfide	= Sodium hydrosulfide solution
Sodium hydrogen sulfite solution (35% or less)	= Sodium hydrogen sulfite solution (35% or less)
Sodium hydrosulfide solution	= Sodium hydrosulfide solution
Sodium hydroxide solution	= Caustic soda solution
Sodium hydroxide solution	= Sodium hydroxide solution
Sodium hydroxide	= Sodium hydroxide
Sodium hypochlorite solution	= Sodium hypochlorite solution
Sodium hypochlorite	= Sodium hypochlorite
Sodium lauryl sulfate	= Dodecyl sulfate, sodium salt
Sodium meta arsenite	= Sodium arsenite
Sodium metabisulfite	= Sodium bisulfite
Sodium methoxide	= Sodium methylate
Sodium methylate	= Sodium methylate
Sodium monofluoroacetate	= Sodium fluoroacetate
Sodium nitrate	= Sodium nitrate
Sodium nitrite liquor	= Sodium nitrite solution
Sodium nitrite solution	= Sodium nitrite solution
Sodium nitrite	= Sodium nitrite
Sodium oleate	= Oleic acid, sodium salt
Sodium ortho arsenite	= Sodium arsenite
Sodium oxalate	= Sodium oxalate
Sodium pentachlorophenate	= Sodium pentachlorophenate
Sodium phosphate dibasic	= Sodium phosphate
Sodium phosphate, monobasic	= Sodium phosphate
Sodium phosphate, tribasic	= Sodium phosphate
Sodium phosphate, tribasic	= Sodium phosphate, tribasic
Sodium phosphate	= Sodium phosphate
Sodium pyroborate	= Sodium borate
Sodium pyrosulfite	= Sodium bisulfite
Sodium rhodanide	= Sodium thiocyanate
Sodium rhodanide	= Sodium thiocyanate solution (56% or less)
Sodium selenite	= Sodium selenite
Sodium silicate	= Sodium silicate
Sodium silicofluoride	= Sodium silicofluoride
Sodium sulfhydrate	= Sodium hydrosulfide solution
Sodium sulfide	= Sodium sulfide
Sodium sulfite	= Sodium sulfite
Sodium sulfocyanate	= Sodium thiocyanate



<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Sodium sulfocyanate	= Sodium thiocyanate solution (56% or less)
Sodium tetraborate, anhydrous	= Sodium borate
Sodium thiocyanate solution (56% or less)	= Sodium thiocyanate solution (56% or less)
Sodium thiocyanate	= Sodium thiocyanate
Sodium	= Sodium
Solar nitrogen solutions	= Ammonium nitrate-urea solution
Soluble glass	= Sodium silicate
Solvarone	= Dimethyl phthalate
Sorbit	= Sorbitol
Sorbitol	= Sorbitol
Sorbol	= Sorbitol
Soybean oil	= Oils, edible: soya bean
Spectracide	= Diazinon
Spirit of ether nitrite	= Ethyl nitrite
Spirit of turpentine	= Turpentine
Spotting naphtha	= Naphtha: stoddard solvent
Staflex DTD	= Ditridecyl phthalate
Stannous flouride	= Stannous flouride
Steam turbine lube oil	= Oils, miscellaneous: turbine
Steam turbine oil	= Oils, miscellaneous: turbine
Stearic acid, ammonium salt	= Ammonium stearate
Stearic acid, lead salt	= Lead stearate
Stearic acid	= Stearic acid
Stearophanic acid	= Stearic acid
Stearyl alcohol, crude	= Tallow fatty alcohol
Stearyldimethylbenzylammonium chloride	= Benzyltrimethyloctadecylammonium chloride
Steinbuhl yellow	= Calcium chromate
Stolzite	= Lead tungstate
Straight run gasoline	= Distillates: straight run
Strontium chromate	= Strontium chromate
Strontium nitrate	= Strontium nitrate
Strontium yellow	= Strontium chromate
Strychnine	= Strychnine
Styrallyl alcohol	= $\alpha$ -Methylbenzyl alcohol
Styrene	= Styrene
Styrol	= Styrene
Styrolene	= Styrene
Sucrose	= Sucrose
Sugar of lead	= Lead acetate
Sugar	= Sucrose
Sulfamic acid, cobalt salt	= Cobalt sulfamate
Sulfamic acid, monoammonium salt	= Ammonium sulfamate
Sulfate of copper	= Copper sulfate
Sulfate turpentine	= Turpentine
Sulfated neatsfoot oil	= Oils, miscellaneous: tanner's
Sulfolane-W	= Sulfolane
Sulfolane	= Sulfolane
Sulfonated alkylbenzene, sodium salt	= Sodium alkylbenzenesulfonates
Sulfotep	= Tetraethyl dithiopyrophosphate
Sulfur dioxide	= Sulfur dioxide
Sulfur monochloride	= Sulfur monochloride

SYNONYM	COMPOUND NAMES
Sulfur	= Sulfur
Sulfuretted hydrogen	= Hydrogen sulfide
Sulfuric acid, chromium (3#I+) salt (3-2)	= Chromic sulfate
Sulfuric acid, diethyl ester	= Diethyl sulfate
Sulfuric acid, spent	= Sulfuric acid, spent
Sulfuric acid, thallium salt	= Thallium sulfate
Sulfuric acid	= Sulfuric acid
Sulfuric chlorhydrin	= Chlorosulfonic acid
Sulfuryl chloride	= Sulfuryl chloride
Sulourea	= Thiocarbamide
Sulphuretted hydrogen	= Hydrogen sulfide
Superoxol	= Hydrogen peroxide
Swedish green	= Copper arsenite
Sweet birch oil	= Methyl salicylate
Sweet spirit of nitre	= Ethyl nitrite
Synthetic rubber latex	= Latex, liquid synthetic
Systox and isosystox mixture	= Demeton
2,4,5-T esters	= 2,4,5-T esters
2,4,5-T sodium salt	= 2,4,5-Trichlorophenoxyacetic acid, sodium salt
T.E.P.	= Tetraethyl pyrophosphate
T.E.P.P.	= Tetraethyl pyrophosphate
2,4,5-T	= 2,4,5-Trichlorophenoxyacetic acid
Tall oil fatty oil	= Tall oil, fatty acid
Tall oil, fatty acid	= Tall oil, fatty acid
Tallow benzyl dimethyl ammonium chloride	= Benzyl dimethyloctadecyl ammonium chloride
Tallow fatty alcohol	= Tallow fatty alcohol
Tallow oil	= Tallow
Tallow	= Tallow
Tannic acid	= Tannic acid
Tannin	= Tannic acid
Tar acids	= Cresols
Tar camphor	= Naphthalene
Tartar emetic	= Antimony potassium tartrate
1-Tartaric acid, ammonium salt	= Ammonium tartrate
Tartaric acid, copper salt	= Copper tartrate
Tartarized antimony	= Antimony potassium tartrate
Tartrated antimony	= Antimony potassium tartrate
TBA	= tert-Butylamine
TBP	= Tributyl phosphate
TBT	= Butyl toluene
TCP	= Tricresyl phosphate (<1% ortho isomer)
TDE	= DDD
TDI	= Toluene 2,4-diisocyanate
TEA	= Triethylaluminum
Teaberry or wintergreen oil	= Methyl salicylate
Tear gas	= Chloroacetophenone
Teflon monomer	= Tetrafluoroethylene
TEG	= Triethylene glycol
TEL	= Tetraethyl lead
Telone	= 1,3-Dichloropropene
Telone	= Dichloropropene, dichloropropane mixture

SYNONYM	COMPOUND NAMES
TEN	= Triethylamine
TEP	= Triethyl phosphate
Terephthalic acid, dimethyl ester	= Dimethyl terephthalate
Tergitol nonionic 3-A-6	= Ethoxylated tridecanol
Tergitol nonionic 45-S-10	= Ethoxylated pentadecanol
Tergitol nonionic 45-S-10	= Ethoxylated tetradecanol
Tergitol nonionic TMN	= Ethoxylated dodecanol
Terpinene	= Dipentene
delta-1,8-Terpodiene	= Dipentene
TETA	= Triethylenetetramine
Tetan	= Tetranitromethane
Tetraammine copper sulfate	= Copper sulfate, ammoniated
3,6,9,12-Tetraazatetradecane-1,14-diamine	= Pentaethylenehexamine
Tetrabutyl titanate	= Tetrabutyl titanate
Tetracap	= Tetrachloroethylene
Tetrachloroethane	= Tetrachloroethane
1,1,2,2-Tetrachloroethane	= Tetrachloroethane
Tetrachloroethylene	= Tetrachloroethylene
Tetrachloromethane	= Carbon tetrachloride
Tetrachlorozirconium	= Zirconium tetrachloride
Tetradecanol	= Linear alcohols
1-Tetradecanol	= Tetradecanol
Tetradecanol	= Tetradecanol
1-Tetradecene	= 1-Tetradecene
n-Tetradecyl alcohol	= Tetradecanol
Tetradecylbenzene	= Tetradecylbenzene
Tetraethyl dithionopyrophosphate	= Tetraethyl dithiopyrophosphate
Tetraethyl dithiopyrophosphate	= Tetraethyl dithiopyrophosphate
Tetraethyl lead	= Tetraethyl lead
Tetraethyl orthosilicate	= Ethyl silicate
Tetraethyl pyrophosphate	= Tetraethyl pyrophosphate
Tetraethyl silicate	= Ethyl silicate
Tetraethylene glycol	= Tetraethylene glycol
Tetraethylenepentamine	= Tetraethylenepentamine
Tetrafluoroethylene	= Tetrafluoroethylene
Tetrahydro-2h-1, 4-oxazine	= Morpholine
3a,4,7,7a-Tetrahydro-4,7-Methanoindene	= Dicyclopentadiene
Tetrahydro-p-oxazine	= Morpholine
3a,4,7,7a-Tetrahydrodimethyl-4,7-methanoindene	= Methylcyclopentadiene dimer
Tetrahydrofuran	= Tetrahydrofuran
Tetrahydronaphthalene	= Tetrahydronaphthalene
1,2,3,4-Tetrahydronaphthalene	= Tetrahydronaphthalene
Tetrahydrothiophene-1,1-Dioxide	= Sulfolane
Tetrahydroxymethylmethane	= Pentaerythritol
Tetralin	= Tetrahydronaphthalene
Tetramethyl lead	= Tetramethyl lead
Tetramethyl thiuram disulfide	= Thiram
1,2,3,5-Tetramethylbenzene	= 1,2,3,5-Tetramethylbenzene
Tetramethylene glycol	= 1,4-Butanediol
Tetramethylene oxide	= Tetrahydrofuran
Tetramethylene sulfone	= Sulfolane
Tetramp	= Tetrahydronaphthalene

SYNONYM	COMPOUND NAMES
Tetranap	= Tetrahydronaphthalene
Tetranitromethane	= Tetranitromethane
Tetrapropylene	= Dodecene
Tetrapropylene	= Propylene tetramer
Tetrine acid	= Ethylenediamine tetracetic acid
Tetrole	= Furan
Tetron	= Tetraethyl pyrophosphate
Tetosin LY	= Diphenyl
Texanol	= 1-Isobutyrate
Thallium (I) acetate	= Thallium acetate
Thallium (I) nitrate	= Thallium nitrate
Thallium acetate	= Thallium acetate
Thallium carbonate	= Thallium carbonate
Thallium monoacetate	= Thallium acetate
Thallium mononitrate	= Thallium nitrate
Thallium nitrate	= Thallium nitrate
Thallium sulfate	= Thallium sulfate
Thalious acetate	= Thallium acetate
Thalious carbonate	= Thallium carbonate
Thalious nitrate	= Thallium nitrate
Thalious sulfate	= Thallium sulfate
Thanol PPG	= Polypropylene glycol
THF	= Tetrahydrofuran
2-Thiapropane	= Dimethyl sulfide
Thiobutyl alcohol	= n-Butyl mercaptan
Thiocarbamide	= Thiocarbamide
Thiocarbonyl chloride	= Thiophosgene
Thiocarbonyl tetrachloride	= Perchloromethyl mercaptan
Thiocyanic acid, ammonium salt	= Ammonium thiocyanate
Thiodan	= Endosulfan
Thiodemeton	= Disulfoton
Thioethyl alcohol	= Ethyl mercaptan
Thiomethyl alcohol	= Methyl mercaptan
Thiophenol	= Benzenethiol
Thiophosgene	= Thiophosgene
Thiophosphoric anhydride	= Phosphorus pentasulfide
Thiosulfuric acid, lead salt	= Lead thiosulfate
Thiourea	= Thiocarbamide
2-Thiourea	= Thiocarbamide
Thiram	= Thiram
Thiuram	= Thiram
Thorium nitrate tetrahydrate	= Thorium nitrate
Thorium nitrate	= Thorium nitrate
TIBA	= Triisobutylaluminum
Tibal	= Triisobutylaluminum
Tin difluoride	= Stannous fluoride
Titanium butoxide	= Tetrabutyl titanate
Titanium tetrabutoxide	= Tetrabutyl titanate
Titanium tetrachloride	= Titanium tetrachloride
TMP	= Trimethyl phosphite
TNM	= Tetranitromethane
2,4-Tolamine	= Toluenediamine
Toluene 2,4-diisocyanate	= Toluene 2,4-diisocyanate
m-Toluene diamine	= Toluenediamine

SYNONYM	COMPOUND NAMES
Toluene, 2,6-dinitro-	= 2,6-Dinitrotoluene
Toluene, 3,4-dinitro-	= 3,4-Dinitrotoluene
Toluene, hexahydro	= Methylcyclohexane
Toluene, o-nitro	= o-Nitrotoluene
Toluene, p-nitro-	= p-Nitrotoluene
Toluene, p-tert-butyl	= Butyl toluene
Toluene	= Toluene
Toluenediamine	= Toluenediamine
2,4-Toluenediamine	= Toluenediamine
p-Toluenesulfonic acid	= p-Toluenesulfonic acid
m-Toluidine	= m-Toluidine
o-Toluidine	= o-Toluidine
p-Toluidine	= p-Toluidine
o-Toluol	= o-Cresol
p-Toluol	= p-Cresol
Toluol	= Toluene
meta-Toluylenediamine	= Toluenediamine
m-Tolyl chloride	= m-Chlorotoluene
o-Tolyl chloride	= o-Chlorotoluene
p-Tolyl chloride	= p-Chlorotoluene
Tolyl epoxypropyl ether	= Cresyl glycidyl ether
o-Tolyl fluoride	= 2-Fluorotoluene
m-Tolyl fluoride	= 3-Fluorotoluene
p-Tolyl fluoride	= 4-Fluorotoluene
Tolyl glycidyl ether	= Cresyl glycidyl ether
2,4-Tolylene diisocyanate	= Toluene 2,4-diisocyanate
4-m-Toluylenediamine	= Toluenediamine
o-Tolylphosphate phosphoric acid	= Tricresyl phosphate (>= 1% ortho isomer)
Tosic acid	= p-Toluenesulfonic acid
Toxaphene	= Toxaphene
Toxichlor	= Chlordane
Toxilic acid	= Maleic acid
Toxilic anhydride	= Maleic anhydride
2,4,5-TP acid esters	= Isooctyl ester
2,4,5-TP	= 2-(2,4,5-Trichlorophenoxy) propanoic acid
Transmission oil	= Oils, miscellaneous: lubricating
Transmission oil	= Oils, miscellaneous: motor
Treflan	= Trifluralin
Trethylene	= Trichloroethylene
Tri-6	= gamma-Benzene hexachloride
Tri-iso-propanolamine	= Triisopropanolamine
Tri-n-butyl phosphate	= Tributyl phosphate
Tri-n-propylamine	= Tripropylamine
Tri-o-cresyl ester	= Tricresyl phosphate (>= 1% ortho isomer)
Tri-p-cresyl phosphate	= Tricresyl phosphate (<1% ortho isomer)
Tri-p-tolyl phosphate	= Tricresyl phosphate (<1% ortho isomer)
Tributyl phosphate	= Tributyl phosphate
Tricalcium arsenate	= Calcium arsenate
Tricalcium ortho arsenate	= Calcium arsenate
Trichloran	= Trichloroethylene
Trichlorfon	= Trichlorfon

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Trichlormethyl sulfur chloride	= Perchloromethyl mercaptan
1,1,2-Trichloro-1,2,2-trifluoroethane	= 1,1,2-Trichloro-1,2,2-trifluoroethane
1,1,1-Trichloro-2,2-bis(p-chlorophenyl) ethane	= DDT
Trichloro-s-triazine-2,4,6-(1h, 3h, 5h)-trione	= Trichloro-s-triazinetrione
Trichloro-s-triazinetrione	= Trichloro-s-triazinetrione
Trichloroacetaldehyde	= Trichloroacetaldehyde
Trichloroamylsilane	= n-Amyltrichlorosilane
V-Trichlorobenzene	= 1,2,3-Trichlorobenzene
1,2,3-Trichlorobenzene	= 1,2,3-Trichlorobenzene
Vic-Trichlorobenzene	= 1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene	= 1,2,4-Trichlorobenzene
unsym-Trichlorobenzene	= 1,2,4-Trichlorobenzene
1,2,4-Trichlorobenzol	= 1,2,4-Trichlorobenzene
1,1,2-Trichloroethane	= 1,1,2-Trichloroethane
1,1,1-Trichloroethane	= Trichloroethane
Trichloroethane	= Trichloroethane
Trichloroethyl silane	= Ethyltrichlorosilane
Trichloroethyl silicone	= Ethyltrichlorosilane
Trichloroethylene	= Trichloroethylene
Trichloroethylene	= Trichloroethylene
Trichlorofluoromethane	= Trichlorofluoromethane
Trichlorohydrin	= 1,2,3-Trichloropropane
Trichloroiminoisocyanuric acid	= Trichloro-s-triazinetrione
Trichloroisocyanuric acid	= Trichloro-s-triazinetrione
Trichloromethane sulfuryl chloride	= Perchloromethyl mercaptan
Trichloromethane	= Chloroform
Trichloromethanesulfenyl chloride	= Perchloromethyl mercaptan
Trichloromethyl sulfochloride	= Perchloromethyl mercaptan
N-[(Trichloromethyl)thio]-4-cyclohexene-1,2,-dicarbodimide	= Captan
Trichloromethylsilane	= Methyltrichlorosilane
Trichloromonosilane	= Trichlorosilane
Trichloronitromethane	= Chloropicrin
Trichlorooxovanadium	= Vanadium oxytrichloride
Trichloropentylsilane	= n-Amyltrichlorosilane
2,4,5-Trichlorophenol	= Trichlorophenol
Trichlorophenol	= Trichlorophenol
2-(2,4,5-Trichlorophenoxy) propanoic acid	= 2-(2,4,5-Trichlorophenoxy) propanoic acid
2,4,5-Trichlorophenoxyacetic acid, sodium salt	= 2,4,5-Trichlorophenoxyacetic acid, sodium salt
2,4,5-Trichlorophenoxyacetic acid	= 2,4,5-Trichlorophenoxyacetic acid
1,2,3-Trichloropropane	= 1,2,3-Trichloropropane
Trichlorosilane	= Trichlorosilane
Trichlorotriazinetrione	= Trichloro-s-triazinetrione
1,1,2-Trichlorotrifluoroethane	= 1,1,2-Trichloro-1,2,2-trifluoroethane
Trichlorovinyl silicane	= Vinyltrichlorosilane
Trichlorovinylsilane	= Vinyltrichlorosilane
Triclène; algylen	= Trichloroethylene
Tricresyl phosphate (<1% ortho isomer)	= Tricresyl phosphate (<1% ortho isomer)
Tricresyl phosphate (>)	= 1% ortho isomer)=Tricresyl phosphate (>= 1% ortho isomer)

SYNONYM	COMPOUND NAMES
n-Tridecane	= Tridecane
Tridecane	= Tridecane
1-Tridecanol, phthalate	= Ditridecyl phthalate
Tridecanol	= Linear alcohols
Tridecanol	= Tridecanol
1-Tridecanol	= Tridecanol
1-Tridecene	= 1-Tridecene
Tridecylbenzene	= Tridecylbenzene
Tridimethylphenyl phosphate	= Trixylenyl phosphate
Trien	= Triethylenetetramine
Triethanolamine	= Dodecylbenzenesulfonic acid,
dodecylbenzenesulfonate	triethanolamine salt
Triethanolamine lauryl sulfate	= Dodecyl sulfate, triethanolamine salt
Triethanolamine	= Triethanolamine
Triethyl phosphate	= Triethyl phosphate
Triethyl phosphite	= Triethyl phosphite
Triethylaluminum	= Triethylaluminum
Triethylamine	= Triethylamine
Triethylbenzene	= Triethylbenzene
1,3,5-Triethylbenzene	= Triethylbenzene
sym-Triethylbenzene	= Triethylbenzene
Triethylene glycol di-(2-ethylbutyrate)	= Triethylene glycol di-(2-ethylbutyrate)
Triethylene glycol ethyl ether	= Triethylene glycol ethyl ether
Triethylene glycol methyl ether	= Triethylene glycol methyl ether
Triethylene glycol monoethyl ether	= Ethoxy triglycol
Triethylene glycol monoethyl ether	= Triethylene glycol ethyl ether
Triethylene glycol monomethyl ether	= Triethylene glycol methyl ether
Triethylene glycol	= Triethylene glycol
Triethylenephosphoramidate	= Tris(Aziridinyl)phosphine oxide
Triethylenetetramine	= Triethylenetetramine
Triethylolamine	= Triethanolamine
Trifluorochloroethylene	= Trifluorochloroethylene
Trifluorochloromethane	= Monochlorotrifluoromethane
Trifluoromethyl chloride	= Monochlorotrifluoromethane
Trifluoromonochloroethylene	= Trifluorochloroethylene
Trifluorovinyl chloride	= Trifluorochloroethylene
Trifluralin	= Trifluralin
Triglycine	= Nitrotriacetic acid and salts
Triglycol dicaproate	= Triethylene glycol di-(2-ethylbutyrate)
Triglycol dihexoate	= Triethylene glycol di-(2-ethylbutyrate)
Triglycol methyl ether	= Triethylene glycol methyl ether
Triglycol monoethyl ether	= Ethoxy triglycol
Triglycol monoethyl ether	= Triethylene glycol ethyl ether
Triglycol	= Triethylene glycol
1,2,3-Trihydroxybenzene	= Pyrogalllic acid
3,4,5-Trihydroxybenzoic acid	= Gallic acid
1,2,3-Trihydroxypropane	= Glycerine
Trihydroxytriethylamine	= Triethanolamine
Triisobutene	= Triisobutylene
Triisobutylaluminum	= Triisobutylaluminum
Triisobutylene	= Triisobutylene
Triisopropanolamine	= Triisopropanolamine
Trilene	= Trichloroethylene
2,4,4-Trimethyl-1-pentene	= Diisobutylene

SYNONYM	COMPOUND NAMES
2,4,6-Trimethyl-1,3,5-trioxane	= Paraldehyde
3,5,5-Trimethyl-2-cyclohexane-1-one	= Isophorone
4,7,7-Trimethyl-3-norcarene	= Carene
Trimethyl ester	= Trimethyl phosphite
Trimethyl hexamethylene diamine	= Trimethyl hexamethylene diamine
Trimethyl phosphite	= Trimethyl phosphite
Trimethylacetic acid	= Trimethylacetic acid
Trimethylamine	= Trimethylamine
Trimethylaminomethane	= tert-Butylamine
Asymmetrical Trimethylbenzene	= 1,2,4-Trimethylbenzene
1,2,4-Trimethylbenzene	= 1,2,4-Trimethylbenzene
Trimethylbenzylammonium chloride	= Benzyltrimethylammonium chloride
2,6,6-Trimethylbicyclo [3.1.1]hept-2-ene, 9cl	= Pinene
3,7,7-Trimethylbicyclo[0, 1, 4]hept-3-ene	= Carene
Trimethylcarbinol	= tert-Butyl alcohol
Trimethylchlorosilane	= Trimethylchlorosilane
Trimethylene chloride	= 1,3-Dichloropropane
Trimethylene dichloride	= 1,3-Dichloropropane
Trimethylene	= Cyclopropane
Trimethylheptanals	= Isodecaldehyde
Trimethylhexamethylene diisocyanate	= Trimethylhexamethylene diisocyanate
Trimethylsilyl chloride	= Trimethylchlorosilane
5,8,11-Trioxapentadecane	= Diethylene glycol dibutyl ether
3,6,9-Trioxaundecan-1, 11-diol	= Tetraethylene glycol
Tripropylamine	= Tripropylamine
Tripropylene glycol methyl ether	= Tripropylene glycol methyl ether
Tripropylene glycol	= Tripropylene glycol
Tripropylene	= Nonene
Tripropylene	= Propylene trimer
Trisodium nitrilotriacetate	= Nitrilotriacetic acid and salts
Trisodium orthophosphate	= Sodium phosphate, tribasic
Trisodium phosphate	= Sodium phosphate, tribasic
Trixylenyl phosphate	= Trixylenyl phosphate
Trixylyl phosphate	= Trixylenyl phosphate
p-TSA	= p-Toluenesulfonic acid
Tubercuprose	= Copper formate
Tucum oil	= Oils, edible: tucum
Turbine oil	= Oils, miscellaneous: turbine
Turpentine	= Turpentine
Turps	= Turpentine
Tyranton	= Diacetone alcohol
Ucane alkylate 12	= Dodecylbenzene
Ucar bisphenol HP	= Bisphenol A
Ucar solvent 2IM	= Dipropylene glycol methyl ether
Ucon 11	= Trichlorofluoromethane
Ucon 12	= Dichlorodifluoromethane
Uconn-22	= Chlorodifluoromethane
UDMH	= 1,1-Dimethylhydrazine
UF oxylignin	= Vanillan black liquor
UN 1272 (DOT)	= Oil, misc: pine
UN 2057 (DOT)	= Propylene trimer
UN 2243 (DOT)	= Cyclohexyl acetate
UN 2271 (DOTt)	= Ethyl amyl ketone



SYNONYM	COMPOUND NAMES
UN 2296 (DOT)	= Methylcyclohexane
UN 2323 (DOT)	= Triethyl phosphite
UN 2324 (DOT)	= Triisobutylene
UN 2364 (DOT)	= n-Propylbenzene
UN 2708 (DOT)	= 3-Methoxybutyl acetate
Un; do; tri; tetra; penta; or Hexa benzenesulfonic acid	= Alkyl(C <sub>11</sub> . C <sub>17</sub> )benzenesulfonic acid
UN2241 (DOT)	= Cycloheptane
UN2246 (DOT)	= Cyclopentene
UN2313 (DOT)	= 3-Methylpyridine
UN2313 (DOT)	= 4-Methylpyridine
n-Undecanoic acid	= Undecanoic acid
Undecanoic acid	= Undecanoic acid
Undecanol	= Undecanol
1-Undecanol	= Undecanol
1-Undecene	= 1-Undecene
n-Undecoic acid	= Undecanoic acid
Undecyl alcohol	= Undecanol
n-Undecylbenzene	= n-Undecylbenzene
Undecylethylene	= 1-Tridecene
n-Undecylic acid	= Undecanoic acid
Unipine	= Oil, misc: pine
Unslaked lime	= Calcium oxide
Uran, rustica	= Urea, ammonium nitrate soln (w/aqua ammonia)
Uranium acetate dihydrate	= Uranyl acetate
Uranium acetate	= Uranyl acetate
Uranium nitrate	= Uranyl nitrate
Uranium oxide (UO#m4)	= Uranium peroxide
Uranium oxide peroxide (UO#m2[O#m2])	= Uranium peroxide
Uranium oxyacetate dihydrate	= Uranyl acetate
Uranium peroxide	= Uranium peroxide
Uranium sulfate trihydrate	= Uranyl sulfate
Uranium sulfate	= Uranyl sulfate
Uranyl acetate dihydrate	= Uranyl acetate
Uranyl acetate	= Uranyl acetate
Uranyl nitrate	= Uranyl nitrate
Uranyl sulfate trihydrate	= Uranyl sulfate
Uranyl sulfate	= Uranyl sulfate
Urea hydrogen peroxide	= Urea peroxide
Urea peroxide	= Urea peroxide
Urea, ammonium nitrate soln (w/aqua ammonia)	= Urea, ammonium nitrate soln (w/aqua ammonia)
Urea, hydrogen peroxide salt	= Urea peroxide
Urea, thio-	= Thiocarbamide
Urea	= Urea
Urotropin	= Hexamethylenetetramine
USAF DO-45	= Acetal
USAF DO-46	= N-Aminoethyl piperazine
USAF ST40	= Methacrylonitrile
Valentinite	= Antimony trioxide
Valeral	= Valeraldehyde
n-Valeraldehyde	= n-Valeraldehyde
Valeraldehyde	= Valeraldehyde

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Valeric acid	= Pentanoic acid
Valeric aldehyde	= n-Valeraldehyde
Valeric aldehyde	= Valeraldehyde
VAM	= Vinyl acetate
Vanadic anhydride	= Vanadium pentoxide
Vanadium oxide	= Vanadium oxide
Vanadium oxysulfate	= Vanadyl sulfate
Vanadium oxytrichloride	= Vanadium oxytrichloride
Vanadium pentaoxide	= Vanadium pentoxide
Vanadium pentoxide	= Vanadium oxide
Vanadium pentoxide	= Vanadium pentoxide
Vanadium(V) oxide	= Vanadium oxide
Vanadyl chloride	= Vanadium oxytrichloride
Vanadyl sulfate dihydrate	= Vanadyl sulfate
Vanadyl sulfate	= Vanadyl sulfate
Vanadyl trichloride	= Vanadium oxytrichloride
Vanicide	= Captan
Vanillan black liquor	= Vanillan black liquor
Vapona	= Dichlorvos
Vapotone	= Tetraethyl pyrophosphate
Vaseline	= Petrolatum
VCL	= Vinyl chloride
VCM	= Vinyl chloride
Vegetable carbon	= Charcoal
Velsicol 1068	= Chlordane
Velsicol	= Heptachlor
Ventox	= Acrylonitrile
Vermilion	= Mercuric sulfide
Versene acid	= Ethylenediamine tetracetic acid
Vidden D	= Dichloropropene, dichloropropane mixture
Vienna green	= Copper acetoarsenite
Vilrathane 4300	= Diphenylmethane diisocyanate
Vinamar	= Vinyl ethyl ether
Vinegar acid	= Acetic acid
Vinegar naphtha	= Ethyl acetate
4-Vinyl-1-cyclohexene	= Vinylcyclohexene
Vinyl A monomer	= Vinyl acetate
Vinyl acetate	= Vinyl acetate
Vinyl C monomer	= Vinyl chloride
Vinyl carbinol	= Allyl alcohol
Vinyl chloride	= Vinyl chloride
Vinyl cyanide	= Acrylonitrile
Vinyl ethyl ether	= Vinyl ethyl ether
Vinyl fluoride	= Vinyl fluoride
Vinyl formic acid	= Acrylic acid
Vinyl methyl ether	= Vinyl methyl ether
Vinyl neodecanoate	= Vinyl neodecanoate
Vinyl toluene	= Vinyl toluene
Vinyl trichloride	= 1,1,2-Trichloroethane
Vinylbenzene	= Styrene
Vinylcyclohexene	= Vinylcyclohexene
Vinylethylene	= Butadiene
Vinylidene chloride	= Vinylidene chloride

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Vinylsilicon trichloride	= Vinyltrichlorosilane
Vinyltrichlorosilane	= Vinyltrichlorosilane
Vulkacit HX	= N-Ethylcyclohexylamine
VV 10 vinyl monomer	= Vinyl neodecanoate
Vyac	= Vinyl acetate
W-10	= Ethylene dibromide
W-15	= Ethylene dibromide
W-40	= Ethylene dibromide
Water displacing oil	= Oils, miscellaneous: penetrating
Water glass	= Sodium silicate
Waxes: carnauba	= Waxes: carnauba
Waxes: paraffin	= Waxes: paraffin
Weisspiessglanz	= Antimony trioxide
White arsenic	= Arsenic trioxide
White oil	= Oils, miscellaneous: mineral
White spirit (low (15-20%) aromatic)	= White spirit (low (15-20%) aromatic)
White vitriol	= Zinc sulfate
Witicizer 300	= Dibutyl phthalate
Wolfatox	= Methyl parathion
Wood alcohol	= Methyl alcohol
Wood charcoal	= Charcoal
Wood ether	= Dimethyl ether
Wood spirit	= Methyl alcohol
Wood turpentine	= Turpentine
Xenene	= Diphenyl
m-Xylene	= m-Xylene
o-Xylene	= o-Xylene
p-Xylene	= p-Xylene
Xylenol, phosphate (3:1)	= Trixylenyl phosphate
Xylenol	= Xylenol
2,6-Xylenol	= Xylenol
o-Xylidine	= 2,6-Dimethylaniline
2,6-Xylidine	= 2,6-Dimethylaniline
Xylol	= m-Xylene
Xylol	= o-Xylene
Xylol	= p-Xylene
Xylyl phosphate	= Trixylenyl phosphate
2,6-Xylylamine	= 2,6-Dimethylaniline
Yarmor pine oil	= Oil, misc: pine
Yarmor	= Oil, misc: pine
Yellow arsenic sulfide	= Arsenic trisulfide
Yellow petrolatum	= Petrolatum
Yellow phosphorus	= Phosphorus, white
Zactran	= Zectran
Zectane	= Zectran
Zectran	= Zectran
Zelio	= Thallium sulfate
Zextran	= Zectran
Zinc acetate dihydrate	= Zinc acetate
Zinc acetate	= Zinc acetate
Zinc ammonium chloride	= Zinc ammonium chloride
Zinc arsenate	= Zinc arsenate
Zinc bichromate	= Zinc bichromate
Zinc borate	= Zinc borate

<b>SYNONYM</b>	<b>COMPOUND NAMES</b>
Zinc bromide	= Zinc bromide
Zinc carbonate	= Zinc carbonate
Zinc chloride	= Zinc chloride
Zinc chromate (VI) hydroxide	= Zinc chromate
Zinc chromate	= Zinc chromate
Zinc cyanide	= Zinc cyanide
Zinc diacetate	= Zinc acetate
Zinc dialkyldithiophosphate	= Zinc dialkyldithiophosphate
Zinc dichromate	= Zinc bichromate
Zinc dicyanide	= Zinc cyanide
Zinc diethyl	= Diethylzinc
Zinc difluoride	= Zinc fluoride
Zinc dihexyldithiophosphate	= Zinc dialkyldithiophosphate
Zinc dihexylphosphorodithioate	= Zinc dialkyldithiophosphate
Zinc dimethyl	= Dimethylzinc
Zinc dithionite	= Zinc hydrosulfite
Zinc ethyl	= Diethylzinc
Zinc ethylenediaminetetraacetate	= Diammonium salt of zinc EDTA
Zinc fluoborate solution	= Zinc fluoroborate
Zinc fluoride	= Zinc fluoride
Zinc fluoroborate	= Zinc fluoroborate
Zinc fluosilicate	= Zinc silicofluoride
Zinc formate	= Zinc formate
Zinc hexafluorosilicate	= Zinc silicofluoride
Zinc hydrosulfite	= Zinc hydrosulfite
Zinc methyl	= Dimethylzinc
Zinc nitrate hexahydrate	= Zinc nitrate
Zinc nitrate	= Zinc nitrate
Zinc O,O-di-n-butylphosphorodithioate	= Zinc dialkyldithiophosphate
Zinc p-phenolsulfonate	= Zinc phenolsulfonate
Zinc phenolsulfonate octahydrate	= Zinc phenolsulfonate
Zinc phenolsulfonate	= Zinc phenolsulfonate
Zinc phosphide	= Zinc phosphide
Zinc potassium chromate	= Zinc potassium chromate
Zinc silicofluoride hexahydrate	= Zinc silicofluoride
Zinc silicofluoride	= Zinc silicofluoride
Zinc sulfate heptahydrate	= Zinc sulfate
Zinc sulfate	= Zinc sulfate
Zinc sulfocarbolate	= Zinc phenolsulfonate
Zinc sulfophenate	= Zinc phenolsulfonate
Zinc vitriol	= Zinc sulfate
Zinc yellow Y-539-D	= Zinc potassium chromate
Zinc yellow	= Zinc chromate
Zirconium acetate solution	= Zirconium acetate
Zirconium acetate	= Zirconium acetate
Zirconium chloride	= Zirconium tetrachloride
Zirconium nitrate pentahydrate	= Zirconium nitrate
Zirconium nitrate	= Zirconium nitrate
Zirconium oxide chloride	= Zirconium oxychloride
Zirconium oxychloride hydrate	= Zirconium oxychloride
Zirconium oxychloride	= Zirconium oxychloride
Zirconium potassium flouride	= Zirconium potassium flouride
Zirconium sulfate tetrahydrate	= Zirconium sulfate
Zirconium sulfate	= Zirconium sulfate

**SYNONYM**

Zirconium tetrachloride solid (DOT)  
Zirconium tetrachloride  
Zirconyl chloride

**COMPOUND NAMES**

= Zirconium tetrachloride  
= Zirconium tetrachloride  
= Zirconium oxychloride

## 9. INDEX OF CODES

AAC	Acetic acid	AMH	Ammonium hydroxide (<28% aqueous ammonia)
AAD	Acetaldehyde	AMK	n-Amyl methyl ketone
AAM	Acrylamide solution	AMM	n-Amyl mercaptan
AAN	n-Amyl alcohol	AMN	Ammonium nitrate
AAS	sec-Amyl acetate	AMP	Ammonium perchlorate
AAT	Ammonium acetate	AMR	Ammonium stearate
ABC	Ammonium bicarbonate	AMS	Ammonium sulfate
ABF	Ammonium bifluoride	AMT	Ammonium thiocyanate
ABM	Acetyl bromide	AMY	n-Amyl chloride
ABN	Alkyl (C <sub>11</sub> – C <sub>17</sub> ) benzenesulfonic acid	ANB	Ammonium bromide
ABR	Allyl bromide	ANI	iso-Amyl nitrite
ABZ	Ammonium benzoate	ANL	Aniline
ACA	Acetic anhydride	ANP	Ammonium nitrate-phosphate mixture
ACB	Ammonium carbonate	ANS	Ammonium nitrate-sulfate mixture
ACC	Acetyl chloride	ANT	n-Amyl nitrate
ACD	Acridine	ANU	Ammonium nitrate-urea solution
ACE	Acetylene	AOL	Ammonium oleate
ACF	Allyl chloroformate	AOX	Ammonium oxalate
ACH	Ammonium chromate	APB	Ammonium pentaborate
ACI	Ammonium citrate, dibasic	APC	Antimony pentachloride
ACL	Aluminum chloride	APE	Ammonium persulfate
ACM	Ammonium carbamate	APF	Antimony pentafluoride
ACN	Acrylonitrile	APH	Aluminum phosphide
ACO	Aluminum chloride solution	API	Ammonium picrate, wet
ACP	Acetophenone	APO	Arsenic pentaoxide
ACR	Acrylic acid	APP	Ammonium phosphate
ACT	Acetone	APR	2-Amino-2-methyl-1-propanol (90% or less)
ACY	Acetone cyanohydrin	APS	Acetyl peroxide solution
ADA	Adipic acid	APT	Antimony potassium tartrate
ADN	Adiponitrile	APY	4-Aminopyridine
AEC	Amyl acetate (all isomers)	ARD	Arsenic disulfide
AEE	Aminoethylethanolamine	ARF	Asphalt blending stocks: roofers flux
AEL	Acetal	ARL	Acrolein
AEP	N-Aminoethyl piperazine	ART	Arsenic trisulfide
AFB	Ammonium fluoborate	ARX	Arsenic
AFM	Ammonium formate	ASA	Arsenic acid
AFR	Ammonium fluoride	ASC	Anisoyl chloride
AGC	Ammonium gluconate	ASF	Ammonium sulfide
AHP	Ammonium hypophosphite	ASL	Ammonium silicofluoride
AID	Ammonium iodide	ASM	Ammonium sulfamate
ALA	Allyl alcohol	ASP	Asphalt
ALC	Allyl chloride	ASR	Asphalt blending stocks: straight run residue
ALD	Aldrin	AST	Arsenic trichloride
ALF	Aluminum fluoride	ASU	Ammonium bisulfite
ALM	Aluminum sulfate	ASX	Aluminum sulfate solution
ALN	Aluminum nitrate	ATA	Acetylacetone
ALS	Ammonium lauryl sulfate	ATB	Antimony tribromide
ALT	Ammonium lactate	ATC	Allyltrichlorosilane
AMA	Ammonia, anhydrous	ATF	Ammonium thiosulfate
AMB	Ammonium molybdate	ATH	Anthracene
AMC	Ammonium chloride		
AMD	Ammonium dichromate		
AMF	Ammonium sulfite		

ATL	Amyl phthalate	BNZ	Benzene
ATM	Antimony trichloride	BOC	Bismuth oxychloride
ATN	Acetonitrile	BPA	Bisphenol A
ATO	Arsenic trioxide	BPC	Barium perchlorate
ATR	Ammonium tartrate	BPD	Benzene phosphorus dichloride
ATS	n-Amyltrichlorosilane	BPE	2-Bromopentane
ATT	Antimony trifluoride	BPF	Bromine pentafluoride
ATV	Ammonium thiosulfate solution (60% or less)	BPH	Butyl benzyl phthalate
ATX	Antimony trioxide	BPM	Barium permanganate
ATZ	Atrazine	BPN	n-Butyl propionate
AYA	tert-Amyl acetate	BPO	Barium peroxide
AZM	Azinphos methyl	BPR	1-Bromopropane
BAB	Bromoacetyl bromide	BPT	Benzene phosphorus thiodichloride
BAC	Boric acid	BRA	n-Butyric acid
BAD	iso-Butylaldehyde	BRC	Barium carbonate
BAI	iso-Butyl acrylate	BRE	Bromoacetone
BAL	Benzyl alcohol	BRO	Bromoform
BAM	n-Butylamine	BRT	Boron trichloride
BAN	n-Butyl alcohol	BRU	Brucine
BAS	sec-Butyl alcohol	BRX	Bromine
BAT	tert-Butyl alcohol	BSC	Benzenesulfonyl chloride
BBR	Benzyl bromide	BTA	sec-Butyl acetate
BBT	2-Bromobutane	BTB	Boron tribromide
BBU	1-Bromobutane	BTC	n-butyl acrylate
BBZ	Bromobenzene	BTD	1,4-Butynediol
BCF	Benzyl chloroformate	BTF	Bromine trifluoride
BCL	Benzyl chloride	BTL	sec-Butylamine
BCN	n-Butyl acetate	BTM	n-Butyl mercaptan
BCP	Boiler compound, liquid	BTN	Butylene
BCR	Barium chlorate	BTO	1,2-Butylene oxide
BCS	Butyltrichlorosilane	BTP	p-tert-Butylphenol
BCY	Barium cyanide	BTR	n-Butyraldehyde
BDE	Bisphenol a diglycidyl ether	BUA	tert-Butylamine
BDI	Butadiene	BUB	Butyl butyrate
BDM	Benzyl dimethylamine	BUC	Butyryl chloride
BDO	1,4-Butanediol	BUD	1,4-Butenediol
BEC	Beryllium chloride	BUE	Butyl toluene
BEF	Beryllium fluoride	BUF	n-Valeraldehyde
BEM	Beryllium	BUG	Butylene glycol
BEN	Beryllium nitrate	BUT	Butane
BEO	Beryllium oxide	BYA	tert-Butyl acetate
BES	Beryllium sulfate	BYC	Butyl chloride
BFN	n-Butyl formate	BZA	Benzoic acid
BFO	n-Butyl chloroformate	BZC	Benzoyl chloride
BGE	n-Butyl glycidyl ether	BZD	Benzaldehyde
BHC	gamma Benzene hexachloride	BZE	Benzyl acetate
BHP	tert-Butyl hydroperoxide	BZI	Benzidine
BIB	Isobutyl isobutyrate	BZL	Benzal chloride
BLE	Butyl lactate	BZM	Benzylamine
BMA	Benzyltrimethylammonium chloride	BZN	Benzonitrile
BMI	Isobutyl methacrylate	BZO	Benzyl dimethyloctadecylammonium chloride
BMN	n-butyl methacrylate	BZP	Benzophenone
BNI	Butyronitrile	BZQ	p-Benzoquinone
BNP	2-Butanone peroxide	BZT	Benzenethiol
BNT	Barium nitrate	CAA	Copper acetoarsenite

CAC	Chloroacetyl chloride	CLP	3-Chloropropionic acid
CAF	Calcium fluoride	CLS	Caprolactam
CAH	Calcium hydroxide	CLT	Copper lactate
CAL	Calcium phosphate	CLX	Chlorine
CAM	Calcium	CMA	Chromic anhydride
CAO	Calcium oxide	CMB	Cadmium bromide
CAP	p-Chloroaniline	CMC	Chromyl chloride
CAR	Carene	CME	Chloromethyl methyl ether
CAS	Calcium arsenite	CMH	Cumene hydroperoxide
CAT	Cadmium acetate	CMN	Cadmium nitrate
CBA	Cobalt acetate	CMO	Carbon monoxide
CBB	Carbon disulfide	CMP	p-Cymene
CBC	Cobalt chloride	CMS	Cadmium sulfate
CBD	Copper bromide (ous)	CNE	1-Chloro-1-nitropropane
CBF	Carbofuran	CNI	Copper nitrate
CBN	4-Chlorobutyronitrile	CNN	Copper naphthenate
CBO	Carbolic oil (mixture)	CNO	o-Chloronitrobenzene
CBR	Cyanogen bromide	CNT	Calcium nitrate
CBS	Cobalt sulfate	COB	Cobalt bromide (ous)
CBT	Carbon tetrachloride	COF	Cobalt fluoride
CBY	Carbaryl	COL	Copper oxalate
CCA	Calcium arsenate	COP	Copper acetate
CCB	Calcium carbide	COS	Cobalt sulfamate
CCC	Calcium chlorate	COU	Coumaphos
CCH	Cyclohexanone	COX	Cadmium oxide
CCL	Cyanogen chloride	CPA	Copper arsenite
CCN	Calcium cyanide	CPB	Copper bromide
CCO	Cobalt nitrate	CPC	Copper chloride
CCP	Calcium peroxide	CPE	Cyclopentene
CCR	Calcium chromate	CPF	Copper fluoroborate
CCT	Creosote, coal tar	CPG	Copper glycinate
CCY	Copper cyanide (ous)	CPH	Camphene
CDA	Cacodylic acid	CPL	Chloropicrin
CDC	Cadmium chloride	CPN	p-Chlorophenol
CDN	Chlordane	CPO	Camphor oil
CDO	Carbon dioxide	CPP	Calcium phosphide
CES	Cupriethylenediamine solution	CPR	Cyclopropane
CFB	Cadmium fluoroborate	CPS	Caustic potash solution
CFM	Cobalt formate	CPT	Captan
CGE	Cresyl glycidyl ether	CRA	Chloroacetophenone
CHA	Cyclohexylamine	CRB	Chlorobenzene
CHC	Charcoal	CRC	Chromous chloride
CHD	Chlorohydrins	CRE	Calcium resinate
CHM	Chloroacetic acid (80% or less)	CRF	Chloroform
CHN	Cyclohexanol	CRH	o-Chlorophenol
CHO	Chloroacetaldehyde	CRL	m-Cresol
CHP	Cyclohexanone peroxide	CRN	p-Chlorotoluene
CHS	Chromic sulfate	CRO	o-Cresol
CHT	Cyclohexenyltrichlorosilane	CRP	Chloroprene
CHX	Cyclohexane	CRS	Cresols
CHY	Calcium hypochlorite	CRT	Chromic acetate
CID	Copper iodide	CSA	Chlorosulfonic acid
CIT	Citric acid	CSC	Cresylate spent caustic solution
CLA	2-Chloropropionic acid	CSF	Copper sulfate
CLC	Calcium chloride	CSN	Copper sulfate, ammoniated
CLD	Collodion	CSO	p-Cresol



CSS	Caustic soda solution	DCM	Dichloromethane
CST	Copper subacetate	DCO	Decanoic acid
CSY	Corn syrup	DCP	2,4-Dichlorophenol
CTA	Crotonaldehyde	DCR	N,N-Dimethylcarbamoyl chloride
CTC	Catechol	DCS	Dodecylbenzenesulfonic acid, calcium salt
CTD	4-Chloro-o-toluidine	DCT	1,1-Dichloro-1-nitroethane
CTF	Chlorine trifluoride	DCV	Dichlorvos
CTM	m-Chlorotoluene	DCY	4,6-Dinitro-o-cyclohexyl phenol
CTO	o-Chlorotoluene	DDB	Dodecylbenzene
CTP	Coal tar pitch	DDC	1-Dodecene
CTT	Copper tartrate	DDD	DDD
CUF	Copper formate	DDI	2,2-Dimethylpropane-1,3-diol
CUM	Cumene	DDM	Dodecylmethacrylate
CWD	Creosote (wood)	DDN	Dodecanol
CXY	Carbon oxyfluoride	DDP	Dodecyl/pentadecyl methacrylate
CYA	Cyanoacetic acid	DDS	Dodecyl sulfate, sodium salt
CYC	Cyclohexyl acetate	DDT	DDT
CYE	Cycloheptane	DDW	Dimethylhexane dihydroperoxide
CYG	Cyanogen	DEA	Diethanolamine
CYP	Cyclopentane	DEB	Diethylbenzene
CYT	1,5,9-Cyclododecatriene	DEC	Diethyl carbonate
DAA	Diacetone alcohol	DED	Dieldrin
DAC	Dimethylacetamide	DEE	2,2-Dichloroethyl ether
DAE	N,N-Diethylethanolamine	DEG	Diethylene glycol
DAI	Dodecylbenzenesulfonic acid, isopropylamine salt	DEH	Di-(2-ethylhexyl) adipate
DAL	Decaldehyde	DEK	Diethyl ketone
DAM	Diphenylamine	DEL	1,2-Dichloroethylene
DAN	n-Decyl alcohol	DEM	Diethylene glycol monobutyl ether acetate
DAP	Di-n-amyl phthalate	DEN	Diethylamine
DAR	n-Decyl acrylate	DEP	Di-(2-ethylhexyl)phosphoric acid
DAS	Dodecyl benzene sulfonic acid, sodium salt	DER	Butyl, decyl, cetyl-eicosyl methacrylate
DBA	Di-n-butylamine	DES	2,4-D esters
DBC	Diisobutylcarbinol	DET	Diethylenetriamine
DBE	Di-n-butyl ether	DEZ	Diethylzinc
DBH	Dibromomethane	DFA	Difluorophosphoric acid
DBK	Di-n-butyl ketone	DFE	1,1-Difluoroethane
DBL	Diisobutylene	DFE	1,1-Difluoroethane
DBM	m-Dichlorobenzene	DFE	1,1-Difluoroethane
DBN	Dibenzyl ether	DFE	1,1-Difluoroethane
DBO	o-Dichlorobenzene	DFF	Distillates: flashed feed stocks
DBP	p-Dichlorobenzene	DFM	Dichloromonofluoromethane
DBR	Decaborane	DGA	Diethylene glycol ethyl ether acetate
DBS	Dodecylbenzenesulfonic acid, triethanolamine salt	DGD	Diethylene glycol dimethyl ether
DBT	Dibutylphenol	DGE	Diethylene glycol monoethyl ether
DBU	Diisobutylamine	DGL	Diethylene glycol phthalate
DBZ	n-Decylbenzene	DGM	Diethylene glycol monomethyl ether
DCA	2,4-Dichlorophenoxyacetic acid	DGR	Diethylene glycol methyl ether acetate
DCB	Dichlorobutene	DGT	Dimethyl glutarate
DCC	Decane	DGY	Dipropylene glycol dibenzoate
DCE	1-Decene	DHA	Di-n-hexyl adipate
DCF	Dichlorodifluoromethane	DHE	Diethylene glycol n-hexyl ether
DCH	1,1-Dichloroethane	DHN	Decahydronaphthalene
DCI	2,2'-Dichloroisopropyl ether	DHP	Diheptyl phthalate
DCL	Dichlone	DHX	1,6-Dichlorohexane
		DIA	Diisopropylamine
		DIB	Dichlobenil
		DIC	Dicamba
		DID	Diisodecyl phthalate
		DIE	Di-(2-ethylhexyl)phthalate

DIF	Dinonyl phthalate	DPE	Diphenyl ether
DIG	Diethylene glycol dibutyl ether	DPF	2,3-Dichloropropene
DIH	Diisopropylbenzene hydroperoxide	DPG	Dipropylene glycol
DII	Diisopropyl naphthalene	DPH	Diethyl phthalate
DIK	Diisobutyl ketone	DPI	Dimethyl hydrogen phosphite
DIL	Diphenyl	DPM	Diphenylmethane diisocyanate
DIM	Dimethyl ether	DPN	Dipentene
DIN	Diisononyl phthalate	DPO	Dibenzoyl peroxide
DIO	Diisooctyl phthalate	DPP	1,2-Dichloropropane
DIP	Diisopropanolamine	DPT	Dicyclopentadiene
DIQ	Diquat	DPU	1,3-Dichloropropene
DIS	Disulfoton	DPY	Dipropylene glycol methyl ether
DIT	Diisobutyl phthalate	DSA	Dodecylbenzenesulfonic acid
DIU	Diuron	DSD	Dodecyl sulfate, diethanolamine salt
DIX	Diisopropylbenzene (all isomers)	DSE	Dimethyl succinate
DLA	Dimethyl adipate	DSF	Dimethyl sulfite
DLP	2,2-Dichloropropanoic acid	DSL	Dimethyl sulfide
DLS	N,N-Dimethyl acetamide solution (40% or less)	DSM	Dodecyl sulfate, magnesium salt
DMA	Dimethylamine	DSR	Distillates: straight run
DMB	Dimethylethanolamine	DSS	Diocetyl sodium sulfosuccinate
DMD	Dimethyldichlorosilane	DST	Dodecyl sulfate, triethanolamine salt
DME	Diethylene glycol monobutyl ether	DSU	Diethyl sulfate
DMF	Dimethylformamide	DSZ	Diammonium salt of zinc edta
DMH	1,1-Dimethylhydrazine	DTC	Dodecyltrichlorosilane
DML	1,2-Dimethylhydrazine	DTE	Dichlorotetrafluoroethane
DMM	2,6-Dimethylaniline	DTH	Dowtherm
DMN	2,6-Diethylaniline	DTL	Dimethyl phthalate
DMO	2,2-Dimethyloctanoic acid	DTM	4,4'-Dichloro-alpha-trichloromethyl benzhydrol
DMP	Dimethylpolysiloxane	DTN	Demeton
DMS	Dimethyl sulfoxide	DTP	Ditridecyl phthalate
DMT	Dimethyl terephthalate	DTS	Dextrose solution
DMX	Dichloropropene, dichloropropane mixture	DTT	2,4-Dinitrotoluene
DMZ	Dimethylzinc	DUP	Diundecyl phthalate
DNA	Di-n-propylamine	DUR	Dursban
DNB	m-Dinitrobenzene	DXN	N,n-Dimethylcyclohexylamine
DNC	Dinitrocresol	DZN	Diazinon
DNE	2,5-Dinitrophenol	DZP	Di-(p-chlorobenzoyl) peroxide
DNH	2,6-Dinitrophenol	EAA	Ethyl acetoacetate
DNL	2,6-Dinitrotoluene	EAC	Ethyl acrylate
DNO	o-Dinitrobenzene	EAD	Ethylaluminum dichloride
DNP	2,4-Dinitrophenol	EAI	2-Ethylhexyl acrylate
DNT	2,4-Dinitroaniline	EAK	Ethyl amyl ketone
DNU	3,4-Dinitrotoluene	EAL	Ethyl alcohol
DNY	Diisononyl adipate	EAM	Ethylamine
DNZ	p-Dinitrobenzene	EAS	Ethylaluminum sesquichloride
DOA	Diocetyl adipate	EBA	N-Ethyl-n-butylamine
DOD	Dodecene	EBK	Ethyl butyl ketone
DOL	Dodecyl phenol	EBR	Ethyl butyrate
DOP	Diocetyl phthalate	EBT	Ethyl butanol
DOS	Dodecyl diphenyl ether disulfonate solution	ECA	Ethyl chloroacetate
DOX	1,4-Dioxane	ECC	N-Ethylcyclohexylamine
DPA	Dibutyl phthalate	ECF	Ethyl chloroformate
DPB	1,1-Dichloropropane	ECH	Ethylene chlorohydrin
DPC	1,3-Dichloropropane	ECL	Ethyl chloride
DPD	Diphenyldichlorosilane	ECS	Ethyldichlorosilane

ECT	Ethyl chlorothioformate	ETC	Ethylene cyanohydrin
ECY	Ethyl cyclohexane	ETD	Ethoxylated tridecanol
EDA	Ethylenediamine	ETE	2-Ethyl toluene
EDB	Ethylene dibromide	ETG	Ethoxy triglycol
EDC	Ethylene dichloride	ETH	Ethane
EDR	Endrin	ETI	Ethyleneimine
EDT	Ethylenediamine tetracetic acid	ETL	Ethylene
EEA	2-Ethoxyethyl acetate	ETM	Ethyl methacrylate
EEE	Ethylene glycol diethyl ether	ETN	Ethyl nitrite
EEO	2-Ethoxyethanol	ETO	Ethion
EEP	Ethyl-3-ethoxypropionate	ETS	Ethyltrichlorosilane
EET	Ethyl ether	EVO	Epoxidized vegetable oils
EFM	Ethyl formate	FAC	Ferric ammonium citrate
EGA	Ethylene glycol monoethyl ether acetate	FAL	Furfuryl alcohol
EGB	Ethylene glycol dibutyl ether	FAM	Formamide
EGD	Ethylene glycol dimethyl ether	FAN	2-Fluoroaniline
EGE	Ethylene glycol monoethyl ether	FAO	Ferric ammonium oxalate
EGI	Ethylene glycol isopropyl ether	FAS	Ferrous ammonium sulfate
EGL	Ethylene glycol	FCL	Ferric chloride
EGM	Ethylene glycol monobutyl ether	FCP	Ferric glycerophosphate
EGO	Ethylene glycol acetate	FEC	Ferrous chloride
EGP	Ethylene glycol propyl ether	FFA	Furfural
EGT	Ethylene glycol methyl ether acetate	FFB	Ferrous fluoroborate
EGY	Ethylene glycol diacetate	FFX	Ferric fluoride
EHA	Ethylhexaldehyde	FLA	4-Fluoroaniline
EHC	2-Ethylhexyl acetate	FLB	Fluorobenzene
EHE	Ethyl hexyl phthalate	FLT	2-Fluorotoluene
EHM	2-Ethylhexylamine	FMA	Formic acid
EHO	2-Ethylhexanoic acid	FMS	Formaldehyde solution
EHP	Ethoxydihydropyran	FNT	Ferric nitrate
EHT	Ethyl hexyl tallate	FOX	Ferrous oxalate
EHX	2-Ethyl hexanol	FPS	Ferrophosphorus
ELT	Ethyl lactate	FRS	Ferrous sulfate
EMA	Ethylene glycol monobutyl ether acetate	FSA	Fluosulfonic acid
EMC	Ethyl mercaptan	FSF	Ferric sulfate
EME	Ethylene glycol monomethyl ether	FSL	Fluosilicic acid
EMN	n-Ethyl morpholine	FSN	Ferrosilicon
EMX	Ethylenediamine	FTO	3-Fluorotoluene
ENB	Ethylidene norbornene	FTU	4-Fluorotoluene
ENP	Ethoxylated nonylphenol	FUM	Fumaric acid
EOD	Ethoxylated dodecanol	FUR	Furan
EOP	Ethoxylated pentadecanol	FXX	Fluorine
EOT	Ethoxylated tetradecanol	GAC	Glyoxylic acid (50% or less)
EOX	Ethylene oxide	GAK	Gasoline blending stocks: alkylates
EPA	2-Ethyl-3-propylacrolein	GAT	Gasolines: automotive (<4.23g lead/gal)
EPC	Epichlorohydrin	GAV	Gasolines: aviation (< 4.86g lead/gal)
EPD	Ethyl phosphonothioic dichloride	GCM	Glycidyl methacrylate
EPE	Ethylene glycol phenyl ether	GCR	Glycerine
EPL	Ethylphenol	GCS	Gasolines: casinghead
EPP	Ethyl phosphorodichloridate	GLA	Gallic acid
EPR	Ethyl propionate	GOC	Gas oil: cracked
EPS	Ethylphenyldichlorosilane	GOS	Glyoxal
ESC	Ethyl silicate	GPL	Gasolines: polymer
ESF	Endosulfan	GRF	Gasoline blending stocks: reformates
ETA	Ethyl acetate	GSR	Gasolines: straight run
ETB	Ethylbenzene	GTA	Glutaraldehyde solution

HAC	Hexadecyltrimethylammonium chloride	IOC	Isooctaldehyde
HAE	Hexyl acetate	IPA	Isopropyl alcohol
HAI	2-Hydroxyethyl acrylate	IPC	Isopropyl percarbonate
HAL	n-Hexaldehyde	IPD	Isophorone diisocyanate
HAS	Hydroxylamine sulfate	IPE	Isopropyl ether
HBA	2-Hydroxy-4-(methylthio)-butanoic acid	IPH	Isophorone
HBR	Hydrogen bromide	IPI	Isophorone diamine
HCB	Hexachlorobutadiene	IPL	Isophthalic acid
HCC	Hexachlorocyclopentadiene	IPM	Isopropyl mercaptan
HCE	Hexachloroethane	IPP	Isopropylamine
HCL	Hydrochloric acid	IPR	Isoprene
HCN	Hydrogen cyanide	IPT	Isopentane
HCP	Hexachlorophene	IPX	Isopropyl cyclohexane
HCZ	Hexachlorobenzene	ISA	Isodecyl alcohol
HDA	Hydroxylamine	ISP	o-Isopropyl phenol
HDC	Hydrogen chloride	IVA	Isovaleraldehyde
HDQ	Hydroquinone	JPF	Jet fuels: JP-4
HDS	Hydrogen sulfide	JPO	Jet fuels: JP-1
HDZ	Hydrazine	JPT	Jet fuels: JP-3
HEP	Heptanoic acid	JPV	Jet fuels: JP-5
HFA	Hydrofluoric acid	KPE	Kepone
HFS	Hydrofluorosilicic acid (25% or less)	KRS	Kerosene
HFX	Hydrogen fluoride	LAC	Lead acetate
HMD	Hexamethylenediamine	LAH	Lithium aluminum hydride
HMI	Hexamethylenimine	LAL	Linear alcohols
HMT	Hexamethylenetetramine	LAR	Lead arsenate
HPA	Hydroxypropyl acrylate	LBC	Lithium bichromate
HPE	Heptyl acetate	LCL	Lead chloride
HPM	Hydroxypropyl methacrylate	LCR	Lithium chromate
HPO	Hydrogen peroxide	LFB	Lead fluoroborate
HPT	Heptane	LFR	Lead fluoride
HSS	Hexadecyl sulfate, sodium salt	LHD	Lithium hydride
HTC	Heptachlor	LID	Lead iodide
HTE	1-Heptene	LLS	Latex, liquid synthetic
HTN	Heptanol	LNG	Liquefied natural gas
HXA	n-Hexane	LNI	Lactonitrile solution (80% or less)
HXE	1-Hexene	LNT	Lead nitrate
HXG	Hexylene glycol	LPG	Liquefied petroleum gas
HXN	1-Hexanol	LPO	Lauroyl peroxide
HXO	Hexanoic acid	LRA	Lauric acid
HXX	Hydrogen	LRM	Lauryl mercaptan
IAA	Isoamyl alcohol	LSA	Lead stearate
IAC	Isopropyl acetate	LSF	Lead sulfite
IAI	Isodecyl acrylate	LSU	Lead sulfide
IAL	Isobutyl alcohol	LTA	Lactic acid
IAM	Isobutylamine	LTC	Lead thiocyanate
IAT	Isoamylacetate	LTH	Litharge
IBA	Isobutyl acetate	LTM	Lithium
IBL	Isobutylene	LTS	Lead thiosulfate
IBN	Isobutyronitrile	LTT	Lead tetraacetate
IBR	Isobutyric acid	LTU	Lead tungstate
IBT	Isobutane	MAA	Methyl amyl alcohol
IDA	Isodecaldehyde	MAC	Methyl amyl acetate
IGE	Isopropyl glycidyl ether	MAD	Methacrylic acid
IHA	Isohexane	MAE	Methyl acetoacetate
IOA	Isooctyl alcohol	MAK	Methylamyl ketone

MAL	Methyl alcohol	MLI	Maleic acid
MAM	Methyl acrylate	MLL	Methyl allyl alcohol
MAN	N-methylaniline	MLP	3-Methylpyridine
MAP	Methyl acetylene, propadiene mixture	MLT	Malathion
MAT	Mercuric acetate	MMC	Methyl mercaptan
MBA	a-Methylbenzyl alcohol	MME	Monomethyl ethanolamine
MBE	Methyl tert-butyl ether	MMM	Methyl methacrylate
MBK	Methyl n-butyl ketone	MNA	1-Methylnaphthalene
MBL	Methyl butenol	MNS	Mineral spirits
MBO	3-Methyl-2-butanone	MNT	Mercuric nitrate
MBU	Methyl butyrate	MOA	3-Methoxybutyl acetate
MBY	Methyl butynol	MOC	Methoxychlor
MBZ	Methyl benzoate	MOX	Mercuric oxide
MCA	Chloroacetic acid	MPA	Monoisopropanolamine
MCC	Mercuric ammonium chloride	MPC	Magnesium perchlorate
MCD	Mercaptodimethur	MPD	Methyl phosphonothioic dichloride
MCF	Chlorodifluoromethane	MPE	2-Methyl-1-pentene
MCK	Methylcyclopentadiene dimer	MPF	4-Methylpyridine
MCL	Methallyl chloride	MPK	Methyl isopropenyl ketone
MCM	Monochlorotrifluoromethane	MPL	Morpholine
MCN	Mercuric cyanide	MPR	2-Methylpyridine
MCO	Metolachlor	MPT	Methyl parathion
MCP	Methyl cyclopentane	MPY	1-Methylpyrrolidone
MCR	Mercury	MRC	Mercuric chloride
MCS	Methyldichlorosilane	MRE	Myrcene
MCT	Methylcyclopentadienylmanganese tricarbonyl	MRN	Mercurous nitrate
MCX	o-Methylcyclohexanone	MRR	Mercurous chloride
MCY	Methylcyclohexane	MRS	Mercuric sulfate
MDC	Methyl dichloroacetate	MRT	Mercuric thiocyanate
MDE	Methyl diethanolamine	MRX	Mirex
MEA	Monoethanolamine	MSA	Methanearsonic acid, sodium salt
MED	Methyl chloroacetate	MSF	Mercuric sulfide
MEK	Methyl ethyl ketone	MSO	Mesityl oxide
MEN	2-Methyl-6-ethyl aniline	MSR	alpha-Methylstyrene
MEP	Methylethylpyridine	MSZ	Methylamine solution
MES	Methyl salicylate	MTA	Methylamine
MET	Methacrylonitrile	MTB	Methyl bromide
MFA	Lead alkyls	MTC	Methyl chloride
MFM	Methyl formate	MTE	Monochlorotetrafluoroethane
MGN	Magnesium nitrate	MTF	Methyl formal
MGX	Magnesium	MTH	Methane
MHB	2-Methyl-2-hydroxy-3-butyne	MTN	4-Methyl-1-pentene
MHC	Methyl chloroformate	MTO	Molybdc trioxide
MHK	Methyl heptyl ketone	MTS	Methyltrichlorosilane
MHX	2-Methylcyclohexanol	MTT	Methyl acetate
MHZ	Methylhydrazine	MVK	Methyl vinyl ketone
MIC	Methyl isobutyl carbinol	NAA	Nitrilotriacetic acid and salts
MID	Mercuric iodide	NAB	Nabam
MIK	Methyl isobutyl ketone	NAC	Nitric acid
MIO	Methyl iodide	NAE	Nonyl acetate
MIS	Methyl isocyanate	NAL	4-Nitroaniline
MIT	Methyl isothiocyanate	NAN	Nonane
MKE	Methyl propyl ketone	NAO	1-Naphthylamine
MLA	Maleic anhydride	NAS	Nickel ammonium sulfate
MLH	Maleic hydrazide	NBR	Nickel bromide
		NCL	Nickel chloride

NCN	Nickel cyanide	OET	Octyl epoxy tallate
NCS	Nicotine sulfate	OFR	Oils, fuel: 4
NCT	Naphtha: coal tar	OFS	Oils, edible: fish
NEA	Neodecanoic acid	OFV	Oils, fuel: 5
NFB	Nickel fluoroborate	OIL	Oils: crude
NFM	Nickel formate	OLA	Oleic acid
NHX	Neohexane	OLB	Oils, miscellaneous: lubricating
NIC	Nicotine	OLD	Oils, edible: lard
NIE	o-Nitrotoluene	OLM	Oleum
NIP	3-Nitrophenol	OLS	Oils, miscellaneous: linseed
NKA	Nickel acetate	OMN	Oils, miscellaneous: mineral
NKC	Nickel carbonyl	OMS	Oils, miscellaneous: mineral seal
NKH	Nickel hydroxide	OMT	Oils, miscellaneous: motor
NKS	Nickel sulfate	ONF	Oils, miscellaneous: neatsfoot
NLD	Naled	OOD	Oils, fuel: 1-D
NMT	Nitromethane	OOL	Oils, edible: olive
NNE	1-Nonene	OON	Oils, fuel: no. 1
NNN	Nonanol	OPI	Oil, misc: pine
NNP	Nonylphenol	OPM	Oils, edible: palm
NNT	Nickel nitrate	OPN	Oils, edible: peanut
NON	Nonene	OPT	Oils, miscellaneous: penetrating
NOX	Nitrogen tetroxide	ORD	Oils, miscellaneous: road
NPH	4-Nitrophenol	ORG	Oils, miscellaneous: range
NPN	1-Nitropropane	ORN	Oils, miscellaneous: rosin
NPP	2-Nitropropane	ORS	Oils, miscellaneous: resin
NSS	Naphtha: stoddard solvent	OSB	Oils, edible: soya bean
NSV	Naphtha: solvent	OSD	Oils, miscellaneous: spindle
NTA	2-Nitroaniline	OSF	Oils, edible: safflower
NTB	Nitrobenzene	OSP	Oils, miscellaneous: sperm
NTC	Nitrosyl chloride	OSX	Oils, fuel: no. 6
NTE	Nitroethane	OSY	Oils, miscellaneous: spray
NTI	Naphthenic acids	OTA	Octanol
NTL	Nitralin	OTB	Oils, miscellaneous: turbine
NTM	Naphthalene	OTC	Oils, edible: tucum
NTO	Nitrous oxide	OTD	Oils, fuel: 2-D
NTP	2-Nitrophenol	OTE	1-Octene
NTR	m-Nitrotoluene	OTF	Oils, miscellaneous: transformer
NTT	p-Nitrotoluene	OTL	Oils, miscellaneous: tall
NTX	Nitric oxide	OTN	Oils, miscellaneous: tanner's
NVM	Naphtha: VM & P	OTW	Oils, fuel: 2
NXX	Nitrogen	OVG	Oils, edible: vegetable
OAA	Octanoic acid	OXA	Oxalic acid
OAC	Oleic acid, sodium salt	OXY	Oxygen
OAL	Octyl aldehydes	PAA	Peracetic acid
OAN	Octane	PAC	Phosphoric acid
OAP	Oleic acid, potassium salt	PAD	Propionaldehyde
OAS	Oils, miscellaneous: absorption	PAH	Propionic anhydride
OCA	Oils, edible: castor	PAL	n-Propyl alcohol
OCC	Oils, edible: coconut	PAM	2-Propanolamine
OCF	Oils: clarified	PAN	Phthalic anhydride
OCN	Oil, misc: cashew nut shell	PAS	Potassium arsenate
OCR	Oils, miscellaneous: croton	PAT	n-Propyl acetate
OCS	Oils, edible: cottonseed	PBO	Potassium binoxalate
OCT	Oils, miscellaneous: coal tar	PBP	Propylene butylene polymer
ODP	Octyl decyl phthalate	PBR	Phosphorus tribromide
ODS	Oils: diesel	PBZ	n-Propylbenzene

PCB	Polychlorinated biphenyl	PPT	Phosphorus trichloride
PCE	Pentachloroethane	PPW	Phosphorus, white
PCH	Potassium chromate	PPZ	Piperazine
PCL	Perchloric acid	PRA	n-Propylamine
PCM	Perchloromethyl mercaptan	PRC	n-Propyl chloride
PCN	Propionitrile	PRD	Pyridine
PCP	Pentachlorophenol	PRE	n-Propyl ether
PCR	Potassium chlorate	PRG	Propargite
PDC	Pentadecanol	PRO	Propargyl alcohol
PDE	1,3-Pentadiene	PRP	Propane
PDH	Paraldehyde	PRR	Pyrethrins
PDL	Phenyldichloroarsine	PTA	Pentane
PDN	1,4-Pentadiene	PTB	Pentaborane
PDT	Potassium dichloro-s-triazinetrione	PTC	Potassium cyanide
PEB	Polyethylene polyamines	PTD	Potassium dichromate
PEN	Pentaethylenehexamine	PTE	1-Pentene
PET	Pentaerythritol	PTH	Potassium hydroxide
PFA	Paraformaldehyde	PTI	Potassium iodide
PGA	Pyrogalllic acid	PTL	Petrolatum
PGC	Polypropylene glycol	PTM	Potassium
PGM	Polypropylene glycol methyl ether	PTN	Petroleum naphtha
PGN	Propylene glycol methyl ether acetate	PTO	Parathion
PGY	Propylene glycol ethyl ether	PTP	Potassium permanganate
PHD	Phosdrin	PTR	Propylene trimer
PHE	Phenylhydrazine	PTS	Potassium oxalate
PHG	Phosgene	PTT	Propylene tetramer
PHH	Phenylhydrazine hydrochloride	PXE	1-Phenyl-1-xylyl ethane
PHN	Phenol	PXP	n-Propoxypropanol
PII	Propyleneimine	QNL	Quinoline
PIN	Pinene	RSC	Resorcinol
PLA	n-Propanolamine	SAB	Sodium alkylbenzenesulfonates
PLB	Polybutene	SAC	Sulfuric acid, spent
PLP	Polypropylene	SAL	Salicylaldehyde
PLT	beta-Propiolactone	SAM	Sodium amide
PMA	Phenylmercuric acetate	SAR	Sodium arsenite
PME	Propylene glycol methyl ether	SAS	Sodium alkyl sulfates
PMN	n-Propyl mercaptan	SAT	Sodium fluoroacetate
PNA	Propionic acid	SAU	Sodium aluminate solution (45% or less)
PNE	2-Pentanone	SAZ	Sodium azide
PNI	n-Propyl nitrate	SBF	Sodium bifluoride
PNR	Potassium nitrate	SBH	Sodium borohydride
POA	Potassium arsenite	SBS	Sodium bisulfite
POC	Pentanoic acid	SBT	Sorbitol
POE	Potassium oleate	SBX	Sodium hydroxide solution
POP	Potassium peroxide	SCD	Sodium cacodylate
POX	Propylene oxide	SCH	Sodium chromate
PPA	Polyphosphoric acid	SCL	Sulfuryl chloride
PPB	Phosphorus, black	SCM	Strontium chromate
PPD	Propanedinitrile	SCN	Sodium cyanide
PPE	n-Pentyl propionate	SCR	Sodium dichromate
PPG	Propylene glycol	SCY	Sodium thiocyanate
PPI	Polymethylene polyphenyl isocyanate	SDA	Sodium arsenate
PPL	Propylene	SDB	Sodium borate
PPO	Phosphorus oxychloride	SDC	Sodium chlorate
PPP	Phosphorus pentasulfide	SDD	Sodium chlorate solution
PPR	Phosphorus, red	SDF	Sodium fluoride

SDH	Sodium hydride	TCB	1,2,4-Trichlorobenzene
SDN	Sodium nitrate	TCE	Trichloroethane
SDS	Sodium sulfide	TCF	Trichlorofluoromethane
SDT	Sodium dichloro-s-triazinetriene	TCH	Trichloroacetaldehyde
SDU	Sodium	TCL	Trichloroethylene
SFA	Sulfuric acid	TCM	1,1,2-Trichloroethane
SFC	Sodium ferrocyanide	TCN	1,2,3-Trichloropropane
SFD	Sulfur dioxide	TCO	Tricresyl phosphate ( $\geq$ 1% ortho isomer)
SFL	Sulfolane	TCP	Tricresyl phosphate (<1% ortho isomer)
SFM	Sulfur monochloride	TCS	Trichlorosilane
SFR	Sodium silicofluoride	TCT	Trichloro-s-triazinetriene
SHC	Sodium hypochlorite	TDA	Toluenediamine
SHD	Sodium hydroxide	TDB	Tetradecylbenzene
SHP	Sodium hypochlorite solution	TDC	1-Tridecene
SHR	Sodium hydrosulfide solution	TDI	Toluene 2,4-diisocyanate
SHX	Sodium hydrogen sulfite solution (35% or less)	TDN	Tridecanol
SLA	Salicylic acid	TEA	Triethanolamine
SLD	Selenium dioxide	TEB	Triethylbenzene
SMB	Sodium 2-mercaptobenzothiazol solution	TEC	Tetrachloroethane
SML	Sodium methylate	TED	Tetraethyl dithiopyrophosphate
SNI	Sodium nitrite solution	TEG	Triethylene glycol
SNT	Sodium nitrite	TEL	Tetraethyl lead
SOX	Sodium oxalate	TEN	Triethylamine
SPC	Sodium pentachlorophenate	TEP	Tetraethyl pyrophosphate
SPH	Sodium phosphate, tribasic	TES	2,4,5-T esters
SPP	Sodium phosphate	TET	Triethylenetetramine
SRA	Stearic acid	TFA	Tallow fatty alcohol
SRS	Sucrose	TFC	Trifluorochloroethylene
SSC	Sodium silicate	TFE	Tetrafluoroethylene
SSE	Sodium selenite	TFR	Trifluralin
SSF	Sodium sulfite	TGC	Tripropylene glycol
STC	Silicon tetrachloride	TGD	Triethylene glycol di-(2-ethylbutyrate)
STF	Stannous flouride	TGE	Triethylene glycol ethyl ether
STN	Strontium nitrate	TGM	Tripropylene glycol methyl ether
STO	Selenium trioxide	TGY	Triethylene glycol methyl ether
STR	Strychnine	THA	Trimethyl hexamethylene diamine
STS	Sodium thiocyanate solution (56% or less)	THB	Thallium carbonate
STY	Styrene	THC	Thiocarbamide
SVA	Silver acetate	THF	Tetrahydrofuran
SVC	Silver carbonate	THI	Trimethylhexamethylene diisocyanate
SVF	Silver fluoride	THN	Tetrahydronaphthalene
SVI	Silver iodate	THR	Thiram
SVN	Silver nitrate	TIA	Triisobutylaluminum
SVO	Silver oxide	TIB	Triisobutylene
SVS	Silver sulfate	TIP	Triisopropanolamine
SXX	Sulfur	TLA	Thallium acetate
TAA	Trimethylacetic acid	TLI	o-Toluidine
TAL	Triethylaluminum	TLO	Tallow
TAP	p-Toluenesulfonic acid	TMA	Trimethylamine
TAS	2,4,5-Trichlorophenoxyacetic acid, sodium salt	TMC	Trimethylchlorosilane
TBP	Tributyl phosphate	TME	1,2,4-Trimethylbenzene
TBT	Tetrabutyl titanate	TML	Tetramethyl lead
TBZ	1,2,3-Trichlorobenzene	TMP	1-Isobutyrate
TCA	2,4,5-Trichlorophenoxyacetic acid	TNA	Tannic acid
		TNI	Thallium nitrate
		TNM	Tetranitromethane



TOD	p-Toluidine	VTS	Vinyltrichlorosilane
TOF	Tall oil, fatty acid	WCA	Waxes: carnauba
TOI	m-Toluidine	WPF	Waxes: paraffin
TOL	Toluene	WSL	White spirit (low (15-20%) aromatic)
TPA	2-(2,4,5-Trichlorophenoxy) propanoic acid	XLM	m-Xylene
TPE	Isooctyl ester	XLO	o-Xylene
TPG	Thiophosgene	XLP	p-Xylene
TPH	Trichlorophenol	XYL	Xylenol
TPI	Triethyl phosphite	ZAC	Zinc ammonium chloride
TPO	Tris(Aziridinyl)phosphine oxide	ZAR	Zinc arsenate
TPP	Trimethyl phosphite	ZBC	Zinc bichromate
TPS	Triethyl phosphate	ZBO	Zinc borate
TPT	Turpentine	ZBR	Zinc bromide
TRB	Tridecylbenzene	ZCA	Zirconium acetate
TRC	Trichlorfon	ZCB	Zinc carbonate
TRD	Tridecane	ZCL	Zinc chloride
TRL	Tripropylamine	ZCN	Zinc cyanide
TRN	Thorium nitrate	ZCO	Zirconium oxychloride
TRP	Trixylenyl phosphate	ZCR	Zinc chromate
TSU	Thallium sulfate	ZCS	Zirconium sulfate
TTB	1,2,3,5-Tetramethylbenzene	ZCT	Zirconium tetrachloride
TTD	1-Tetradecene	ZDP	Zinc dialkyldithiophosphate
TTE	Tetrachloroethylene	ZEC	Zectran
TTF	1,1,2-Trichloro-1,2,2-trifluoroethane	ZFB	Zinc fluoroborate
TTG	Tetraethylene glycol	ZFM	Zinc formate
TTN	Tetradecanol	ZFX	Zinc fluoride
TTP	Tetraethylenepentamine	ZHS	Zinc hydrosulfite
TTT	Titanium tetrachloride	ZIR	Zirconium nitrate
TXP	Toxaphene	ZNA	Zinc acetate
UAN	Uranyl nitrate	ZNT	Zinc nitrate
UAS	Urea, ammonium nitrate soln (w/aqua ammonia)	ZPC	Zinc potassium chromate
UDA	Undecanoic acid	ZPF	Zirconium potassium flouride
UDB	n-Undecylbenzene	ZPP	Zinc phosphide
UDC	1-Undecene	ZPS	Zinc phenolsulfonate
UND	Undecanol	ZSF	Zinc sulfate
UPO	Urea peroxide	ZSL	Zinc silicofluoride
URA	Uranyl acetate		
URE	Urea		
URP	Uranium peroxide		
URS	Uranyl sulfate		
VAL	Valeraldehyde		
VAM	Vinyl acetate		
VBL	Vanillan black liquor		
VCH	Vinylcyclohexene		
VCI	Vinylidene chloride		
VCM	Vinyl chloride		
VEE	Vinyl ethyl ether		
VFI	Vinyl fluoride		
VME	Vinyl methyl ether		
VND	Vinyl neodecanoate		
VNO	Vanadium oxide		
VNT	Vinyl toluene		
VOT	Vanadium oxytrichloride		
VOX	Vanadium pentoxide		
VSF	Vanadyl sulfate		

## 10. DATA SOURCES

The source of every item of data contained in section 11 is recorded in master data files and is available on request. The principal sources are listed below. Many other sources were consulted, but most of them provided only a few items and are not given here. In a few cases the information given is based on an analogy with that for a closely related chemical; the analogy was drawn by an expert in the field, whose identity appears in the master data files.

Where a source was used for a single category of data, the source is given in Section 3 ("Explanation of Terms") and is not repeated here.

### 10.1 GENERAL SOURCES

The following sources contained data for many of the 13 data categories used:

1. Manufacturers' Technical Bulletins - This is usually the best single source of general information about the chemical. The bulletins contain the most recent data. Bulletins were not available for a few chemicals that are not items of commerce but are intermediates shipped from one manufacturing site to another.
2. Material Safety Data Sheets - These were provided by the manufacturer using the U.S. Department of Labor Form OSHA-20 or an approved modification.
3. Code of Federal Regulations - Office of the Federal Register, Archives and Record Service, Washington, D.C., 1972. Titles 46 (Shipping) and 49 (Transportation) were used in the most recent revision available, October 1, 1996.
4. Chemical Safety Data Sheets - Chemical Manufacturers Association, Washington, D.C.
5. Industrial Safety Sheets - National Safety Council, Chicago, Illinois.
6. International Maritime Dangerous Goods Code - International Maritime Organization (IMO), London, January 1, 1990.
7. Petroleum Products Handbook - V.B. Guthrie (ed.), McGraw-Hill, New York, 1960.
8. Glossary of Terms Used in Petroleum Refining - 2nd edition, American Petroleum Institute, New York, 1962.
9. The Handling and Storage of Liquid Propellants - Office of Defense Research and Engineering, U.S. Government Printing Office, Washington, D. C., 1963.
10. Industrial Chemicals - W.L. Faith, D.B. Keyes, and R.L. Clark, 3rd edition, Wiley, New York, 1965.
11. Chemical Technology of Petroleum - W.A. Gruse and D.R. Stevens, 3rd edition, McGraw-Hill, New York, 1960.
12. Chemical Rocket/Propellant Hazards - CPIA Publication No. 194, Vol. III, 1970.
13. Organic Solvents - J.A. Riddick and W.B. Bunger, 3rd edition, Wiley-Interscience, New York, 1970.
14. Transport of Dangerous Goods - (4 vols) United Nations, New York, 1981.

15. Kirk-Othmer Encyclopedia of Chemical Technology - 1st edition (1947 - 1960) and 2nd edition (1963 - 1970), Interscience-Wiley, New York.

16. Matheson Gas Data Book - 5th edition, Matheson Gas Products, East Rutherford, New Jersey, 1971.

17. Explosive and Toxic Hazardous Material - J.H. Meidl, Glencoe Press, Beverly Hills, California, 1969.

18. Dangerous Properties of Industrial Materials, 7th edition, N.I. Sax, Van Nostrand Reinhold Company, New York, 1989.

19. Organic Phosphorus Compounds - G.M. Kosolapoff and L. Maier (6 Vols.), Wiley-Interscience, New York.

20. The Chemistry of Organo-Phosphorus Pesticides - C. Fest and K.J. Schmidt, Springer-Verlag, New York, 1973.

## **10.2 CHEMICAL DESIGNATIONS**

1. Commercial Organic Chemical Names - Compiled by the Synthetic Organic Chemical Manufacturers Association (SOCMA), Chemical Abstracts Service, Columbus, Ohio, 1965.

2. Chemical Synonyms and Trade Names - W. Gardner and E.I. Cooke, 7th edition, CRC Press, Cleveland, Ohio, 1971.

3. The Merck Index of Chemical and Drugs - 11th edition, Merck and Co., Rahway, New Jersey, 1989.

## **10.3 HEALTH HAZARDS**

1. Industrial Hygiene and Toxicology - F.A. Patty, 3rd edition, Vol. II, Interscience, New York, 1981.

2. Toxicity and Metabolism of Industrial Solvents - E. Browning, Elsevier, New York, 1965.

3. Practical Toxicology of Plastics - R. Lefaux, CRC Press, Cleveland, Ohio, 1968.

4. Industrial Toxicology - L.T. Fairhall, Williams and Wilkins, 2nd edition, Baltimore, Maryland, 1957.

5. Toxicology of Drugs Chemicals - W.B. Deichman and H.W. Girarde, Academic Press, New York, 1969.

6. Clinical Toxicology of Commercial Products - M.N. Gleason, et al., 4th edition, Williams and Wilkins, Baltimore, Maryland, 1981.

7. Handbook of Toxicology: Acute Toxicities of Solids, Liquids and Gases to Laboratory Animals - W.S. Spector, Saunders, Philadelphia, Pa., 1956.

8. Occupational Diseases: A Guide to their Recognition - U.S. Department of Health, Education, and Welfare. Public Health Service Publication No. 1097. Superintendent of Documents, Washington, D.C., 1964.

9. First Aid Textbook - American National Red Cross, Washington, D.C., 1972.
10. Electrical Safety Practice: Odor Warning for Safety - Monograph 113 Instrument Society of America (ISA), Pittsburgh, Pa., 1972.
11. Toxic Substances - Annual List 1971 - H.E. Christensen, U.S. Department of Health, Education, and Welfare, Superintendent of Documents, Washington, D.C., 1971.
12. Hygienic Guide Series - American Industrial Hygiene Association, Detroit, Michigan, 48227.
13. Toxicity of Industrial Metals - E. Browning, 2nd Edition, Appleton-Century-Crofts, New York, 1969.

#### **10.4 FIRE HAZARDS**

1. The Fire and Explosion Hazards of Commercial Oils - W. Vlachos and C.A. Vlachos, Vlachos and Co., Philadelphia, Pa., 1921.
2. 1972 Annual Book of ASTM Standards - American Society for Testing and Materials, Philadelphia, Pa., 1972.
3. Fire Protection Guide on Hazardous Materials - 10th edition, Nos. 325A, 325M, 49, 491M, and 704M, National Fire Protection Association (NFPA), Boston, Mass., 1991.
4. Fire Protection Handbook - A. E. Cote (ed.), 17th edition, National Fire Protection Association (NFPA), Boston, Mass., 1991.
5. Handbook of Industrial Loss Prevention - 2nd edition, Factory Mutual Engineering Corp., McGraw-Hill, New York, 1967.

#### **10.5 WATER POLLUTION**

1. Water Quality Criteria Data Book - Vol. 1 - Organic Chemicals (1970) and Vol. 2 - Inorganic Chemicals (1971), United States Environmental Protection Administration, Superintendent of Documents, Washington, D.C.
2. Engineering Management of Water Quality - P.H. McGauhey, McGraw-Hill, New York, 1968.
3. The BOD of Textile Chemicals - Proceedings of the American Association of Textile Chemists and Colorists, American Dyestuff Reporter, August 29, 1966, p. 39.
4. Biodegradable Surfactants for the Textile Industry - American Dyestuff Reporter, January 30, 1967.
5. Water Quality Criteria - J.E. McKee and M.W. Wolf, 2nd edition, California State Water Quality Control Board, Sacramento, California, 1963.
6. Water Quality Criteria - National Technical Advisory Committee, Federal Water Pollution Control Administration, Washington, D.C. 1968.
7. Water Quality Characteristics of Hazardous Materials - R.W. Hann, Jr., and P.A. Jensen, Environmental Engineering Division, Texas A and M University, College Station, Texas, 1974.

## 10.6 PHYSICAL AND CHEMICAL PROPERTIES

1. Solubilities of Inorganic and Organic Compounds - H. Stephen and T. Stephen, Macmillan, New York, 1963, Vol. 1, Part 1.
2. The Critical Constants of Organic Compounds - A.P. Kudchadker, G.H. Alani and B.J. Zwolinski, Chemical Reviews, 68,659 (1968).
3. Physical Properties of Hydrocarbons - Vol. 1 (1968) and Vol. 2 (1970), R.W. Gallant, Gulf Publishing Co., Houston, Texas.
4. International Critical Tables - McGraw-Hill, New York, 1926.
5. Handbook of Chemistry and Physics - R.C. Weast (ed.), 62nd edition, CRC Publishing Co., Cleveland, Ohio, 1982.
6. The Properties of Gases and Liquids - R.C. Reid and T.K. Sherwood, 2nd edition, McGraw-Hill, New York, 1966.
7. Thermal Conductivity of Gases and Liquids - N.V. Tsederburg, MIT Press, Cambridge, Mass., 1965.
8. Lange's Handbook of Chemistry - N.A. Lange, 12th edition, McGraw-Hill, New York, 1979.
9. The Chemical Thermodynamics of Organic Compounds - D.R. Stull, et al., Wiley, New York, 1969.
10. Matheson Gas Data Book - 4th edition, Matheson Co., Inc., 1966.
11. Physical Properties of Chemical Compounds - Vol. 1 (1955), Vol. 2 (1959), and Vol. 3 (1961), R.R. Dreisbach, American Chemical Society, Washington, D.C.
12. Beilsteins Handbuch der Organischen Chemie - Springer, Berlin, Germany.
13. Gmelins Handbuch der Anorganischen Chemie - Verlag Chemie, Weinheim, Germany.
14. Solubilities of Inorganic and Organic Compounds - 3rd edition and supplement, A. Seidell and W.F. Linke, Van Nostrand, New York, 1941 - 1952.
15. Selected Values of Physical and Thermodynamics Properties of Hydrocarbons and Related Compounds - F.D. Rossini, et.al., American Petroleum Institute Project 44, American Petroleum Institute, Pittsburgh, Pa., 1953.
16. Heat of Combustion and Formation of Organic Compounds - E.S. Domalski, Journal of Physical and Chemical Reference Data, 1,221 (1972).
17. Surface Tension of Pure Liquid Compounds - J.L. Jasper, J. Phys. Chem. Ref. Data, 1,841 (1972).
18. JANAF Thermochemical Tables - NSRDS - NBS - 37 (1970); 1974 Supplement and complete index, J. Phys. Chem. Ref. Data, 3,311 (1974).

19. Physical and Thermodynamic Properties of Aliphatic Alcohols - R.C. Wilhoit and B.J. Zwolinski, J. Phys. Chem. Ref. Data, 2 (1973), Supplement 1.
20. Critical Constants of Hydrocarbons - C.A. Passut and R.P. Danner, Ind. Eng. Chem., Pro. Des. Devel., 12,365 (1973).