

Hazard Communication Program

Responsible Administrator: Industrial
Hygiene Revised: November 2022

Summary: This section outlines the policy and procedures related to Hazard Communication that are administered through the Environmental Health & Safety (EH&S) Department.

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1. Program Description

1.1. The Cal/OSHA Hazard Communication Regulation, often called Hazcom, is designed to ensure that the hazards of workplace chemicals are evaluated and that information on the hazards is provided to employers and employees. Details of these regulations are provided in [CCR, Title 8, Section 5194](#). The Standard requires all employers to provide information to their employees about the hazardous chemicals to which they may be exposed, by means of a hazard communication program, labels and other forms of warning, safety data sheets, and information and training.

1.2. The HazCom program must include five main components:

- A written Hazard Communication Program
- An up-to-date inventory of hazardous chemicals in the workplace
- Accessibility of copies of Safety Data Sheets (SDS) for all hazardous chemicals in the workplace
- Proper labeling and other forms of warning for hazardous

- chemicals; and,
- Training for affected employees on the requirements of the Standard/Regulation.

1.3. This Hazard Communication Program applies to all University of California – Irvine (UCI) Departments, Offices, and Centers and their employees, faculty, and staff. It is intended to ensure that employees, faculty, and staff are made aware of and properly trained in the safe use of hazardous chemicals with which they may come in contact. This is accomplished by providing appropriate employee training, compiling chemical inventories, maintaining, and using Safety Data Sheets (SDS) and ensuring that chemical containers are properly labeled. The Program complies with the [Cal/OSHA Hazard Communication Regulation](#) (Title 8, Chapter 4, Subchapter 7, Group 16, Article 109, Section 5194) Additional requirements for laboratories as specified in Cal/OSHA Occupational Exposure to Hazardous Chemicals in Laboratories Standard (Title 8, Chapter 4, Subchapter 7, Group 16, Article 109, Section 5191) are covered in the UCI Chemical Hygiene Program.

UCI Departments, Offices, and Centers must also comply with any additional chemical- specific requirements of standards or regulations promulgated by Cal/OSHA (i.e. substance specific regulations).

2. Scope

2.1 The scope of this Program covers hazardous chemical use in all UCI workplaces. The list of hazardous chemicals subject to the regulations is in Appendix B of this program.

Non-Routine Tasks. Occasionally employees may be asked to perform tasks that are not part of their normal routine. Non-routine tasks may include annual cleaning or a one time application of a chemical.

Supervisors will provide staff asked to perform non-routine tasks involving the use of hazardous chemicals with information regarding associated hazards prior to starting the non-routine task. This information will also include measures to ensure protection from the hazards, and information regarding engineering and administrative controls or PPE that should be used. Non-routine tasks should not be undertaken until the employees and/or students involved understand the associated hazards and methods for protection.

3. Definitions

See Appendix B for a complete list of definitions. These definitions include those that may be needed when reviewing Safety Data Sheets (SDS).

4. Responsibilities

4.1 **Supervisors and Faculty** are responsible for:

- Overall compliance with HazCom requirements.
- Training employees regarding the site-specific use of hazardous chemicals and methods required to protect from related hazards,
- Informing employees of any new products and hazardous materials being considered for use in the department,
- Maintaining an adequate supply of approved personal protective equipment (PPE) for employee
- Ensuring that employees are trained on the appropriate use of PPE,
- Ensuring all employees have completed their safety training self-assessments (STSA) and have completed all required safety training (including the Hazard Communication course, if applicable) and any refresher training. Available training classes are found in the University of California Learning Center ([UCLC](#))

4.2 **Employees, and Staff** are responsible for:

- Reading, understanding, and following the safety information included on container labels and SDSs,
- Attending and participating in Safety Fundamentals and other required safety training,
- Labeling secondary containers appropriately,
- Developing an understanding of the Program,
- Reporting any incidents involving hazardous chemicals to their supervisor, and
- Wearing appropriate PPE.

4.3 **Contractors** working on UCI property are responsible for:

- Compliance with the Standard under their own written Hazard Communication Program.
- In addition, contractors must notify the appropriate UCI project manager of any hazardous chemicals they will use on property owned or occupied by UCI,
- Provide a copy of their written Hazcom Program upon request,
- Have onsite copies of SDSs for any hazardous chemicals they use on UCI property, and
- Immediately provide SDSs for these products upon request. In addition, all hazardous chemicals used on UCI property shall be properly labeled per Section 5.4 of this Program.

4.4 Environmental Health and Safety (EH&S) is responsible for:

- Preparing and maintaining this written Program,
- Conducting, facilitating, and/or reviewing and updating Safety Fundamentals and other related safety training as required,
- Assisting Department staff with the requirements of the Standard,
- Assisting in product selection or substitution, and
- Assisting in the selection of appropriate PPE as requested.

5. Program Components

5.1 Written HazCom Program

EH&S is responsible for the maintenance of this Hazard Communication Program. Copies of the HazCom Program may be obtained by contacting EH&S or by visiting the EH&S Written Programs website (Hazard Communication Program).

5.2 Hazardous Substance/Chemical Inventories

Chemical users are required to maintain a current chemical inventory that lists the chemicals and compressed gases used and stored in their areas and the quantity of these chemicals. Specific storage locations must be kept as part of the inventory list to ensure that they can be easily located. Chemical inventories are used to ensure compliance with storage limits and fire regulations and can be used in an emergency to identify potential hazards for emergency response operations. The chemical inventory list should be reviewed prior to ordering new chemicals and only the minimum quantities of chemicals necessary for the research should be purchased. As new chemicals are added to the inventory, each laboratory group must confirm that they have access to the Safety Data Sheet (SDS) for that chemical. Where practical, each chemical should be dated so that expired chemicals can be easily identified for disposal. It is advisable to inventory the materials frequently (at least annually) to avoid overcrowding with materials that are no longer useful and note the items that should be replaced, have deteriorated, or show container deterioration. Unneeded items should be considered for disposal, as well as compromised items should be discarded as chemical waste. Indications for disposal include:

- Cloudiness in liquids
- Color change
- Evidence of liquids in solids, or solids in liquids
- "Puddling" of material around outside of containers
- Pressure build-up within containers
- Obvious deterioration of containers

Access to hazardous chemicals, including toxic and corrosive substances, should be always controllable.

- 5.3 Chemical inventories for the University is be found in [UC Chemicals](#). Some chemical inventories are still found in the UCI Chemical Inventory, Biological, Radio-isotope Tracking System ([CiBR-Trac](#)). CiBR-Trac will be in use until all chemical inventories from the various users are migrated into UC Chemicals. Each department is responsible for maintaining an up-to-date inventory of hazardous chemicals present in their work areas. Supervisors are responsible for updating and maintaining the inventory as hazardous chemicals are added or removed, and reconciling (i.e. ensuring the physical inventory and the electronic inventory are the same) their inventory annually. Chemical inventories shall be made available upon request. EH&S can be consulted as needed for assistance with hazard reviews. **Safety Data Sheets**

The purpose of the Safety Data Sheet (SDS) is to describe the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first aid procedures, and control measures related to hazardous chemicals.

With the adoption of the Globally Harmonized System (GHS), SDS's will typically follow a 16-section format that contains information on:

- Product Identity
- Hazard(s) Identification
- Composition/Ingredients
- First-Aid Measures
- Fire-Fighting Measures
- Accidental Release
- Handling and Storage
- Exposure Controls/Personal Protection
- Physical and Chemical Properties
- Stability and Reactivity
- Toxicological Information
- Ecological Information
- Disposal Considerations
- Transport Information
- Regulatory Information
- Other Information

At UCI, SDS's may be accessed:

- Through the [EH&S website](https://ehs.uci.edu/sds/index.php) (<https://ehs.uci.edu/sds/index.php>);
- By emailing a request through the EH&S office (safety@uci.edu);
- By contacting the EH&S office at extension 4.4600.

5.3.1 The department supervisor is responsible for ensuring SDS's for each hazardous chemical in the department inventory is available for staff and students in the immediate work area. The supervisor will provide all SDSs for in-use or stored chemicals at each location. Staff and students may contact EH&S with any questions related to information provided on the SDS.

5.4 **Container Labeling**

Every chemical subject to this program must be properly labeled. Most chemicals come with a manufacturer's label that contains the necessary information, so care should be taken to not damage or remove these labels. Each chemical bottle, including diluted chemical solutions, must be labeled with its contents and the hazards associated with this chemical. The supervisor is responsible for ensuring incoming chemical containers and chemical containers within the current inventory are properly labeled. Labels must include the identity of the contents, appropriate hazard warnings (i.e. signal word, hazard statement[s], pictograms, precautionary statement[s]), and the manufacturer, importer, or responsible party information (i.e. name, address, and telephone number). Affixed labels must not be removed from any container until the container has been completely emptied.

It is recommended that each bottle also be dated when received and when opened to assist in determining which chemicals are expired and require disposal. Once the chemical has been received, it may be transferred to smaller secondary containers for use in the workplace. Supervisors are responsible for ensuring all secondary containers are labeled with the identity of the hazardous chemical, appropriate hazard warnings (as defined in the regulation), and the manufacturer, importer, or responsible party information (as defined by the regulation). UCI employees, faculty, and staff should report any unlabeled secondary containers to the responsible supervisor who will either label the container or, if the container contents are unknown, contact EH&S for assistance and/or disposal.

Chemical labeling should follow the Globally Harmonized System (GHS) of classification and labeling of chemicals. Appendix C contains the GHS pictograms used in labeling and hazard communication.

5.5 **Training.** Hazard communication training is provided to UCI employees working with hazardous chemicals subject to the HazCom regulation.

5.5.1 Hazard Communication modules are currently included in various training presentations available in University of California Learning Center (uclc.uci.edu).

5.5.2 Department Supervisors are responsible for training employees regarding the site-specific use of hazardous chemicals and methods required to protect from related hazards, and informing employees of any new products and hazardous materials being considered for use in the department, The work unit-specific training for employees is delivered prior to the employee's initial assignment or whenever employees will be using a new hazardous chemical including:

6. Reporting Requirements

N/A

7. References

- [OSHA Hazard Communication Standard \(29 CFR 1910.1200\)](#)
 - [Cal/OSHA Hazard Communication Regulation \(CCR Title 8, Section 5194\)](#)
 - [OSHA "Laboratory Standard" \(29 CFR 1910.1450\)](#)
 - [UCI Chemical Hygiene Plan](#)
 -
 - [UCI Asbestos Management Program](#)
 - [UCI Respiratory Protection Program](#)
 -
 - [UCI Hazardous Waste Management Program](#)
 - [OSHA "What is Hazard Communication?"](#)
 - [Hazardous Waste Satellite Accumulation Area \(SAA\)](#)
 - [Guide to the California Hazard Communication Regulation](#)
 - [U.S. Department of Health and Human Services National Toxicology Program: Report on Carcinogens](#)
- [NIOSH Pocket Guide to Chemical Hazards](#)

Appendix A: Hazardous Substances List*

<https://www.dir.ca.gov/title8/339.html>

* An SDS is not required for tapes, films, or extruded, molded or coated products containing listed hazardous substances in bound form except when these substances can be released in the workplace under normal conditions of work or in reasonably foreseeable emergencies resulting from workplace operations.

| CAS No. | Source | Substance | Footnotes |
|----------|---------|--|-----------|
| 26148685 | 1 | A-alpha-C (2-Amino-9H-pyrido[2,3-b]indole) | |
| 3688537 | 1 | AF-2 ([2-(2-Furyl)-3-(5-nitro-2-furyl)] acrylamide) | |
| 86884 | 3 | ANTU; see 1-(1-Naphthyl)-2-thiourea | |
| 83329 | 2 | Acenaphthene | |
| 75070 | 1,2,3 | Acetaldehyde | |
| 60355 | 1 | Acetamide | |
| 64197 | 2,3 | Acetic acid | 1 |
| 108247 | 2,3 | Acetic anhydride | |
| 67641 | 3 | Acetone | |
| 75865 | 2 | Acetone cyanohydrin | |
| 75058 | 3 | Acetonitrile | |
| 81812 | 3 | 3-(alpha-Acetylbenzyl)-4-hydroxycoumarin; see Warfarin | |
| 53963 | 3 | 2-Acetylaminofluorene | |
| 506967 | 2 | Acetyl bromide | |
| 79367 | 2 | Acetyl chloride | |
| 74862 | 3 | Acetylene | |
| 540590 | 2,3 | Acetylene dichloride | |
| 79276 | 3 | Acetylene tetrabromide | |
| 79345 | 1,3 | Acetylene tetrachloride | |
| 50782 | 3 | Acetylsalicylic acid | 37 |
| 107028 | 2,3,4 | Acrolein | |
| 79061 | 1,3 | Acrylamide | |
| 79107 | 3 | Acrylic acid | |
| 107131 | 1,2,3,4 | Acrylonitrile | |
| 50760 | 1 | Actinomycin D | |
| 124049 | 2 | Adpic acid | |
| 23214928 | 1 | Adriamycin | |
| | 1 | Aflatoxins | |
| 116063 | 4 | Aldicarb | |
| 51285 | 2 | Aldifen; see Dinitrophenols | |
| 309002 | 1,2,3,4 | Aldrin | |
| 107186 | 2,3,4 | Allyl alcohol | |
| 107051 | 2,3 | Allyl chloride | |
| 106923 | 3 | Allyl glycidyl ether | 12 |
| 57067 | 1 | Allyl isothiocyanate | |
| 2835394 | 1 | Allyl isovalerate | |

| | | | |
|----------|-----|--|----|
| 2179591 | 3 | Allyl propyl disulfide | |
| | 3 | Aluminum | 3 |
| | 3 | Aluminum, alkyls | |
| 7429905 | 3 | Aluminum metal and oxide | |
| 20859738 | 4 | Aluminum phosphide | |
| | 3 | Aluminum pyro powders | |
| | 3 | Aluminum, soluble salts | 2 |
| 10043013 | 2 | Aluminum sulfate; see Aluminum, soluble salts | |
| 117793 | 1 | 2-Aminoanthraquinone | |
| 60093 | 1 | para-Aminoazobenzene | |
| 97563 | 1 | o-Aminoazotoluene | |
| 1300738 | 3 | Aminodimethylbenzene; see Xylidine | |
| 92671 | 1,3 | 4-Aminodiphenyl | 31 |
| 75047 | 2 | Aminoethane; see Ethylamine | |
| 141435 | 3 | 2-Aminoethanol; see Ethanolamine | |
| 82280 | 1 | 1-Amino-2-methylantraquinone | |
| 91598 | 3 | 2-Aminonaphthalene; see beta-Naphthylamine | |
| 712685 | 1 | 2-Amino-5-(5-nitro-2- furyl)-1,3,4-thiadiazole | |
| 121664 | 1 | 2-Amino-5-nitrothiazole | |
| 504290 | 3 | 2-Aminopyridine | |
| 504245 | 4 | 4-Aminopyridine | |
| 1918021 | 4 | 4-Amino-3,5,6-trichloropicolinic acid; see Picloram | |
| 2432997 | 1 | 11-Aminoundecanoic acid | |
| 61825 | 1,3 | Amitrole | |
| 7773060 | 2 | Ammate; see Ammonium sulfamate | |
| 7664417 | 2,3 | Ammonia | |
| 631618 | 2 | Ammonium acetate | |
| 1863634 | 2 | Ammonium benzoate | |
| 1066337 | 2 | Ammonium bicarbonate | |
| 7789095 | 2 | Ammonium bichromate; see Chromium compounds | |
| 1341497 | 2 | Ammonium bifluoride; see Fluoride and inorganic fluoride compounds | |
| 10192300 | 2 | Ammonium bisulfite | |
| 1111780 | 2 | Ammonium carbamate | |
| 506876 | 2 | Ammonium carbonate | |
| 3012655 | 2 | Ammonium citrate dibasic | |
| 12125029 | 2,3 | Ammonium chloride fume | |
| 7788989 | 2 | Ammonium chromate; see Chromium compounds | |
| 13826830 | 2 | Ammonium fluoborate | |
| 12125018 | 2 | Ammonium fluoride; see Fluoride, and inorganic fluoride compounds | |
| 1336216 | 2 | Ammonium hydroxide | 29 |
| 6009707 | 2 | Ammonium oxalate | |
| 16919190 | 2 | Ammonium silicofluoride | |
| 7773060 | 2,3 | Ammonium sulfamate | |
| 12135761 | 2 | Ammonium sulfide | |
| 10196040 | 2 | Ammonium sulfite | |
| 3164292 | 2 | Ammonium tartrate | |
| 1762954 | 2 | Ammonium thiocyanate | |

628637, 123922, 2,3 Amyl acetate, all isomers
626380, 625161

1 Anabolic steroids
(Androgenic steroids)

62533 1,2,3 Aniline
90040 1,3 o-Anisidine
104949 3 p-Anisidine
191264 1 Anthanthrene
120127 2 Anthracene
7440360 2,3 Antimony 3
2,3 Antimony compounds 4
7647189 2 Antimony pentachloride;
see Antimony compounds
28300745 2 Antimony potassium tartrate;
see Antimony compounds
7789619 2 Antimony tribromide;
see Antimony compounds
10025919 2 Antimony trichloride;
see Antimony compounds
77883564 2 Antimony trifluoride;
see Antimony compounds
1309644 2 Antimony trioxide
140578 1 AramiteRegistered; see 2-(p-tert-
Butyphenoxy)isopropyl-2-
chloroethyl sulfite)

7440382 1,2,3,4 Arsenic and arsenic compounds 32
1303328 2 Arsenic disulfide;
see Arsenic and arsenic
compounds
1303282 1,2 Arsenic pentoxide; see
Arsenic and arsenic compounds
1327533 1,2 Arsenic trioxide; see
Arsenic and arsenic compounds
1303339 1,2 Arsenic trisulfide; see
Arsenic and arsenic compounds

784421 3 Arsine
1332214 1,2,3 Asbestos 5
8052424 3 Asphalt (petroleum) fumes 6
50782 3 Aspirin; see Acetylsalicylic acid
1912249 1,3,4 Atrazine
12174117 1 Attapulgate
492808 1 Auramine
12192573 1 Aurothioglucose
320672 1 5-Azacytidine
115026 1 Azaserine
446866 1 Azathioprine
86500 2,3,4 Azinphos methyl; see
O,O-Dimethyl S-(4-oxo-
benzotri-azino-3-methyl)
phosphorodithioate

151564 1 Aziridine; see Ethyleneimine
1072522 1 2-(1-Aziridiny)ethanol
800248 1 Aziridyl benzoquinone
103333 1 Azobenzene
3333526 3 2,2'-Azobisisobutyronitrile
decomposition product; see
Tetramethyl succinonitrile

| | | | |
|--------------------------|-------|---|----|
| 6923224 | 4 | Azodrin; see 3-(Dimethoxyphosphinyloxy)-N- methyl-cis-crotonamide | |
| 154938 | 1 | BCNU; see 1,3-bis (2-Chloroethyl)-1-nitrosourea | |
| 2426086 | 3 | BGE; see n-Butyl glycidyl ether | |
| 58899 | 2 | BHC; see Hexachlorocyclohexanes | |
| 319846 | 2 | alpha-BHC | |
| 319857 | 2 | beta-BHC | |
| 319869 | 2 | delta-BHC | |
| 58899 | 2 | gamma-BHC; see Lindane | |
| 86884 | 3 | Bantu; see 1-(1-Naphthyl)-2-thiourea | |
| 101279 | 2 | Barban | |
| | 2,3 | Barium, soluble compounds | 2 |
| 542621 | 2 | Barium cyanide; see Cyanides, inorganic salts | |
| 17804352 | 3 | Benomyl | |
| 25057890 | 4 | Bentazon | |
| 225514 | 1 | Benz[c]acridine | |
| 56553 | 1,2 | Benz [a]anthracene | |
| 56553 | 2 | 1,2-Benzanthracene; see Benz[a]anthracene | |
| 71432 | 1,2,3 | Benzene | |
| 108907 | 2,3 | Benzene chloride; see Chlorinated benzenes | |
| 123319 | 3 | 1,4-Benzenediol; see Hydroquinone | |
| 108463 | 2 | 1,3-Benzenediol; see Resorcinol | |
| 118741 | 1,4 | Benzene hexachloride; see Chlorinated benzenes | |
| 531851, 531862, 92875 | 1,2,3 | Benzidine (and its salts) | 31 |
| | 1 | Benzidine-based dyes | |
| 205992 | 1,2 | Benzo [b]fluoranthene | |
| 205823 | 1 | Benzo[i]fluoranthene | |
| 207089 | 1,2 | Benzo[k]fluoranthene | |
| 207089 | 2 | 11,12 Benzofluoranthene; see Benzo[k]fluoranthene | |
| 205992 | 2 | 3,4 Benzofluoranthene; see Benzo[b]fluoranthene | |
| 65850 | 2 | Benzoic Acid | 7 |
| 71432 | 3 | Benzol; see Benzene | |
| 100470 | 2 | Benzonitrile | |
| 191242 | 2 | 1,12-Benzoperylene | |
| 191242 | 2 | Benzo(ghi)perylene; see 1,12-Benzoperylene | |
| 50328 | 1,2 | Benzo [a]pyrene | |
| 91225 | 2 | Benzo(b)pyridine; see Quinoline | |
| 105113 | 1 | para-Benzoquinone dioxime | |
| 106514 | 3 | p-Benzoquinone; see Quinone | |
| 98077 | 1 | Benzotrichloride | |
| 98884 | 2 | Benzoyl chloride | |
| 94360 | 3 | Benzoyl peroxide | |
| 140114 | 1 | Benzyl acetate | |
| 100447 | 1,2,3 | Benzyl chloride | |
| 1694093 | 1 | Benzyl violet 4B | |
| 7440417 | 1,2,3 | Beryllium | 34 |
| 7787475 | 1,2 | Beryllium chloride; see | |

Beryllium compounds

1,2,3 Beryllium compounds

7787497 1,2 Beryllium fluoride; see
Beryllium compounds

7787555 2 Beryllium nitrate; see Beryllium
compounds

141662 4 Bidrin; see 3-Hydroxy-
N,N-dimethyl-cis-crotonamide
dimethyl phosphate

92524 3 Biphenyl

2168685 1 Bis(1-aziridinyl)morpholinophosphine
sulphide

111911 2 Bis(2-chloroethoxy) methane

111444 2,3 Bis(2-chloroethyl)ether; see
Chloroalkyl ethers

494031 1 N,N-Bis(2-chloroethyl)-2
-naphthylamine

154938 1 1,3-Bis(2-chloroethyl)-1 -nitrosoarea

154938 1 Bischloroethyl nitrosoarea;
see 1,3-Bis(2-chloroethyl)-
1-nitrosoarea

13483186 1 1,2-Bis(chloromethoxy)ethane

56894981 1 1,4-Bis(chloromethoxymethyl)benzene

542881 1,3 Bis(chloromethyl) ether

108601 1 Bis(2-chloro-1-methylethyl) ether

108601 2 Bis(2-chloroisopropyl) ether

115322 1,2 1,1-Bis-(p-chlorophenyl)-2,2,2-
trichloroethanol(dicofol)

137268 3 Bis-(dimethylthiocarbamoyl) disulfide

2238075 3 Bis(2,3-epoxypropyl)ether; see
Diglycidyl ether

117817 2 Bis(2-ethylhexyl) phthalate; see
Phthalate esters

1304821 3 Bismuth telluride; see
Tellurium compounds

11056067 1 Bleomycins

129179 1 Blue VRS

3 Borates, tetra, sodium salts 8

1303862 3 Boron oxide 8

10294334 3 Boron tribromide

7637072 3 Boron trifluoride

3844459 1 Brilliant Blue FCF

314409 3 Bromacil

7726956 3 Bromine

7789302 3 Bromine pentafluoride

74975 3 Bromochloromethane

75274 2 Bromodichloromethane

74964 3 Bromoethane; see Ethyl bromide

593602 3 Bromoethylene; see Vinyl bromide

75252 2,3 Bromoform

74839 3 Bromomethane; see Methyl bromide

101553 2 4-Bromophenyl phenyl ether

75638 3 Bromotrifluoromethane

1689845 4 Bromoxynil

106990 1,2,3 1,3-Butadiene

106978 3 Butane

55981 1 1,4-Butanediol dimethanesulfonate

(Busulfan)

109795 3 Butanethiol; see n-Butyl mercaptan
71363 3 Butanol; see Butyl alcohol
78933 3 2-Butanone
123739 2 2-Butenal propylene aldehyde; see
Crotonaldehyde
2426086 3 1-Butoxy-2,3-epoxypropane; see
n-Butyl glycidyl ether
111762 3 2-Butoxyethanol; see Ethylene
glycol monobutyl ether
123864, 105464, 2,3 Butyl acetate, all isomers
540885, 110190
141322 3 Butyl acrylate
71363, 78922, 3 Butyl alcohol
75650
109739, 78819, 2,3 Butylamine, all isomers
513495, 13952846,
75649
25013165 1 Butylated hydroxyanisole
128370 1 Butylated hydroxytoluene; see 2,6-Di-
tert-butyl-p-cresol
85687 2 Butyl benzyl phthalate
299865 3 4-tert-Butyl-2-chlorophenylmethyl
methylphosphoramidate
1189851 3 tert-Butyl chromate; see Chromium
compounds
2426086 3 n-Butyl glycidyl ether 12
138227 3 n-Butyl lactate
109795 3 n-Butyl mercaptan
89725 3 o-sec-Butylphenol
140578 1 2-(p-tert-Butylphenoxy)isopropyl-
2-chloroethyl sulfite
84742 2 n-Butyl phthalate; see Phthalate esters
98511 3 p-tert-Butyltoluene
107926 2 Butyric acid
3068880 1 beta-Butyrolactone
13010474 1 CCNU; see 1-(2-Chloroethyl)-3-
cyclohexyl-1-nitrosourea
543908 1,2 Cadmium acetate; see Cadmium
compounds
7440439,
1306190 1,2,3,4 Cadmium and cadmium oxide 3
7789426 2 Cadmium bromide; see Cadmium
compounds
10108642 1,2 Cadmium chloride; see Cadmium
compounds
1,2,3,4 Cadmium compounds
7440702 2 Calcium
7778441 1,2,3 Calcium arsenate; see Arsenic and arsenic
compounds
52740166 2 Calcium arsenite; see Arsenic and arsenic
compounds
75207 2 Calcium carbide
13765190 1,2 Calcium chromate; see Chromium
compounds
156627 3 Calcium cyanamide
592018 2,4 Calcium cyanide; see Cyanides, inorganic

| | | salts | |
|-----------|---------|--|----|
| 26264062 | 2 | Calcium dodecylbenzene-sulfonate | 9 |
| 1305620 | 3 | Calcium hydroxide | |
| 7778543 | 2 | Calcium hypochlorite | |
| 1305788 | 3 | Calcium oxide | |
| 76222 | 3 | Camphor | |
| 56257 | 1 | Cantharidin | |
| 105602 | 3 | Caprolactam | |
| 2425061 | 1,3 | Captafol | |
| 133062 | 1,2,3 | Captan | |
| 63252 | 2,3,4 | Carbaryl | |
| 86748 | 1 | Carbazole | |
| 7786347 | 2,3,4 | alpha-2-Carbomethoxy-1- methylvinyl dimethyl phosphate(mevinphos) | |
| 7786347 | 3 | 2-Carbomethoxy-l-propen-2-yl dimethyl phosphate; see alpha-2-Carbomethoxy-l-methylvinyl dimethyl phosphate | |
| 75150 | 2,4 | Carbon bisulfide; see Carbon disulfide | |
| 1333864 | 1,3 | Carbon black-Extracts | 10 |
| 124389 | 3 | Carbon dioxide | |
| 75150 | 2,3,4 | Carbon disulfide | |
| 630080 | 3 | Carbon monoxide | |
| 558134 | 3 | Carbon tetrabromide | |
| 56235 | 1,2,3,4 | Carbon tetrachloride | |
| 75445 | 2,3 | Carbonyl chloride; see Phosgene | |
| 353504 | 3 | Carbonyl Fluoride | |
| 786196 | 4 | Carbophenothion | |
| 154938 | 1 | Carmoisine; see 1,3-Bis(2-chloro-ethyl)-1-nitrosourea | |
| 120809 | 3 | Catechol | |
| 1310732 | 3 | Caustic soda; see Sodium hydroxide | |
| 110805 | 5 | Cellosolve; see Ethylene glycol mono-ethyl ether | |
| 21351791 | 3 | Cesium hydroxide | |
| 305033 | 1 | Chlorambucil | |
| 56757 | 1 | Chloramphenicol | |
| 57749 | 1,2,3,4 | Chlordane | |
| 143500 | 1,2 | Chlordecone | |
| 6164983 | 4 | Chlordimeform | |
| 115286 | 1 | Chlorendic acid | |
| 470906 | 4 | Chlorfenvinphos | |
| | 1,2,3 | Chlorinated benzenes | |
| 8001352 | 3 | Chlorinated camphene; see Toxaphene | |
| | 2 | Chlorinated cresols | |
| 55720995 | 3 | Chlorinated diphenyl oxide | |
| | 2 | Chlorinated ethanes | |
| | 2 | Chlorinated naphthalenes, (other than those listed elsewhere) | |
| 108171262 | 1 | Chlorinated paraffins | |
| | 2 | Chlorinated phenols; see Chlorinated cresols | |
| | 1 | a-Chlorinated toluenes | |
| 7782505 | 2,3 | Chlorine | |
| 10049044 | 3 | Chlorine dioxide | |
| 7790912 | 3 | Chlorine trifluoride | |
| 494031 | 1 | Chlornaphazine; see N,N-bis(2- | |

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| | | Chloroethyl)-2-naphthylamine |
| 107200 | 3 | Chloroacetaldehyde |
| 532274 | 3 | alpha-Chloroacetophenone |
| 79049 | 3 | Chloroacetyl chloride |
| | 1,2,3 | Chloroalkyl ethers |
| 108907 | 2,3 | Chlorobenzene; see Chlorinated benzenes |
| 510156 | 1 | Chlorobenzilate |
| 2698411 | 3 | o-Chlorobenzylidene-malononitrile |
| 74975 | 3 | Chlorobromomethane; see Bromochloromethane |
| 126998 | 3 | 2-Chloro-1,3-butadiene; see Chloroprene |
| 124481 | 2 | Chlorodibromomethane |
| 75456 | 1,3 | Chlorodifluoromethane (FC-22) |
| 53449219 | 3 | Chlorodiphenyl; see Polychlorobiphenyls |
| 106898 | 3 | 1-Chloro-2,3-epoxypropane; see Epichlorohydrin |
| 75003 | 2,3 | Chloroethane; see Ethyl chloride |
| 107073 | 3 | 2-Chloroethanol; see Ethylene chlorohydrin |
| 13010474 | 1 | 1-(2-Chloroethyl)-3-cyclohexyl-1- nitrosourea |
| 75014 | 3 | Chloroethylene; see Vinyl chloride |
| 13909096 | 1 | 1-(2-Chloroethyl)-3-(4-methylcyclo- hexyl)-1-nitrosourea (Methyl -CCNU) |
| 110758 | 2 | 2-Chloroethyl vinyl ether |
| 593704 | 1 | Chlorofluoromethane |
| 67663 | 1,2,3 | Chloroform |
| 75445 | 2 | Chloroformyl chloride; see Phosgene |
| 59507 | 2 | para-Chloro-meta-cresol |
| 74873 | 3 | Chloromethane; see Methyl chloride |
| 107302 | 3 | Chloromethyl methyl ether; see Methyl chloromethyl ether |
| 91587 | 2 | 2-Chloronaphthalene |
| 100005 | 3 | 1-Chloro-4-nitrobenzene; see p- Nitrochlorobenzene |
| 600259 | 3 | 1-Chloro-1-nitropropane |
| 76153 | 3 | Chloropentafluoroethane |
| 95578 | 2 | 2-Chlorophenol; see Chlorophenols |
| | 1 | Chlorophenols |
| | 1 | Chlorophenoxy herbicides |
| 95830 | 1 | 4-Chloro-o-phenylenediamine |
| 7005723 | 2 | 4-Chlorophenyl phenyl ether |
| 76062 | 3,4 | Chloropicrin |
| 126998 | 2,3 | Chloroprene |
| 1331288 | 3 | o-Chlorostyrene |
| 7790945 | 2 | Chlorosulfonic acid |
| 1897456 | 1 | Chlorothalonil |
| 95498 | 3 | o-Chlorotoluene |
| 100447 | 3 | alpha-Chlorotoluene; see Benzyl chloride |
| 95692 | 1 | p-Chloro-o-toluidine |
| 7745893 | 4 | 3-Chloro-p-toluidine hydrochloride |
| 1929824 | 3 | 2-Chloro-6-(trichloromethyl) pyridine |
| 75887 | 1 | 2-Chloro-1,1,1-trifluoroethane |
| 2921882 | 2,3 | Chlorpyrifos |

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|--------------------------------|-------|---|------|
| 1066304 | 2 | Chromic acetate; see Chromium compounds | |
| 11115745 | 2 | Chromic acid; see Chromium compounds | |
| 10101538 | 2 | Chromic sulfate; see Chromium compounds | |
| 7440473 | 2,3 | Chromium | 3 |
| | 1,2,3 | Chromium compounds | |
| 7440473 | 3 | Chromium metal; see Chromium | |
| 11115745 | 2 | Chromium trioxide; see Chromium compounds | |
| 10049055 | 2 | Chromous chloride; see Chromium compounds | |
| 14977618 | 3 | Chromyl chloride; | |
| 218019 | 1,2 | Chrysenes; see Polynuclear aromatic hydrocarbons | |
| 532821 | 1 | Chrysoidine | |
| 87296 | 1 | Cinnamyl anthranilate | |
| 108316 | 2,3 | Cis-butenedioic anhydride; see Maleic anhydride | |
| 15663271 | 1 | Cisplatin | |
| 51875 | 1 | Citrinin | |
| 6358538 | 1 | Citrus Red no. 2 | |
| 637070 | 1 | Clofibrate | |
| 1420048 | 4 | Clonitralid | |
| 2971906 | 3 | Clopidol | |
| | 3 | Coal (Bituminous) dust | |
| 65996932 | 1 | Coal-tar pitches | |
| 8007452 | 1,3 | Coal tar pitch volatiles | 11 |
| 7440484 | 2,3 | Cobalt | 3,34 |
| 10210681 | 3 | Cobalt carbonyl | |
| 16842038 | 3 | Cobalt hydrocarbonyl | |
| 7789437 | 2 | Cobaltous bromide | |
| 544183 | 2 | Cobaltous formate | |
| 14017415 | 2 | Cobaltous sulfamate | |
| 62748 | 4 | Compound 1080; see Sodium fluoroacetate | |
| 7440508 | 2,3 | Copper | 3 |
| | 2,3 | Copper compounds | 39 |
| | 3 | Cotton dust | 27 |
| 56724 | 2 | Coumaphos | |
| 91645 | 1 | Coumarin | |
| 8001589 | 1 | Creosotes | |
| 120718 | 1 | p-Cresidine | |
| 95487, 106445, 108394, 1319773 | 2,3 | Cresol (all isomers) | |
| 123739 | 2,3 | Crotonaldehyde | |
| 299865 | 3 | Crufomate; see 4-tert-Butyl (-2-chlorophenylmethyl) methylphosphoramidate | |
| 98828 | 3 | Cumene | |
| 142712 | 2 | Cupric acetate; see Copper compounds | |
| 12002038 | 2 | Cupric acetoarsenite; see Copper compounds | |
| 7447394 | 2 | Cupric chloride; see Copper compounds | |
| 3251238 | 2 | Cupric nitrate; see Copper compounds | |
| 5893663 | 2 | Cupric oxalate; see Copper compounds | |
| 10380297 | 2 | Cupric sulfate, ammoniated; see Copper | |

| | | compounds |
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| 7758987 | 2 | Cupric sulfate; see Copper compounds |
| 815827 | 2 | Cupric tartrate; see Copper compounds |
| 420042 | 3 | Cyanamide |
| | 2,3,4 | Cyanides, inorganic salts |
| 100470 | 2 | Cyanobenzene; see Benzonitrile |
| 460195 | 3 | Cyanogen |
| 506774 | 2,3 | Cyanogen chloride |
| 14901087 | 1 | Cycasin |
| | 1 | Cyclamates |
| 110827 | 2,3 | Cyclohexane |
| 108930 | 3 | Cyclohexanol |
| 108941 | 3 | Cyclohexanone |
| 110838 | 3 | Cyclohexene |
| 66819 | 4,5 | Cycloheximide |
| 108918 | 3 | Cyclohexylamine |
| 121824 | 3 | Cyclonite; see Cyclotrimethylenetrinitramine |
| 542927 | 3 | Cyclopentadiene |
| 12079651 | 3 | Cyclopentadienyltriacetyl manganese; see Manganese compounds |
| 287923 | 3 | Cyclopentane |
| 27208373 | 1 | Cyclopenta[c,d]pyrene |
| 50180 | 1 | Cyclophosphamide |
| 6055192 | | |
| 121824 | 3 | Cyclotrimethylene-trinitramine |
| 13121705 | 3 | Cyhexatin; see Tin compounds |
| 94757 | 2,3,4 | 2,4-D |
| 94111, 94791, 94804, 2 | 2 | 2,4-D esters (2,4-dichloro- phenoxyacetic acid esters) |
| 1320189, 1928387, 1928616, 1929733, 2971382, 25168267, 53467111 | | |
| 94826 | 4 | 2,4-DB (2,4-dichloro- phenoxybutyric acid) |
| 72548 | 2,4 | DDD; see TDE |
| 72548 | 2 | 4,4-DDD; see TDE |
| 72559 | 2 | DDE; see 1,1-Dichloro-2,2-bis(p- chlorophenyl)-ethylene |
| 72559 | 2 | 4,4-DDE; see 1,1-Dichloro-2,2-bis(p- chlorophenyl)-ethylene |
| 120365 | 4 | 2,4-DP (2,4-dichlorophenoxy-propionic acid) |
| 50293 | 1,2,3,4 | DDT-(1,1,1-trichloro-2,2-bis (p-chlorophenyl)ethane) |
| 50293 | 2 | 4,4-DDT; see DDT |
| 62737 | 3 | DDVP; see Dichlorvos |
| 78488 | 4 | DEF; see S,S,S Tributyl phosphorotrithioate |
| 2238075 | 3 | DGE; see Diglycidyl ether |
| 68122 | 3 | DMF; see N,N-Dimethylformamide |
| 57147 | 3 | DMH; see Dimethylhydrazine (all isomers) |
| 81889 | 1 | D&C Red No. 19; see Rhodamine B |
| 432034 | 1 | Dacarbazine |
| 80080 | 1 | Dapsone |

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| 115902 | 4 | Dasanit; see O,O-Diethyl O-[4-(methylsulfinyl) phenyl] phosphorothioate |
| 20830813 | 1 | Daunomycin |
| 17702419 | 3 | Decaborane |
| 8065483 | 3,4 | Demeton |
| 298033 | 2 | Demeton-O |
| 126750 | 2 | Demeton-S |
| 123422 | 3 | Diacetone alcohol; see 4-Hydroxy-4-methyl-2-pentanone |
| 613354 | 1 | N,N'-Diacetylbenzidine |
| 10311849 | 4 | Dialifor |
| 2303164 | 1 | Diallate |
| 615054 | 1 | 2,4-Diaminoanisole |
| 39156417 | 1 | 2,4-Diaminoanisole sulfate |
| 92875 | 3 | 4,4'-Diaminobiphenyl; see Benzidine (and its salts) |
| 91941 | 3 | 4,4'-Diamino-3,3'-dichlorobiphenyl; see Dichlorobenzidine and its salts |
| 101814 | 1 | 4,4'-Diaminodiphenyl ether |
| 107153 | 2,3 | 1,2-Diaminoethane; see Ethylenediamine |
| 95807 | 1 | 2,4-Diaminotoluene |
| 119904 | 1 | ortho-Dianisidine; see 3,3-Dimethoxybenzidine |
| 333415 | 2,3 | Diazinon |
| 334883 | 1,3 | Diazomethane |
| 226368 | 1 | Dibenz [a,h]acridine |
| 224420 | 1 | Dibenz [a,j]acridine |
| 53703 | 1,2 | Dibenz [a,h]anthracene |
| 215587 | 1 | Dibenz[a,c]anthracene |
| 224419 | 1 | Dibenz[a,j]anthracene |
| 53703 | 2 | 1,2,5,6-Dibenzanthracene; see Dibenz[a,h] anthracene |
| | 1,2 | Dibenzanthracenes; see Polynuclear aromatic hydrocarbons |
| 194592 | 1 | 7H-Dibenzo [c,g]carbazole |
| 5385751 | 1 | Dibenzo[a,e]fluoranthene |
| 192472 | 1 | Dibenzo[h,rst]pentaphene |
| 192654 | 1 | Dibenzo [a,e]pyrene |
| 189640 | 1 | Dibenzo [a,h]pyrene |
| 189559 | 1 | Dibenzo [a,i]pyrene |
| 191300 | 1 | Dibenzo[a,l]pyrene |
| 92842 | 3 | Dibenzothiazine; see Phenothiazine |
| 94360 | 3 | Dibenzoyl Perozide; see Benzoyl peroxide |
| 19287457 | 3 | Diborane |
| 300765 | 2 | Dibrom; see O,O-Dimethyl O-(1,2-dibromo-2,2-dichloroethyl) phosphate |
| 96128 | 1,3 | 1,2-Dibromo-3-chloropropane |
| 75616 | 3 | Dibromodifluoromethane |
| 106934 | 2,3 | 1,2-Dibromoethane; see Ethylene dibromide |
| 102818 | 3 | 2-(Dibutylamino) ethanol |
| 128370 | 1,3 | 2,6-Di-tert-butyl-p-cresol 7 |
| 107664 | 3 | Dibutyl phosphate |
| 84742 | 3 | Dibutyl phthalate; see Phthalate esters |

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|--------------------------------|---------|---|
| 84742 | 2 | Di-n-butyl phthalate; see Phthaltate esters |
| 1918009 | 2,4 | Dicamba |
| 1194656 | 2 | Dichlobenil |
| 117806 | 2 | Dichlone |
| 7572294 | 1,3 | Dichloroacetylene |
| 541731 | 2 | m-Dichlorobenzene |
| 106467 | 1,2,3 | p-Dichlorobenzene |
| 95501 | 2,3 | o-Dichlorobenzene |
| 95501 | 2 | 1,2-Dichlorobenzene; see o-Dichlorobenzene |
| 541731 | 2 | 1,3-Dichlorobenzene; see m-Dichlorobenzene |
| 106467 | 2 | 1,4-Dichlorobenzene; see p-Dichlorobenzene |
| 225321226 | 1,2,3 | Dichlorobenzenes; see Chlorinated benzenes |
| | 1,2,3 | Dichlorobenzidine (and its salts) |
| 91941 | 1,2,3 | 3,3'-Dichlorobenzidine; see Dichlorobenzidine (and its salts) |
| 72548 | 2 | 1,1-Dichloro-2,2-bis(p-chlorophenyl) ethane; see TDE |
| 72559 | 2,4 | 1,1-Dichloro-2,2-bis (p-chlorophenyl) ethylene |
| 75274 | 2 | Dichlorobromomethane; see Bromodichloromethane |
| 28434868 | 1 | 3,3'-Dichloro-4,4'-diaminodiphenyl ether |
| 75718 | 3 | Dichlorodifluoromethane (FC-12) |
| 118525 | 3 | 1,3-Dichloro-5,5-dimethyl-hydantoin |
| 107062 | 1,2 | 1,2-Dichloroethane; see Ethylene dichloride |
| 75343 | 2,3 | 1,1-Dichloroethane; see Ethylidene chloride |
| 156605 | 2 | 1,2-trans-Dichloroethylene |
| 540590 | 2,3 | 1,2-Dichloroethylene; see Acetylene dichloride |
| 75354 | 2,3 | 1,1 Dichloroethylene; see Vinylidene chloride |
| 111444 | ,1,3 | Dichloroethyl ether; see Chloroalkyl ethers |
| 75092 | 3 | Dichloromethane; see Methylene chloride |
| 75434 | 3 | Dichloromonofluoromethane (FC-21) |
| 117806 | 2 | Dichloronaphthoquinone; see Dichlone |
| 594729 | 3 | 1,1-Dichloro-1-nitroethane |
| 120832 | 2 | 2,4-Dichlorophenol |
| 94757 | 2,3,4 | 2,4-Dichlorophenoxyacetic acid; see 2,4-D |
| 609201 | 1 | 2,6-Dichloro-para-phenylenediamine |
| 1836755 | 1,4 | 2,4-Dichlorophenyl p-nitrophenyl ether |
| 26638197, 78875, 142289, 78999 | 1,2,3 | Dichloropropanes |
| 78875 | 1,2 | 1,2-Dichloropropane; see Dichloropropanes |
| 8003198 | 2 | Dichloropropene-dichloropropane (mixture) |
| 26952238, 542756, | 1,2,3,4 | Dichloropropenes |

78886
709988 4 3,4-Dichloropropionanilide; see Propanil
75990 2,3 2,2-Dichloropropionic acid
8003198 2 1,2-Dichloropropylene
76142 3 1,2-Dichloro-1,1,2,2-tetrafluoro-ethane
(FC-114)
62737 2 2,2-Dichlorovinyl dimethyl phosphate;
see Dichlorvos
62737 1,2,3 Dichlorvos
102307, 99309 2 Dicloran
115322 1,2 Dicofol; see 1,1-Bis(p-chlorophenyl)-2,
2,2-trichloroethanol
5124301 3 Dicyclohexylmethane-4,4'- diisocyanate
77736 3 Dicyclopentadiene
102545 3 Dicyclopentadienyl iron
60571 1,2,3,4 Dieldrin
84173 1 Dienestrol
1464535 1 Diepoxybutane 12
111422 3 Diethanolamine
109897 2,3 Diethylamine
100378 3 2-(Diethylamino)ethanol
12391 3 1,4-Diethylene dioxide; see p-Dioxane
111400 3 Diethylenetriamine
60297 3 Diethyl ether; see Ethyl ether
298044 3 O,O-Diethyl S-2-(ethylthio)ethyl
phosphorodithioate; see Disulfoton
298022 3 O,O-Diethyl S-(ethylthio)methyl
phosphorodithioate; see Phorate
103231 1 Di(2-ethylehexyl)adipate
117817 1 Di-(2-ethylhexyl) phthalate; see
Phthalate esters
1615801 1 1,2-Diethylhydrazine
333415 3 O,O-Diethyl O-(2-isopropyl-6-methy-
4-pyrimidinyl phosphorothioate; see
Diazinon
96220 3 Diethyl ketone
115902, 115913 3,4 O,O-diethyl O-[4-(methylsufiny)
phenyl] phosphorothioate
(fensulfotion)
56382 3 O,O-Diethyl O-(p-nitrophenyl)
phosphorothioate; see Parathion
84662 2,3 Diethyl phthalate; see Phthalate esters
56531 1 Diethylstilbestrol
64675 1 Diethyl sulfate
75616 3 Difluorodibromomethane; see
Dibromodifluoromethane
2238075 3 Diglycidyl ether
101906 1 Diglycidyl resorcinol ether
1563662 2,3,4 2,3-Dihydro-2,2-dimethyl-7-benzo-
furanyl methylcarbamate (carbofuran)
94586 1 Dihydrosafrole
123319 3 p-Dihydroxybenzene; see Hydroquinone
108463 2 meta-Dihydroxybenzene; see Resorcinol
794934 1 Dihydroxymethylfuratrizine
108838 3 Diisobutyl ketone
108189 3 Diisopropylamine
108203 3 Diisopropyl ether; see Isopropyl ether

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| 828002 | 1 | Dimethoxane |
| 119904 | 1 | 3,3'-Dimethoxybenzidine |
| 91930 | 1 | 3,3'-Dimethoxybenzidine-4,4'- diisocyanate |
| 109875 | 3 | Dimethoxymethane; see Methylal |
| 6923224 | 3,4 | 3-(Dimethoxyphosphinyloxy)-N- methyl-cis-crotonamide (Monocrotophos) |
| 127195 | 3 | N,N-Dimethylacetamide |
| 124403 | 2,3 | Dimethylamine |
| 60117 | 1,3 | 4-Dimethylaminoazobenzene |
| 1300738 | 3 | Dimethylaminobenzene; see Xylidine |
| 55738540 | 1 | trans-2-[(Dimethylamino) methylimino] -5-[2-(5-nitro-2-furyl)vinyl]- 1,3,4-oxadiazole |
| 121697 | 3 | N,N-Dimethylaniline |
| 108383 | 2,3 | Dimethylbenzene; see Xylene, all isomers |
| 119937 | 1 | 3,3'-Dimethylbenzidine |
| 108849 | 3 | 1,3-Dimethylbutyl acetate; see sec- Hexyl acetate |
| 79447 | 1 | Dimethylcarbonyl chloride |
| 300765 | 2,3 | 0,0-Dimethyl O-(1,2-dibromo-2, 2-dichloroethyl) phosphate (Naled) |
| 121755 | 3 | O,O-Dimethyl S-(1,2- dicarboethoxyethyl) phosphorodithioate; see Malathion |
| 8022002 | 3 | O,O-Dimethyl O-(2-(ethylthio)-ethyl) phosphorothioate and O,O-Dimethyl S-(2-(ethylthio)-ethyl) phosphoro- thioate mixture; see Methyl demeton |
| 68122 | 3 | N,N-Dimethylformamide |
| 108838 | 3 | 2,6-Dimethyl-4-heptanone; see Diisobutyl ketone |
| 540738 | 1 | 1,2-Dimethylhydrazine |
| 57147, 540738 | 1,3 | Dimethylhydrazine (all isomers) |
| 67641 | 3 | Dimethyl ketone; see Acetone |
| 115902, 115913 | 3,4 | 0,0-Dimethyl O-[p-(methylsulfinyl) -phenyl]phosphorothioate (fensulfothion) |
| 55389 | 3 | O,O-dimethyl O-[3-methyl-4 (methylthio) phenyl] phosphorothioate; see Fenthion |
| 298000 | 3 | O,O-Dimethyl O-(p-nitrophenyl) phosphorothioate; see Methyl parathion |
| 62759 | 1,3 | N,N-Dimethylnitrosamine; see N-Nitrosodimethylamine |
| 86500 | 2,3,4 | 0,0-Dimethyl S-(4-oxo-benzotri- azino-3-methyl) phosphorodithioate (Azinphos methyl) |
| 105679 | 2 | 2,4-Dimethylphenol |
| 1300716 | 2 | Dimethylphenol; see Xylenol |
| 121697 | 3 | Dimethylphenylamine; see N,N- Dimethylaniline |
| 10265926 | 4 | 0,S-Dimethyl phosphoramidothioate |
| 950378 | 4 | 0,0-Dimethyl phosphorodithioate, S- |

ester with 4-(mercaptomethyl)-
 2-methoxy-02-1,3,4-
 thiadiazolin-5-one
 77781 2,3 Dimethyl phthalate; see Phthalate esters
 77781 1,3 Dimethyl sulfate
 299843 2,3 O,O-Dimethyl
 O-(2,4,5-trichlorophenyl)
 phosphorothioate; see Ronnel
 148016 3 Dinitrolmide; see 3,5-Dinitro-o-
 toluamide
 25154545, 99650, 2,3 Dinitrobenzenes, all isomers
 100254, 528290
 25154545 2 Dinitrobenzol; see Dinitrobenzenes, all
 isomers
 534521 2,3,4 4,6-Dinitro-o-cresol
 534521 2 Dinitrocresol; see Nitrophenols, all
 isomers
 51285 2,4 2,4-Dinitrophenol; see Dinitrophenols
 51285, 329715, 2,4 Dinitrophenols
 573568
 42397648 1 1,6-Dinitropyrene
 43977659 1 1,8-Dinitropyrene
 148016 3 3,5-Dinitro-o-toluamide
 606202 2 2,6-Dinitrotoluene
 121142 2 2,4-Dinitrotoluene
 25321146, 121142, 2,3 Dinitrotoluenes, all isomers
 121142, 606202,
 610399, 602017,
 619518
 88857 4 Dinoseb
 117840 2 Di-n-octyl phthalate
 117817 3 Di-sec-octyl phthalate; see Phthalate
 esters
 123911 3 1,4-Dioxacyclohexane; see p-Dioxane
 123911 1,3 p-Dioxane
 123911 1 1,4-Dioxane; see p-Dioxane
 78342 3,4 2,3-p-Dioxanedithiol S,S-bis (0,0-
 diethyl phosphorodithioate)
 (dioxathion)
 78342 3,4 Dioxathion; see 2,3-p-Dioxanedithiol
 S,S-bis (O,O-diethyl
 phosphorodithioate)
 92524 3 Diphenyl; see Biphenyl
 122394 3 Diphenylamine
 57410 1 Diphenylhydantoin (Phenytoin)
 630933 1 Diphenylhydantoin (Phenytoin), sodium
 salt
 38622183 2 Diphenylhydrazine
 122667 2 1,2-Diphenylhydrazine; see
 Hydrazobenzene
 101688 3 Diphenylmethane diisocyanate; see
 Methylene bis(4-phenylisocyanate)
 34590948 3 Dipropylene glycol monomethyl ether
 123193 3 Dipropyl ketone
 85007, 2764729 2,3 Diquat
 1937377 1 Direct Black 38 (technical grade)
 2602462 1 Direct Blue 6 (technical grade)

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| 16071866 | 1 | Direct Brown 95 | |
| 2475458 | 1 | Disperse Blue 1 | |
| 97778 | 3 | Disulfiram | |
| 298044 | 2,3,4 | Disulfoton | |
| 298044 | 2,4 | Disyston; see Disulfoton | |
| 1189851 | 3 | Di-tert-butyl chromate; see Chromium compounds | |
| 330541 | 2,3 | Diuron | |
| 108576 | 3 | Divinyl benzene | |
| 27176870 | 2 | Dodecylbenzenesulfonic acid | 9 |
| 23214928 | 1 | Doxorubicin hydrochloride; see Adriamycin | |
| 60004 | 2 | EDTA | |
| 115297 | 2,3,4 | Endosulfan | |
| 959988 | 2 | alpha-Endosulfan | |
| 33213659 | 2 | beta-Endosulfan | |
| 1031078 | 2 | Endosulfan-sulfate | |
| 72208 | 2,3,4 | Endrin | |
| 7421934 | 2 | Endrin aldehyde | |
| 106898 | 1,2,3 | Epichlorohydrin | 12 |
| 2104645 | 3,4 | EPN | |
| 106876 | 1 | 1-Epoxyethyl-3,4-epoxycyclohexane; see Vinyl cyclohexene dioxide | |
| 4016142 | 3 | 1,2-Epoxy-3-isopropoxypropane; see Isopropyl glycidyl ether | |
| 141377 | 1 | 3,4-Epoxy-6-methylcyclohexylmethyl-3,4-epoxy-6-methylcyclohexane carboxylate | |
| 122601 | 3 | 1,2-Epoxy-3-phenoxypropane; see Phenyl glycidyl ether | |
| 75569 | 3 | 1,2-Epoxypropane; see Propylene oxide | |
| 556525 | 3 | 2,3-Epoxypropanol; see Glycidol | |
| 12510428 | 1 | Erionite | |
| 75058 | 3 | Ethanenitrile; see Acetonitrile | |
| 75081 | 3 | Ethanethiol; see Ethyl mercaptan | |
| 64175 | 1,3 | Ethanol; see Ethyl alcohol | |
| 141435 | 3 | Ethanolamine | |
| 463514 | 3 | Ethenone; see Ketene | |
| 57636 | 1 | Ethinylestradiol | |
| 563122 | 2,3,4 | Ethion | |
| 536334 | 1 | Ethionamide | |
| 110805 | 3 | 2-Ethoxyethanol; see Ethylene glycol monoethyl ether | |
| 111159 | 3 | 2-Ethoxyethanol acetate; see Ethylene glycol monoethyl ether acetate | |
| 141786 | 3 | Ethyl acetate | |
| 140885 | 1,3 | Ethyl acrylate | |
| 64175 | 1,3 | Ethyl alcohol | 13 |
| 75047 | 2,3 | Ethylamine | |
| 541855 | 3 | Ethyl sec-amyl ketone | |
| 100414 | 2,3 | Ethylbenzene | |
| 74964 | 3 | Ethyl bromide | |
| 106354 | 3 | Ethyl butyl ketone | |
| 75003 | 3 | Ethyl chloride | |
| 510156 | 1 | Ethyl-4,4'-dichlorobenzilate; see Chlorobenzilate | |
| 13194484 | 4 | O-Ethyl S,S-dipropyl phosphorodithioate | |

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|----------|-----------|---|----|
| | | (ethoprop) | |
| 85007 | 3 | 1,1'-Ethylene-2,2'-bipyridinium dibromide; see Diquat | |
| 107073 | 3 | Ethylene chlorohydrin | |
| 107153 | 2,3 | Ethylenediamine | |
| 106934 | 1,2,3,4,5 | Ethylene dibromide | 33 |
| 107062 | 1,2,3,4 | Ethylene dichloride | |
| 107211 | 3 | Ethylene glycol | 14 |
| 628966 | 3 | Ethylene glycol dinitrate | |
| 111762 | 2,3 | Ethylene glycol monobutyl ether | |
| 110805 | 3,5 | Ethylene glycol monoethyl ether | |
| 111159 | 3,5 | Ethylene glycol monoethyl ether acetate | |
| 109864 | 3,5 | Ethylene glycol monomethyl ether | |
| 110496 | 3,5 | Ethylene glycol monomethyl ether acetate | |
| 151564 | 1,3 | Ethyleneimine | |
| 75218 | 1,2,3,5 | Ethylene oxide | 12 |
| 420122 | 1 | Ethylene sulphide | |
| 96457 | 1 | Ethylenethiourea | |
| 79016 | 2 | Ethylene trichloride; see Trichlorethylene | |
| 60297 | 3 | Ethyl ether | |
| 109944 | 3 | Ethyl formate | |
| 75343 | 3 | Ethylidene chloride | |
| 16219753 | 3 | Ethylidene norbornene | |
| 75081 | 3 | Ethyl mercaptan | |
| 62500 | 1 | Ethyl methanesulphonate | |
| 563122 | 2 | Ethyl methylene; see Ethion | |
| 78933 | 3 | Ethyl methyl ketone; see 2-Butanone | |
| 22224926 | 3,4 | Ethyl 3-methyl-4-(methylthio)-phenyl (1-methylethyl) phosphoramidate | |
| 100743 | 3 | N-Ethylmorpholine | |
| 2104645 | 3 | O-Ethyl O-(p-nitrophenyl) phenylphosphonothioate; see EPN | |
| 759739 | 1 | N-Ethyl-N-Nitrosourea; see N-Nitroso-N-ethylurea | |
| 56382 | 2,4 | Ethyl parathion; see Parathion | |
| 78104 | 3 | Ethyl silicate | |
| 100743 | 3 | 4-Ethyl-1,4-tetrahydrooxazine; see N-Ethylmorpholine | |
| 110805 | 3 | 2-Ethoxyethanol; see Ethylene glycol monoethyl ether | |
| 97530 | 1 | Eugenol | |
| 314136 | 1 | Evans blue | |
| 2353459 | 1 | Fast Green FCF | |
| 22224926 | 3,4 | Fenamiphos; see Ethyl-3-methyl-4 (methylthio)phenyl (1-methylethyl) phosphoramidate | |
| 115902 | 3 | Fensulfothion; see O,O-Diethyl O-[4-(methylsulfinyl)phenyl] phosphorothioate | |
| 55389 | 3 | Fenthion | |
| 101428 | 2 | Fenuron | |
| 4482557 | 2 | Fenuron-TCA | |
| 14484641 | 3,4 | Ferbam | |
| 1185575 | 2 | Ferric ammonium citrate; see Iron salts, soluble | |
| 2944674 | 2 | Ferric ammonium oxalate; see Iron salts, soluble | |

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|----------|-------|---|----|
| 7705080 | 2 | Ferric chloride; see Iron salts, soluble | |
| 14484641 | 3 | Ferric N,N-dimethylthiocarbamate; see Ferbam | |
| 7783508 | 2 | Ferric fluoride; see Iron salts, soluble | |
| 10421484 | 2 | Ferric nitrate; see Iron salts, soluble | |
| 10028225 | 2 | Ferric sulfate; see Iron salts, soluble | |
| 10045893 | 2 | Ferrous ammonium sulfate; see Iron salts, soluble | |
| 7758943 | 2 | Ferrous chloride; see Iron salts, soluble | |
| 7720787 | 2 | Ferrous sulfate; see Iron salts, soluble | |
| 12604589 | 3 | Ferrovandium dust | 3 |
| 206440 | 2 | Fluoranthene | |
| 53963 | 3 | n-Fluoren-2-yl-acetamide; see 2- Acetylamino-fluorene | |
| | 2,3 | Fluoride, and inorganic fluoride compounds | |
| 7782414 | 2,3 | Fluorine | |
| 640197 | 4 | Fluoroacetamide/1081 | |
| 75694 | 3 | Fluorocarbon 11; see Fluorotrchloromethane | |
| 75718 | 3 | Fluorocarbon 12; see Dichlorodifluoromethane | |
| 75434 | 3 | Fluorocarbon 21; see Dichloromonofluoromethane | |
| 75456 | 3 | Fluorocarbon 22; see Chlorodifluoromethane | |
| 76120 | 3 | Fluorocarbon 112; see 1,1,2,2- Tetrachloro-1,2-difluoroethane | |
| 76131 | 3 | Fluorocarbon 113; see 1,1,2- Trichloro-1,2,2-trifluoroethane | |
| 76142 | 3 | Fluorocarbon 114; see 1,2-Dichloro-1,1,2,2- tetrafluoroethane | |
| 75694 | 3 | Fluorotrchloromethane | |
| 150505 | 4 | Folex; see s,s,s-Tributyl phosphorotritthioite | |
| 133073 | 4 | Folpet | |
| 944229 | 3,4 | Fonofos | |
| 50000 | 1,2,3 | Formaldehyde | |
| 75127 | 3 | Formamide | |
| 64186 | 2,3 | Formic acid | |
| 3570750 | 1 | 2-(2-Formylhydrazino)-4-(5- nitro-2-furyl) thiazole | |
| 110178 | 2 | Fumaric acid | 15 |
| 6164983 | 4 | Fundal; see Chlordimeform | |
| 98011 | 2 | 2-Furaldehyde; see Furfural | |
| 98011 | 2,3 | Furfural | |
| 98000 | 3 | Furfuryl alcohol | |
| 6164983 | 4 | Galecron; see Chlordimeform | |
| 8006619 | 3 | Gasoline | 16 |
| 7782652 | 3 | Germanium tetrahydride | |
| | 3 | Glass, fibrous or dust | 38 |
| 67730114 | 1 | Glu-P-1 (2-Amino-6- methyldipyrido[1,2-a:3',2'- d]imidazole | |
| 67730103 | 1 | Glu-P-2 (2-Aminodipyrido[1,2-a:3',2'- -d]imidazole) | |

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| 111308 | 3 | Glutaraldehyde | |
| 765344 | 1 | Glycidaldehyde | |
| 556525 | 3 | Glycidol | 12 |
| 7782425 | 3 | Graphite | 17 |
| 126078 | 1 | Griseofulvin | |
| 4680788 | 1 | Guinea Green B | |
| 86500 | 2 | Guthion; see O,O-Dimethyl S-(4-oxobenzotriazino-3-methyl) phosphorodithioate | |
| 16568028 | 1 | Gyromitrin (Acetaldehyde methylformylhydrazone) | |
| 822060 | 3 | HDI; see Hexamethylene diisocyanate | |
| 7440586 | 3 | Hafnium | |
| | 2 | Haloethers (other than those listed elsewhere, includes chloro-phenylphenyl ethers, bromophenylphenyl ether, bis(dichloroisopropyl) ether, bis(chloroethoxy) methane and polychlorinated diphenyl ethers) | |
| | 2 | Halomethanes | |
| 2784943 | | HC Blue 1 | |
| 76448 | 1,2,3,4 | Heptachlor | |
| 1024573 | 2 | Heptachlor epoxide | |
| 76448 | 3 | 1,4,5,6,7,8,8,-Heptachloro-3a, 4,7,7a-tetrahydro-4,7-methanoindene; see Heptachlor | |
| 142845 | 3 | n-Heptane | |
| 106354 | 3 | 3-Heptanone; see Ethyl butyl ketone | |
| 110430 | 3 | 2-Heptanone; see Methyl n-amyl ketone | |
| 118741 | 1,2 | Hexachlorobenzene; see Benzene hexachloride | |
| 87683 | 1,2,3 | Hexachlorobutadiene | |
| 608731 | 2 | Hexachlorocyclohexane | |
| | 1 | Hexachlorocyclohexanes | |
| 77474 | 2,3 | Hexachlorocyclopentadiene | |
| 72208 | 3 | 1,2,3,4,10,10-Hexachloro-6,7-epoxy-, 1,4,4a,5,6,7,8,8a-octahydro-1,4,-endo-endo-5,8-dimethano naphthalene and metabolites; see Endrin | |
| 60571 | 3 | 1,2,3,4,10,10-Hexachloro-6,7-epoxy- 1,4,4a,5,6,7,8,8a-octahydro-1,4,-endo-exo-5,8-dimethanonaphthalene; see Dieldrin | |
| 67721 | 1,2,3 | Hexachloroethane | |
| 115297 | 3 | 6,7,8,9,10,10-Hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepin-3-oxide; see Endosulfan | |
| 309002 | 3 | 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-endo-1,2-exo-5,8-dimethanonaphthalene; see Aldrin | |
| 1335871 | 2,3 | Hexachloronaphthalene | |
| 70304 | 2 | Hexachlorophene (HCP) | |
| 684162 | 3 | Hexafluoroacetone | |
| 684162 | 3 | 1,1,1,3,3,3,-Hexafluoro-2-propanone; see Hexafluoroacetone | |

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| 822060 | 3 | Hexamethylene diisocyanate | |
| 680319 | 1 | Hexamethylphosphoramide | |
| | 3 | Hexane (all isomers) | |
| 591786 | 3 | 2-Hexanone; see Methyl n-butyl ketone | |
| 108101 | 3 | Hexone; see Methyl isobutyl ketone | |
| 108849 | 3 | sec-Hexyl acetate | |
| 107415 | 3 | Hexylene glycol | |
| 86544 | 1 | Hydralazine | |
| 302012 | 1,3 | Hydrazine | |
| 10035106 | 3 | Hydrobromic acid; see Hydrogen bromide | |
| 7647010 | 2,3 | Hydrochloric acid; see Hydrogen chloride | |
| 74908 | 2,3,4 | Hydrocyanic acid; see Hydrogen cyanide | |
| 7664393 | 2,3 | Hydrofluoric acid; see Hydrogen fluoride | |
| 1333740 | 3 | Hydrogen | |
| 5124301 | 3 | Hydrogenated MDI; see Dicyclohexylmethane-4,4'-diisocyanate | |
| | 3 | Hydrogenated terphenyls | |
| 10035106 | 3 | Hydrogen bromide | |
| 7647010 | 2,3 | Hydrogen chloride | |
| 74908 | 2,3,4 | Hydrogen cyanide | |
| 7664393 | 2,3 | Hydrogen fluoride | |
| 7722841 | 1,3 | Hydrogen peroxide | |
| 7783075 | 2 | Hydrogen selenide; see Selenium and selenium compounds | |
| 7783064 | 2,3 | Hydrogen sulfide | |
| 123319 | 3 | Hydroquinone | |
| 141662 | 3,4 | 3-Hydroxy-N,N-dimethyl-cis-crotonamide dimethyl phosphate (dicrotophos) | |
| 6923224 | 3 | 3-Hydroxy-N-methyl-cis-crotonamide dimethyl phosphate; see 3-(Dimethoxyphosphinyloxy)-N-methyl-ciscrotonamide | |
| 123422 | 3 | 4-Hydroxy-4-methyl-2-pentanone | |
| 999611 | 3 | Hydroxypropyl acrylate | |
| 4016142 | 3 | IGE; see Isopropyl glycidyl ether | |
| 4098719 | 3 | IPDI; see Isophorone diisocyanate | |
| 76180966 | 1 | IQ; (2-Amino-3-methylimidazo[4,5-f]quinoline) | |
| 95316 | 3 | Indene | |
| 193395 | 1,2 | Indeno(1,2,3-cd)pyrene | |
| | 2,3 | Indium and indium compounds | |
| 7553562 | 3 | Iodine | |
| 75478 | 3 | Iodoform | |
| 7439896 | 2 | Iron | |
| 9004664 | 1 | Iron dextran | |
| 8050939 | 1 | Iron-dextrin complex | |
| 1309371 | 3 | Iron oxide fume | |
| 13463406 | 3 | Iron pentacarbonyl | |
| | 2,3 | Iron salts, soluble | 18 |
| 15503863 | 1 | Isatidine | |
| 12392 | 3 | Isoamyl acetate; see Amyl acetate | |
| 123513 | 3 | Isoamyl alcohol | |
| 110190 | 3 | Isobutyl acetate (2-methylpropyl acetate) | |
| 78831 | 3 | Isobutyl alcohol | |

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| 78819 | 2 | Isobutylamine; see Butylamine, all isomers | |
| 54853 | 1 | Isonicotinic acid hydrazide (Isoniazid) | |
| 26952216 | 3 | Isooctyl alcohol | |
| 78591 | 2,3 | Isophorone | |
| 4098719 | 3 | Isophorone diisocyanate | |
| 3778732 | 1 | Isophosphamide | |
| 78795 | 2 | Isoprene | |
| 42504461 | 2 | Isopropanolamine dodecylbenzenesulfonate | 9 |
| 109591 | 3 | Isopropoxyethanol | |
| 114261 | 3 | 2-Isopropoxyphenyl N-methylcarbamate (propoxur) | |
| 108214 | 3 | Isopropyl acetate | |
| 67630 | 1,3 | Isopropyl alcohol | |
| 75310 | 3 | Isopropylamine | |
| 643287 | 3 | N-Isopropylaniline | |
| 98828 | 3 | Isopropylbenzene; see Cumene | |
| 108203 | 3 | Isopropyl ether | |
| 4016142 | 3 | Isopropyl glycidyl ether | 12 |
| 120581 | 1 | Isosafrole | |
| 115322 | 2 | Kelthane; see 1,1-Bis(p-chlorophenyl)-2,2,2-trichloroethanol | |
| 143500 | 1,2 | Kepone; see Chlordecone | |
| 463514 | 3 | Ketene | |
| 16752775 | 4 | Lannate; see S-Methyl N-((methyl carbamoyl)oxy)-thioacetimidate | |
| 303344 | 1 | Lasiocarpine | |
| 7439921 | 1,2,3 | Lead | 3 |
| 301042 | 2 | Lead acetate; see Lead compounds | |
| 7784409, 7645252, 10102480 | 2,3 | Lead arsenate; see Lead compounds | |
| 7758954 | 2 | Lead chloride; see Lead compounds | |
| 7758976 | 3 | Lead chromate; see Chromium compounds | |
| | 1,2,3 | Lead compounds | |
| 13814965 | 2 | Lead fluoborate; see Lead compounds | |
| 7783462 | 2 | Lead fluoride; see Lead compounds | |
| 10101630 | 2 | Lead iodide; see Lead compounds | |
| 10099748 | 2 | Lead nitrate; see Lead compounds | |
| 7446277 | 1 | Lead phosphate; see Lead compounds | |
| 7428480, 1072351, 52652592 | 2 | Lead stearate; see Lead compounds | |
| 1335326 | 1 | Lead subacetate; see Lead compounds | |
| 7446142 | 2 | Lead sulfate; see Lead compounds | |
| 1314870 | 2 | Lead sulfide; see Lead compounds | |
| 78002 | 2,3 | Lead tetraethyl; see Lead compounds | |
| 75741 | 3 | Lead tetramethyl; see Lead compounds | |
| 592870 | 2 | Lead thiocyanate; see Lead compounds | |
| 5141208 | 1 | Light Green SF | |
| 58899 | 2,3,4 | Lindane and other Hexachlorocyclohexane isomers | |
| 330552 | 2 | Linuron | |
| 14307358 | 2 | Lithium chromate; see Chromate compounds | |
| 7580678 | 3 | Lithium hydride | |
| 21884446 | 1 | Luteoskyrin | |

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| 101144 | 3 | MBOCA; see 4,4'-Methylene bis(2-chloroaniline) | |
| 94746 | 4 | MCPA (2-methyl-4-chlorophenoxyacetic acid) | |
| 101779 | 3 | MDA; see 4,4'-Methylene dianiline | |
| 101688 | 3 | MDI; see Methylene bis(4-phenylisocyanate) | |
| 68006837 | 1 | MeA-a-C (2-Amino-3-methyl-9H-pyrido [2,3-b]indole) | |
| 78933 | 3 | MEK; see 2-Butanone | |
| 101144 | 1 | MOCA; see 4,4'-Methylene bis(2-chloroaniline) | |
| | 1 | MOPP | |
| 7439954 | 2 | Magnesium | |
| 1309484 | 3 | Magnesium oxide | 3 |
| 121755 | 2,3 | Malathion | |
| 110167 | 2 | Maleic acid | |
| 108316 | 2,3 | Maleic anhydride | |
| 7439965 | 2,3 | Manganese | 3 |
| | 3 | Manganese compounds | |
| 12079651 | 3 | Manganese, cyclopentadienyl-tricarbonyl | |
| 1317537 | 3 | Manganese tetroxide; see Manganese compounds | |
| 551746 | 1 | Mannomustine | |
| 71589 | 1 | Medroxyprogesterone acetate | |
| 148823 | 1 | Melphalan | |
| 2032657 | 2 | Mercaptodimethur | |
| 592041 | 2 | Mercuric cyanide; see Mercury and mercury compounds | |
| 10045940 | 2 | Mercuric nitrate; see Mercury and mercury compounds | |
| 7783359 | 2 | Mercuric sulfate; see Mercury and mercury compounds | |
| 592858 | 2 | Mercuric thiocyanate; see Mercury and mercury compounds | |
| 7782867 | 2 | Mercurous nitrate; see Mercury and mercury compounds | |
| | 2,3,4 | Mercury and mercury compounds | |
| 531760 | 1 | Merphalan | |
| 108678 | 3 | Mesitylene; see Trimethylbenzene (all isomers) | |
| 141797 | 3 | Mesityl oxide | |
| 72333 | 1 | Mestranol | |
| 2032657 | 2 | MesuroI; see Mercaptodimethur | |
| 79414 | 3 | Methacrylic acid | |
| 74931 | 2,3 | Methanethiol; see Methyl mercaptan | |
| 67561 | 3 | Methanol; see Methyl alcohol | |
| 2032657 | 2 | Methiocarb; see Mercaptodimethur | |
| 16752775 | 3,4 | Methomyl; see 5-Methyl N-[(methylcarbamoxy)oxy]-thioacetanide | |
| 298817 | 1 | Methoxsalen (with ultraviolet therapy) | |
| 72435 | 2,3 | Methoxychlor | |
| 109864 | 3 | 2-Methoxyethanol; see Ethylene glycol monomethyl ether | |
| 110496 | 3 | 2-Methoxyethyl acetate; see Ethylene | |

glycol monomethyl ether acetate

150765 3 4-Methoxyphenol

484208 5-Methoxypsoralen

298817 1 8-Methoxypsoralen; see Methoxsalen

79209 3 Methyl acetate

74997 3 Methyl acetylene

3 Methyl acetylene-propadiene mixture

123739 3 beta-Methylacrolein; see Crotonaldehyde

96333 3 Methyl acrylate

126987 3 alpha-Methylacrylonitrile

109875 3 Methylal

67561 3 Methyl alcohol 30

74895 2,3 Methylamine

108112 3 Methyl amyl alcohol; see Methyl isobutyl carbinol

110430 3 Methyl n-amyl ketone

1 5-Methylangelicin

100618 3 N-Methylaniline

95534 1,3 o-Methylaniline

75558 1,3 2-Methylaziridine

590965 1 Methylazoxymethanol

592621 1 Methylazoxymethyl acetate

74839 1,2,3,4 Methyl bromide

78795 2 2-Methyl-1,3-butadiene; see Isoprene

123513 3 3-Methylbutanol; see Isoamyl alcohol

123922 3 3-Methylbutyl acetate; see Amyl acetate, all isomers

591786 3 Methyl n-butyl ketone

13909096 1 Methyl-CCNU; see 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea

109864 5 Methyl CellosolveRegistered; see Ethylene glycol monomethyl ether

74873 2,3 Methyl chloride

71556 2,3 Methyl chloroform

107302 1,3 Methyl chloromethyl ether 31

3351324 1 2-Methylchrysene

3351313 1 3-Methylchrysene

3351302 1 4-Methylchrysene

3697243 1 5-Methylchrysene

1705857 1 6-Methylchrysene

75058 3 Methyl cyanide; see Acetonitrile

137053 3 Methyl 2-cyanoacrylate

108872 3 Methylcyclohexane

1331233, 591231, 3 Methylcyclohexanol, all isomers

583595, 25639423

583608 3 o-Methylcyclohexanone

12108133 3 2-Methylcyclopentadienyl manganese tricarbonyl

8022002 3 Methyl demeton

534521 2,3 2-Methyl-4,6-dinitrophenol; see 4,6-Dinitro-O-cresol

99809 1 N-Methyl-N,4-Dinitrosoaniline

75092 1,2,3,5 Methylene chloride

101144 1,3 4,4'-Methylene bis(2-chloroaniline)

5124301 3 Methylene bis(4-cyclohexylisocyanate);

see Dicyclohexylmethane-
 4,4'-diisocyanate
 101611 1 4,4'-Methylene
 bis(N,N-dimethyl)benzenamine
 838880 1 4,4'-Methylene bis(2-methylaniline)
 101688 3 Methylenebis(4-phenyl isocyanate)
 101779 1,3 4,4'-Methylenedianiline
 13552448 4,4'-Methylenedianiline
 dihydrochloride
 78933 3 Methyl ethyl ketone; see 2-Butanone
 1338234 3 Methyl ethyl ketone peroxide
 33543316 1 2-Methylfluoranthene
 107313 3 Methyl formate
 541855 3 5-Methyl-3-heptanone; see
 Ethyl sec-amyl ketone
 60344 3 Methyl hydrazine
 74884 1,3 Methyl iodide
 110123 3 Methyl isoamyl ketone
 108112 3 Methyl isobutyl carbinol
 108101 3 Methyl isobutyl ketone
 624839 3 Methyl isocyanate
 563804 3 Methyl isopropyl ketone
 74931 2,3 Methyl mercaptan
 80626 2,3 Methyl methacrylate
 66273 1 Methyl methanesulfonate
 16752775 3,4 S-Methyl N-[(methylcarbamoyl)oxy]-
 thioacetamide
 (Methomyl)
 80626 2,3 Methyl 2-methyl-2-propenoate;
 see Methyl methacrylate
 129157 1 2-Methyl-1-nitroanthraquinone
 70257 1 N-Methyl-N'-nitro-N-nitroso-
 guanidine
 684935 1 N-Methyl-N-Nitrosourea; see
 N-Nitroso-N-methylurea
 615532 1 N-Methyl-N-Nitrosourethane;
 see N-Nitroso-N-methylurethane
 298000 2,3,4 Methyl parathion
 108112 3 4-Methyl-2-pentanol; see
 Methyl isobutyl carbinol
 141797 3 4-Methyl-3-pentene-2-one;
 see Mesityl oxide
 108849 3 4-Methyl-2-pentyl acetate; see
 sec-Hexyl acetate
 98839 3 1-Methyl-1-phenylethene; see
 alpha Methylstyrene
 78831 3 2-Methylpropanol; see Isobutyl alcohol
 110190 3 2-Methylpropyl acetate; see
 Isobutyl acetate
 107879 3 Methyl propyl ketone; see 2-Pentanone
 54115 3 1-Methyl-2-(3-pyridyl)
 pyrrolidine; see Nicotine
 681845 3 Methyl silicate
 98839 3 alpha-Methylstyrene
 77781 3 Methyl sulfate; see Dimethyl sulfate
 58184 1 Methyl testosterone
 56042 1 Methylthiouracil

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| 484208 | 1 | 5-Methoxypsoralen | |
| 443481 | 1 | Metronidazole | |
| 7786347 | 2,3,4 | Mevinphos; see alpha-2-Carbomethoxy-1- methylvinyl dimethyl phosphate | |
| 315184 | 2 | Mexacarbate | |
| 12001262 | 3 | Mica | 19 |
| | 3 | Mineral wool fiber | |
| 2385855 | 1,2 | Mirex | |
| 50077 | 1 | Mitomycin C | |
| 13194484 | 4 | Mocap; see O-Ethyl S,S dipropyl phosphorodithioate | |
| 2212671 | 4 | Molinate | |
| 7439987 | 2,3 | Molybdenum | 3 |
| 10265926 | 3 | Molybdenum compounds | 20 |
| | 4 | Monitor; see O,S-Dimethyl phosphoramidothioate | |
| 108907 | 2,3 | Monochlorobenzene; see Chlorinated benzenes | |
| 315220 | 1 | Monocrotaline | |
| 6923224 | 3,4 | Monocrotophos; see 3- (Dimethoxyphosphinyloxy)-N- methyl-cis-crotonamide | |
| 75047 | 2 | Monoethylamine; see Ethylamine | |
| 74895 | 2 | Monomethylamine; see Methylamine | |
| 100618 | 3 | Monomethylaniline; see N-Methylaniline | |
| 60344 | 3 | Monomethyl hydrazine; see Methyl hydrazine | |
| 150685 | 1,2 | Monuron | |
| 140410 | 2 | Monuron-TCA | |
| 110918 | 3 | Morpholine | |
| 139913 | 1 | 5-(Morpholinomethyl)-3- [(5-nitrofurfurylidene)-amino] -2-oxazolidinone | |
| 7647010 | 2 | Muriatic acid; see Hydrogen chloride | |
| 505602 | 1 | Mustard Gas | |
| 25551284 | 3 | NDI; see Naphthalene diisocyanate | |
| 139139 | 2 | NTA; see Nitriлотriacetic acid | |
| 3771195 | 1 | Nafenopin | |
| 300765 | 3 | Naled; see O,O-Dimethyl O- (1,2-dibromo-2,2 dichloroethyl) phosphate | |
| 8030317 | 3 | Naphtha, coal tar | |
| 91203 | 2,3 | Naphthalene | |
| 2243621 | 1 | 1,5-Naphthalenediamine | |
| 25551284 | 3 | Napthalene diisocyanate | |
| 1338245 | 2 | Naphthenic acid | |
| 134327 | 3 | 1-Naphthylamine; see alpha-Naphthylamine | |
| 91598 | 1 | 2-Naphthylamine; see beta-Naphthylamine | |
| 134327 | 3 | alpha-Naphthylamine | |
| 91598 | 1,3 | beta-Naphthylamine | 31 |
| 63252 | 3 | 1-Naphthyl N-methylcarbamate; see Carbaryl | |

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|---------------------------------|-------|--|----|
| 86884 | 3 | 1-(1-Naphthyl)-2-thiourea | |
| 22224926 | 4 | Nemacur; see Ethyl 3-methyl-4-(methylthio) phenyl (1-methyl ethyl) phosphoramidate | |
| 563122 | 2 | Nialate; see Ethion | |
| 7440020 | 1,2,3 | Nickel | 3 |
| 15699180 | 2 | Nickel ammonium sulfate; see Nickel compounds | |
| 13463393 | 3 | Nickel carbonyl; see Nickel compounds | |
| 37211055 | 2 | Nickel chloride; see Nickel compounds | |
| 7718549 | 1,2,3 | Nickel compounds | |
| 12054487 | 2 | Nickel hydroxide; see Nickel compounds | |
| 14216752 | 2 | Nickel nitrate; see Nickel compounds | |
| 12035722 | 1 | Nickel subsulphide; see Nickel compounds | |
| 778614 | 2 | Nickel sulfate; see Nickel compounds | |
| 54115 | 3,4 | Nicotine | |
| 56382 | 2 | Niran; see Parathion | |
| 61574 | 1 | Niridazole | |
| 139946 | 1 | Nithiazide | |
| 1929824 | 3 | Nitrapyrin; see 2-Chloro-6-(trichloromethyl) pyridine | |
| 7697372 | 2,3 | Nitric acid | |
| 10102439 | 3 | Nitric oxide | |
| 139139 | 2 | Nitilotriacetic acid | |
| 602879 | 1 | 5-Nitroacenaphthene | |
| 100016 | 3 | p-Nitroaniline | |
| 99592 | 1 | 5-Nitro-o-anisidine | |
| 98953 | 2,3 | Nitrobenzene | |
| 100005 | 3 | p-Nitrochlorobenzene | |
| 7496028 | 1 | 6-Nitrochrysene | |
| 92933 | 3 | 4-Nitrodiphenyl | 31 |
| 79243 | 3 | Nitroethane | |
| 1836755 | 1 | Nitrofen (technical grade); see 2,4-Dichlorophenyl p-nitrophenyl ether | |
| 607578 | 1 | 2-Nitrofluorene | |
| 59870 | 1 | Nitrofurazone | |
| 555840 | 1 | 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone | |
| 531828 | 1 | N-4-[(5-Nitro-2-furyl)-2-thiazolyl] acetamide | |
| 10102440 | 2,3 | Nitrogen dioxide | |
| 51752, 55867 | 1 | Nitrogen mustard and its hydrochloride | |
| 302705, 126852 | 1 | Nitrogen mustard N-oxide and its hydrochloride | |
| 10102440 | 2,3 | Nitrogen tetroxide; see Nitrogen dioxide | |
| 7783542 | 3 | Nitrogen trifluoride | |
| 55630 | 3 | Nitroglycerin | |
| 75525 | 3 | Nitromethane | |
| 25154556, 554847, 88755, 100027 | 2 | Nitrophenols, all isomers | |
| 79469 | 1,3 | 2-Nitropropane; see Nitropropanes | |
| 108032, 794691 | 3 | Nitropropanes | |
| 57835924 | 1 | 4-Nitropyrene | |
| 5522430 | 1 | 1-Nitropyrene | |
| | 2 | Nitrosamines | |
| 1133648 | 1 | N'-Nitrosoanabasine | |

| | | | |
|------------------------------|-------|---|----|
| 924163 | 1 | N-Nitroso-di-n-butylamine | |
| 1116547 | 1 | N-Nitrosodiethanolamine | |
| 55185 | 1 | N-Nitrosodiethylamine | |
| 62759 | 1,2,3 | N-Nitrosodimethylamine | |
| 86306 | 1,2 | N-Nitrosodiphenylamine | |
| 621647 | 1,2 | N-Nitroso-di-n-propylamine | |
| 759739 | 1 | N-Nitroso-N-ethylurea | |
| 60153493 | 1 | 3-(N-Nitrosomethylamino)propionitrile | |
| 64091914 | 1 | 4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone (NNK) | |
| 10595956 | 1 | N-Nitrosomethylethylamine | |
| 684935 | 1 | N-Nitroso-N-methylurea | |
| 615532 | 1 | N-Nitroso-N-methylurethane | |
| 4549400 | 1 | N-Nitrosomethylvinylamine | |
| 59892 | 1 | N-Nitrosomorpholine | |
| 16543558 | 1 | N-Nitrosornicotine | |
| 100754 | 1 | N-Nitrosopiperidine | |
| 930552 | 1 | N-Nitrosopyrrolidine | |
| 13256229 | 1 | N-Nitrososarcosine | |
| 1321126, 88722, 99081, 99990 | 2,3 | Nitrotoluenes | |
| 76062 | 3 | Nitrotrichloromethane; see Chloropicrin | |
| 10024972 | 3 | Nitrous oxide | |
| 111842 | 3 | Nonane | |
| 68224 | 1 | Norethisterone | |
| 51989 | 1 | Norethisterone acetate | |
| 2698411 | 3 | OCBM; see O-Chlorobenzylidene malonitrile | |
| 152169 | 4 | OMPA; see Schradan | |
| 303479 | 1 | Ochratoxin A | |
| 2234131 | 2,3 | Octachloronaphthalene | |
| 57749 | 3 | 1,2,4,5,6,7,8,8-Octachloro 3a,4,7,7a,-tetrahydro-4,7-methanoindane; see Chlordane | |
| 111659 | 3 | Octane | |
| 50282 | 1 | Oestradiol-17B | |
| 22966796 | 1 | Oestradiol mustard | |
| | 1 | Oestrogens, steroidal | |
| | 1 | Oestrogens, nonsteroidal | |
| 53167 | 1 | Oestrone | |
| | 1,2,3 | Oil mist, particulate | 21 |
| 2646175 | 1 | Oil orange SS | |
| | 1 | Oral contraceptives, certain Oestrogen-progestin combinations | |
| 20816120 | 3 | Osmium tetroxide | |
| 144627 | 3 | Oxalic acid | |
| 604751 | 1 | Oxazepam | |
| 301122 | 4 | Oxydemetonmethyl | |
| 7783417 | 3 | Oxygen difluoride | |
| 10028156 | 3 | Ozone | 22 |
| | 1,2,3 | PCB; see Polychlorobiphenyls | |
| 12674112 | 2 | PCB-1016; see Polychlorobiphenyls | |
| 11104282 | 2 | PCB-1221; see Polychlorobiphenyls | |
| 11141165 | 2 | PCB-1232; see Polychlorobiphenyls | |
| 53469219 | 2 | PCB-1242; see Polychlorobiphenyls | |
| 12672296 | 2 | PCB-1248; see Polychlorobiphenyls | |

| | | | |
|------------------|---------|---|----|
| 11097691 | 2 | PCB-1254; see Polychlorobiphenyls | |
| 11096825 | 2 | PCB-1260; see Polychlorobiphenyls | |
| 82688 | 2 | PCNB; see Quintozene (Pentachloronitrobenzene) | |
| 87865 | 2,3 | PCP; see Pentachlorophenol | |
| 6423434 | 3 | PGDN; see Propylene glycol dinitrate | |
| 122601 | 3 | PGE; see Phenyl glycidyl ether | |
| 7440053 | 2 | Palladium | |
| 794394 | 1 | Panfuran S; see Dihydroxymethylfuratrizine | |
| 8002742 | 3 | Paraffin wax fume | |
| 30525894 | 2 | Paraformaldehyde | |
| 2074502, 1910425 | 3,4 | Paraquat | |
| 10048325 | 1 | Parasorbic acid | |
| 56382 | 2,3,4 | Parathion | |
| 90653 | 1 | Penicillic acid | |
| 19624227 | 3 | Pentaborane | |
| 76017 | 1 | Pentachloroethane | |
| 1321648 | 2,3 | Pentachloronaphthalene | |
| 87865 | 2,3 | Pentachlorophenol | |
| 109660 | 3 | Pentane | |
| 107879 | 3 | 2-Pentanone | |
| 77474 | 2 | Perchlorocyclopentadiene; see Hexachlorocyclo-pentadiene | |
| 67721 | 3 | Perchloroethane; see Hexachloroethane | |
| 127184 | 1,2,3,5 | Perchloroethylene | |
| 594423 | 3 | Perchloromethyl mercaptan | |
| 7616946 | 3 | Perchloryl fluoride | |
| 72560 | 2 | Perthane | |
| 60102376 | 1 | Petasitenine | |
| 62442 | 1 | Phenacetin | |
| 532274 | 3 | Phenacyl chloride; see alpha-Chloroacetophenone | |
| 85018 | 2 | Phenanthrene | |
| 136403, 94780 | 1 | Phenazopyridine and its hydrochloride | |
| 156514 | 1 | Phenelzine sulphate | |
| 103037 | 1 | Phenicarbazide | |
| 50066 | 1 | Phenobarbital | |
| 108952 | 2,3 | Phenol | |
| | 2 | Phenolic compounds (4AAP) | |
| | 2 | Phenols | |
| 92842 | 3 | Phenothiazine | |
| 59861, 63923 | 1 | Phenoxybenzamine and its hydrochloride | |
| 122394 | 3 | n-Phenyylaniline; see Diphenylamine | |
| 92524 | 3 | Phenylbenzene; see Biphenyl | |
| 100470 | 2 | Phenyl cyanide; see Benzonitrile | |
| 106503 | 3 | p-Phenylenediamine | |
| 100414 | 2 | Phenylethane; see Ethylbenzene | |
| 101848 | 3 | Phenyl ether, vapor | 14 |
| 100425 | 2,3 | Phenylethylene; see Styrene, monomer | |
| 122601 | 1,3 | Phenyl glycidyl ether | 12 |
| 100630 | 3 | Phenylhydrazine | |
| 108985 | 3 | Phenyl mercaptan | |
| 135886 | 1 | N-Phenyl-2-naphthylamine | |
| 132274 | 1 | o-Phenylphenate, sodium; see | |

Sodium ortho-phenylphenate

638211 3 Phenylphosphine

57410 1 Phenytoin; see Diphenylhydantoin

298022 3,4 Phorate

4104144 4 Phosacetim

7786347 2,4 Phosdrin; see alpha-2-Carbomethoxy-1-methylvinyl dimethyl phosphate

75445 2,3 Phosgene

13171216 4 Phosphamidon

7803512 3 Phosphine

7664382 2,3 Phosphoric acid

563122 2 Phosphorodithioate; see Ethion

7723140 2,3 Phosphorus

10025873 2,3 Phosphorus oxychloride

10026138 3 Phosphorus pentachloride

1314803 2,3 Phosphorus pentasulfide

7719122 2,3 Phosphorus trichloride

121755 2 Phosphothion; see Malathion

1,2,3 Phthalate esters 36

85449 3 Phthalic anhydride

626175 3 m-Phthalodinitrile

1918021 1,3,4 Picloram

88891 3 Picric acid

83261 3 Pindone; see 2-Pivalyl-1,3-indandione

142643 3 Piperazine dihydrochloride

83261 3 2-Pivalyl-1,3-indandione (pindone)

744064 2,3 Platinum, metal

3 Platinum, soluble salts

1 Polybrominated biphenyls

1336363, 53449219, 1,2,3 Polychlorobiphenyls

11097691 2 Polychlorinated biphenyls; see Polychlorobiphenyls

2 Polycyclic Organic Matter; see Polynuclear aromatic hydrocarbons

1,2 Polynuclear aromatic hydrocarbons 23

3 Polytetrafluoroethylene, decomposition products

9003398 1 Polyvinyl pyrrolidone

3761533 1 Ponceau MX

3564098 1 Ponceau 3R

7440097 2 Potassium

7784410 2 Potassium arsenate; see Arsenic and arsenic compounds

10124502 2 Potassium arsenite; see Arsenic and arsenic compounds

7778509 2 Potassium bichromate; see Chromium compounds

23746341 1 Potassium bis(2-hydroxyethyl) dithiocarbamate

7758012 1 Potassium bromate

7789006 2 Potassium chromate; see Chromium compounds

151508 2 Potassium cyanide; see Cyanides, inorganic salts

1310583 2,3 Potassium hydroxide

7722647 2 Potassium permanganate

| | | | |
|----------------|-------|---|----|
| 366701 | 1 | Procabazine hydrochloride | |
| 57830 | 1 | Progesterone | |
| | 1 | Progestins | |
| 51025 | 1 | Pronetalol hydrochloride | |
| 120714 | 1 | 1,3-Propane sultone | |
| 709988 | 4 | Propanil | |
| 2312358 | 2,4 | Propargite | |
| 107197 | 3 | Propargyl alcohol | |
| 122429 | 2 | Propham | |
| 57578 | 1,3 | beta-Propiolactone | |
| 79094 | 2,3 | Propionic acid | |
| 123626 | 2 | Propionic anhydride | |
| 114261 | 2,3 | Propoxur; see 2-Isopropoxyphenyl N-methylcarbamate | |
| 109604 | 3 | n-Propyl acetate | |
| 71238 | 3 | n-Propyl alcohol | |
| 627123 | 1 | n-Propyl carbamate | |
| 115071 | 3 | Propylene | |
| 78875 | 2,3 | Propylene dichloride; see Dichloropropanes | |
| 6423434 | 3 | Propylene glycol dinitrate | |
| 107982 | 3 | Propylene glycol monomethyl ether | |
| 75558 | 3 | Propyleneimine; see 2-Methylaziridine | |
| 75569 | 1,2,3 | Propylene oxide | 12 |
| 627134 | 3 | n-Propyl nitrate | |
| 51525 | 1 | Propylthiouracil | |
| 74997 | 3 | Propyne; see Methylacetylene | |
| 107197 | 3 | 2-Propyn-1-ol; see Propargyl alcohol | |
| 87625625 | 1 | Ptaquiloside | |
| 129000 | 2 | Pyrene | |
| 121299, 121211 | 2 | Pyrethrins | |
| 8003347 | 3 | Pyrethrum | |
| 110861 | 3 | Pyridine | |
| 58140 | 1 | Pyrimethamine | |
| 120809 | 3 | Pyrocatechol; see Catechol | |
| 98011 | 2 | Pyromucic aldehyde; see Furfural | |
| 117359 | 1 | Quercetin | |
| 91225 | 2 | Quinoline | |
| 106514 | 3 | Quinone | |
| 82688 | 1 | Quintozene (Pentachloronitrobenzene) | |
| 121824 | 3 | RDX; see Cyclotrimethylenetrinitramine | |
| | 2 | Radionuclides | |
| 13982633 | 2 | Radium 226 | |
| 10043922 | 1 | Radon | |
| 86884 | 3 | Ratrack; see I-(1-Naphthyl)-2-thiourea | |
| 50555 | 1 | Reserpine | |
| 108463 | 2,3 | Resorcinol | |
| 480546 | 1 | Retrorsine | |
| 989388 | 1 | Rhodamine 6G | |
| 81889 | 1 | Rhodamine B | |
| 7440166 | 3 | Rhodium | 3 |
| | 3 | Rhodium compounds | |
| 36791045 | 5 | Ribavirin | |
| 13292461 | 1 | Rifampicin | |
| 299843 | 2,3 | Ronnel | |
| | 3 | Rosin core solder, pyrolysis products | 24 |

83794 3 Rotenone, commercial
 3 Rubber solvent (naphtha)
 8047674 1 Saccharated iron oxide
 94597 1 Safrole
 152169 4 Schradan
 2,3 Selenium and selenium compounds
 7783791 3 Selenium hexafluoride; see
 Selenium and selenium compounds
 7446084 2 Selenium oxide; see Selenium
 and selenium compounds
 563417 1 Semicarbazide hydrochloride
 2318185 1 Senkirkine
 136787 3 Sesone; see Sodium 2-
 (2,4-dichlorophenoxy) ethyl sulfate
 63252 2,4 Sevin; see Carbaryl
 68308349 1 Shale-oils
 1982496 2 Siduron
 7803625 3 Silane
 7631869 1,3 Silica 25, 35
 7803625 3 Silicon tetrahydride; see Silane
 7440224 2,3 Silver 3
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 7761888 2 Silver nitrate; see Silver compounds
 93721 2,4 Silvex; see 2,4,5 TP acid
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 7440235 2 Sodium
 7631892 2 Sodium arsenate; see
 Arsenic and arsenic compounds
 7784465 2 Sodium arsenite; see
 Arsenic and arsenic compounds
 26628228 3 Sodium azide
 10588019 2 Sodium bichromate; see
 Chromium compounds
 1333831 2 Sodium bifluoride; see
 Fluoride and fluoride compounds
 7631905 2,3 Sodium bisulfite
 7775113 2 Sodium chromate; see
 Chromium compounds
 143339 2,4 Sodium cyanide; see
 Cyanides, inorganic salts
 136787 3 Sodium 2-(2,4-dichlorophenoxy)-ethyl
 sulfate
 25155300 2 Sodium dodecylbenzene-sulfonate 9
 7681494 2 Sodium fluoride; see
 Fluoride and fluoride compounds
 62748 3,4 Sodium fluoroacetate
 16721805 2 Sodium hydrosulfide
 1310732 2,3 Sodium hydroxide
 7681529 2 Sodium hypochlorite
 7681574 3 Sodium metabisulfite
 124414 2 Sodium methylate
 7632000 2 Sodium nitrite
 132274 1 Sodium ortho-phenylphenate
 7558794, 10039324, 2 Sodium phosphate, dibasic
 10140655
 778544, 7601549, 2 Sodium phosphate, tribasic
 10101890, 10361894,

7758294, 10124568
10102188 2 Sodium selenite; see
Selenium and selenium compounds
1 Soots, tars, and certain mineral oils
52017 1 Spironolactone
7745893 4 Starlicide; see 3-Chloro-p-
toluidine hydrochloride
10048132 1 Sterigmatocystin
7803523 3 Stibine; see Antimony compounds
8052413 3 Stoddard solvent
18883664 1 Streptozotocin
7440246 2 Strontium
7789062 2 Strontium chromate; see
Chromium compounds
57249 2,3,4 Strychnine
100425 1,2,3 Styrene, monomer
96093 1 Styrene oxide
1395217, 9014011 3 Subtilisins (proteolytic enzymes)
108305 1 Succinic anhydride
842079 1 Sudan I
3118976 1 Sudan II
95067 1 Sulfallate
723466 1 Sulfamethoxazole
3689245 3,4 Sulfotepp; see Tetraethyl
dithiopyrophosphate
7704349 2 Sulfur
10025679 2 Sulfur chloride; see Sulfur
monochloride
7446095 3 Sulfur dioxide
2551624 3 Sulfur hexafluoride
7664939 2,3 Sulfuric acid
7790945 2 Sulfuric chlorohydrin; see
Chlorosulfonic acid
10025679 2,3 Sulfur monochloride
5714227 3 Sulfur pentafluoride
7783600 3 Sulfur tetrafluoride
2699798 3 Sulfuryl fluoride
35400432 3 Sulprofos
950378 4 Surpracide; see
O,O-Dimethyl phosphorodithioate,
S-ether with
4-(mercaptomethyl)-2-methoxy-
O2-1,3,4-thiadiazolin-5-one
1918189 2 Swep
8065483 4 Systox; see Demeton
93765 2,3,4 2,4,5-T; 2,4,5-Trichloro-phenoxyacetic
acid
6369966, 6369977, 2 2,4,5-T amines
1319728, 3813147
2545597, 93798, 2 2,4,5-T esters;
61792072, 1928478, 2,4,5-trichlorophenoxyacetic acid
25168154 esters
13560991 2 2,4,5-T salt; acetic acid, 2,4,5-
trichlorophenoxy- sodium salt
93721 2,4 2,4,5-TP acid; propanoic acid,
2-(2,4,5-trichlorophenoxy)-
32534955 2 2,4,5-TP ester; propanoic acid,

2-(2,4,5-trichlorophenoxy)-, isooctyl ester)

1746016 1,2 TCDD; see 2,3,7,8-Tetrachlorodibenzo-p-dioxin

78308 3 TCP; see Tri-o-cresyl phosphate

72548 2,4 TDE

584849 3 TDI; see Tolulene-2,4-diisocyanate

3689245 3 TEDP; see Tetraethyl dithionopyrophosphate

107493 2,3,4 TEPP; see Tetraethyl pyrophosphate

109999 3 THF; see Tetrahydrofuran

118967 3 TNT; see 2,4,6-Trinitrotoluene

115866 3 TPP; see Triphenyl phosphate

14807966 1,3 Talc 19

1 Tannic acid and tannins

7440257 2,3 Tantalum 3

1314610 3 Tantalum oxide

10028167 3 Tellurium 3

3 Tellurium compounds

7783804 3 Tellurium hexafluoride; see Tellurium compounds

3383968 3 Temephos; see Tetramethyl O, O'-thio-di-p-phenylene phosphorothiate

8001501 1 Terpene polychlorinates (Strobane6Registered)

3 Terphenyls

58220 1 Testosterone (and its esters)

315377 1 Testosterone enanthate

79276 3 1,1,2,2-Tetrabromoethane; see Acetylene tetrabromide

1746016 1,2 2,3,7,8-Tetrachlorodibenzo-p-dioxin

76119 3 1,1,1,2-Tetrachloro-2, 2-difluoroethane

72548 2 Tetrachlorodiphenylethane; see TDE

603206 1 1,1,1,2-Tetrachloroethane

76120 3 1,1,2,2-Tetrachloro-1,2- difluoroethane (FC-112)

79345 1,2,3 1,1,2,2-Tetrachloroethane; see Acetylene tetrachloride

127184 2,3,5 Tetrachloroethylene; see Perchloroethylene

56235 2,3 Tetrachloromethane; see Carbon tetrachloride

1335882 2,3 Tetrachloronaphthalene

961115 1 Tetrachlorvinphos

3689245 3,4 Tetraethyl dithiopyrophosphate (Sulfotepp)

78002 2 Tetraethyl lead; see Lead compounds

107493 2,3,4 Tetraethyl pyrophosphate

78104 3 Tetraethyl silicate; see Ethyl silicate

109999 3 Tetrahydrofuran

110918 3 Tetrahydro-4H-1-4-oxazine; see Morpholine

75741 3 Tetramethyl lead; see Lead compounds

681845 3 Tetramethyl silicate; see Methyl silicate

3383968 3 Tetramethyl O,0'-thio-di-p-phenylene

phosphorothioate (temephos)
 3333526 3 Tetramethyl succinonitrile
 (decomposition product of 2,2'-
 azobisisobutyronitrile)
 137268 3 Tetramethyl thiuran disulfide; see
 Bis(dimethylthiocarbamoyl)
 disulfide
 509148 3 Tetranitromethane
 7722885 3 Tetra sodium pyrophosphate
 479458 3 Tetryl
 7440280 2 Thallium 3
 2,3 Thallium compounds
 10031591, 7446186 2 Thallium sulfate; see
 Thallium compounds
 298022 4 Thimet; see Phorate
 62555 1 Thioacetamide
 28249776 4 Thiobencarb
 96695 3 4,4'-Thiobis(6-tert-butyl-m-cresol)
 115297 2 Thiodan; see Endosulfan
 139651 1 4,4'-Thiodianiline
 68111 3 Thioglycolic acid
 7719097 3 Thionyl chloride
 52244 1 Thiotepa; see Tris(1-aziridinyl)
 phosphine sulphide
 141902 1 Thiouracil
 62566 1 Thiourea
 137268 3 Thiram; see
 Bis(dimethylthiocarbamyl) disulfide
 7440315 2,3 Tin 3
 3 Tin compounds
 7440326 2 Titanium
 1836755 4 Tok; see 2,4-Dichlorophenyl-p-
 nitrophenyl ether
 119937 1 o-Tolidine; see 3,3'-
 Dimethylbenzidine
 108883 2,3 Toluene
 584849 1,3 Toluene-2, 4-diisocyanate
 26471625, 91087, 1 Toluene diisocyanates
 26471625, 584849
 108441 3 m-Toluidine
 106490 3 p-Toluidine
 95534 3 o-Toluidine; see o-Methylaniline
 636215 1 ortho-Toluidine; hydrochloride
 108883 2,3 Toluol; see Toluene
 10311849 4 Torak; see Dialifor
 8001352 1,2,3,4 Toxaphene
 14567738 3 Tremolite
 299752 1 Treosulfan
 299752 1 Treosulphan; see Treosulfan
 75252 3 Tribomomethane; see Bromoform
 126738 3 Tributyl phosphate
 78488 4 S,S,S-Tributyl phosphoro-trithioate
 150505 4 S,S,S-Tributyl phosphorotrithioite
 4 Tributyltin, coatings containing
 52686 2 Trichlorfon
 76039 3 Trichloroacetic acid
 120821 2,3 1,2,4-Trichlorobenzene; see

Chlorinated benzenes
 50293 3 1,1,1-Trichloro-2,2-bis
 (p-chlorophenyl) ethane; see DDT
 72435 3 1,1,1-Trichloro-2,2-bis
 (p-methoxyphenyl)-ethane;
 see Methoxychlor
 79005 1,2,3 1,1,2-Trichloroethane

 71556 2,3 1,1,1-Trichloroethane; see
 Methyl chloroform
 79016 3 Trichloroethene; see Trichloroethylene
 79016 1,2,3 Trichloroethylene
 75694 3 Trichlorofluoromethane; see
 Fluorotrichloromethane
 67663 2,3 Trichloromethane; see Chloroform
 594423 3 Trichloromethanethiol; see
 Perchloromethyl mercaptan
 1321659 2,3 Trichloronaphthalene
 76062 3 Trichloronitromethane; see Chloropicrin
 88062 2 2,4,6-Trichlorophenol; see
 Trichlorophenols
 25167822, 1,2 Trichlorophenols
 15950660, 933788,
 933755, 95954,
 609198, 88062
 136254 2 2-(2,4,5-Trichlorophenoxy)
 ethyl 2,2-dichloropropionate (Erbon)
 96184 3 1,2,3-Trichloropropane
 76131 2,3 1,1,2-Trichloro-1,2, 2-trifluoroethane
 (FC-113)
 78308 3 Tri-o-cresyl phosphate
 13121705 3 Tricyclohexyltin hydroxide; see
 Tin compounds
 27323417 2 Triethanolamine
 dodecylbenzenesulfonate 9
 121448 2,3 Triethylamine
 1954285 1 Triethylene glycol diglycidyl ether
 75638 3 Triflorobromomethane; see
 Bromotrifluoromethane
 1582098 1,2 Trifuralin
 552307 3 Trimellitic anhydride
 75503 2,3 Trimethylamine
 137177 1 2,4,5-Trimethylaniline
 3 Trimethylbenzene (all isomers)
 78591 3 3,5,5-Trimethyl-2-cyclohexene-
 1-one; see Isophorone
 121459 3 Trimethyl phosphite
 88891 3 2,4,6-Trinitrophenol; see Picric acid
 479458 3 2,4,6-Trinitrophenylmethyl nitramine;
 see Tetryl
 118967 3 2,4,6-Trinitrotoluene
 78308 3 Tri-ortho-cresyl phosphate;
 Tri-o-cresyl phosphate
 603349 3 Triphenylamine
 115866 3 Triphenyl phosphate
 68768 1 Tris(aziridinyl)-para-benzoquinone;

| | | | |
|---------------------|-------|---------------------------------------|------|
| | | (Triaziquone) | |
| 52244 | 1 | Tris(1-aziridinyl)phosphine sulfide | |
| 51183 | 1 | 2,4,6-Tris(1-aziridinyl)-s-triazine | |
| 38571732 | 1 | 1,2,3-Tris(chloromethoxy)propane | |
| 126727 | 1 | Tris(2,3-dibromopropyl) phosphate | |
| 786196 | 4 | Trithion; see Carbophenothion | |
| 62450060 | 1 | Trp-P-1 (Tryptophan-P-1) | |
| 62450071 | 1 | Trp-P2 (Tryptophan-P-2) | |
| 72571 | 1 | Trypan blue (commercial grade) | |
| 7440337 | 2,3 | Tungsten, Tungsten compounds | 3,34 |
| 8006642 | 3 | Turpentine | |
| 66751 | 1 | Uracil mustard | |
| 7440611 | 2,3 | Uranium | 3,34 |
| | 2,3 | Uranium compounds | |
| 541093 | 2 | Uranyl acetate; see Uranium compounds | |
| 10102064 | 2 | Uranyl nitrate; see Uranium compounds | |
| 51796 | 1 | Urethane | |
| 8030306 | 3 | VM & P (Varnish Makers & Painters) | |
| | | naphtha | |
| 110623 | 3 | Valeraldehyde | |
| 7440622 | 2 | Vanadium | |
| 1314621 | 2,3 | Vanadium pentoxide | 3 |
| 27774136 | 2 | Vanadyl sulfate | |
| 62737 | 2 | Vapona; see Dichlorvos | |
| 108054 | 2,3 | Vinyl acetate | |
| 100425 | 2 | Vinylbenzene; see Styrene, monomer | |
| 593602 | 1,3 | Vinyl bromide | |
| 75014 | 1,2,3 | Vinyl chloride | |
| 107131 | 2,3 | Vinyl cyanide; see Acrylonitrile | |
| 100403 | 1 | 4-Vinylcyclohexene | |
| 106876 | 1,3 | Vinyl cyclohexene dioxide | |
| 106876 | 1 | 4-Vinyl-1-cyclohexene diepoxide; | |
| | | see Vinyl cyclohexene dioxide | |
| 75354 | 1,2,3 | Vinylidene chloride | |
| 25013154 | 3 | Vinyltoluene | |
| 79005 | 1 | Vinyl trichloride; see 1,1,2- | |
| | | Trichloroethane | |
| 81812 | 3 | Warfarin | |
| 13983170 | 1 | Wollastonite | |
| 1330207, 95476, | 2,3 | Xylene, all isomers | |
| 106423, 108383 | | | |
| 1477550 | 3 | m-Xylene-a',a'-diamine | |
| 1300716 | 2 | Xylenol | |
| 1300738 | 3 | Xylidine | |
| 95476 | 2,3 | Xylol; see Xylene, all isomers | |
| 131793 | 1 | Yellow OB | |
| | 3 | Yttrium compounds | |
| 17924924 | 1 | Zearalenone | |
| 7440666 | 2 | Zinc | 3 |
| 557346 | 2 | Zinc acetate; see Zinc compounds | |
| 14639975, 14639986, | 2 | Zinc ammonium chloride; see Zinc | |
| 52628258 | | compounds | |
| 1332076 | 2 | Zinc borate; see Zinc compounds | |
| 7699458 | 2 | Zinc bromide; see Zinc compounds | |
| 3486359 | 2 | Zinc carbonate; see Zinc compounds | |
| 7646857 | 2,3 | Zinc chloride; see Zinc compounds | |
| 1350659 | 3 | Zinc chromate; see Chromium | |

| | | | |
|----------|-------|--|----|
| | | compounds | |
| | 2,3,4 | Zinc compounds | 28 |
| 557211 | 2 | Zinc cyanide; see Cyanides, inorganic salts | |
| 7783495 | 2 | Zinc fluoride; see Zinc compounds | |
| 557415 | 2 | Zinc formate; see Zinc compounds | |
| 7779864 | 2 | Zinc hydrosulfite; see Zinc compounds | |
| 7779886 | 2 | Zinc Nitrate; see Zinc compounds | |
| 1314132 | 3 | Zinc oxide fume; see Zinc compounds | |
| 127822 | 2 | Zinc phenolsulfonate; see Zinc compounds | |
| 1314847 | 2,4 | Zinc phosphide; see Zinc compounds | |
| 16871719 | 2 | Zinc silicofluoride; see Zinc compounds | |
| 7733020 | 2 | Zinc sulfate; see Zinc compounds | |
| 12122677 | | Zineb | |
| 7440677 | 2 | Zirconium | |
| 7440677 | 2,3 | Zirconium compounds, as Zr | |
| 13746899 | 2 | Zirconium nitrate; see Zirconium compounds | |
| 16923958 | 2 | Zirconium potassium fluoride; see Zirconium compounds | |
| 14644612 | 2 | Zirconium sulfate; see Zirconium compounds | |
| 10026116 | 2 | Zirconium tetrachloride | |

FOOTNOTES FOR HAZARDOUS SUBSTANCE LIST

1. Refers to solutions greater than or equal to 10%. Exempt when present in food or beverages, such as vinegar, apple cider, and wine, regardless of concentration.
2. Refers to water-soluble salts only; all other salts are exempt.
3. An MSDS must be provided under the following circumstances:
 - a) The metal is supplied as a fine powder.
 - b) The metal is in welding or brazing rods.
 - c) The metal may be melted with the generation of toxic fume.
 - d) Under normal use, toxic dust or fume is likely to be generated by any manufacturing process.
4. Exempt when in bonded form or when antimony compounds cannot be released due to cutting, grinding, heating, etc.
5. Except:
 - a) Exterior and interior coatings and laminating resins containing encapsulated asbestos fibers within such products.

b) Cold process asphalt roof coatings.

c) Non-friable encapsulated products such as floor tiles.

6. Any liquids; and products that could give rise to asphalt fume under normal conditions are included. Mechanical breakup of hardened asphalt surfaces is exempt.

7. Exempt when used in foods and feeds as a preservative.

8. Exempt except when present as free crystal/powder.

9. Exempt when in solution.

10. Exempt when in form where exposure to dust cannot occur.

11. Products that could give rise to coal tar pitch volatiles during normal use are included.

12. Exempt when part of a cured epoxy or rubber.

13. Refers to solutions greater than or equal to 25%. Beverage alcohol (as defined by Sections 23004 and 23005 of the California Alcoholic Beverage Control Act) in any concentration is exempt.

14. Exempt except when vapors or particulates are or can be formed due to work practices or procedures.

15. Exempt except when present as a dust.

16. Exempt when used as fuel.

17. Exempt except when inhalable dust and/or particulates are present or are generated through use of the product.

18. Refers to the water-soluble salts only; exempt when mixed in food or animal feed.

19. Exempt except when inhalable dust is present or can be generated through use.

20. Exempt when in mixture, suspension, or where inhalable dust or particles are not present or cannot be formed.

21. Exempt except where mineral oil mists can be generated in the ordinary use of the products, e.g. cutting oils

22. Occupational sources of ozone include, but are not limited to:

a) during oxidizing process of fine organic chemicals production (primarily ozolaic acid);

b) during operations involving high-intensity UV light (plasma torch operations, glass blowing, hot metal operations, photoengraving operations, use of mercury vapor lamps, direct copying machines, projecting equipment);

c) during operations involving high voltage electrical equipment (spectrographic and fluorometric apparatus, electroplating operations, high-volt linear accelerators, and electrostatic precipitators);

d) during operations involving ozonizing process in treatment of water, industrial waste, and sewage; during air purification;

e) during drilling, cutting, and welding operations utilizing laser radiation;

f) during bleaching operations (textiles, pulp, paper, waxes, starch, sugar, Teflon, and synthetic fibers), refining of mineral oils and their derivatives, processing of perfumes, vanillin, and camphor, aging and drying operations (wood, wines, whiskeys, varnishes, and printing inks);

g) during food preserving operations for mold and bacteria control;

h) during welding operations using inert gas shielded arc welding devices, bare wire arc welding; and

i) during manufacturing production of ozone.

23. Includes benzanthracenes, benzopyrenes, benzofluoranthrene, chrysenes, dibenzanthracenes, and indenopyrenes.

24. Refers to smoke and fume products given off during soldering.

25. Exempt except when inhalable particulates are present or can be generated.

26. Silver compounds existing in stable emulsions or suspensions, as in photographic film, are exempt.

27. Applicable to cotton fiber for use in industries or operations covered by General Industry Safety Order 5219, Cotton Dust.

28. Exempt when present in motor oils at 2.5% or below. Zinc oxide is exempt except when present as dust or when generated as a fume. Zinc stearate is exempt except when present as dust.

29. Refers to solutions greater than or equal to 4%.

30. Refers to solutions greater than or equal to 3%.

31. Refers to any mixture containing 0.1% or greater of this substance.

32. Refers to any mixture containing 0.02% or greater inorganic arsenic.
33. Refers to any mixture containing 0.1% or greater EDB.
34. Exempt when encapsulated in a capsule which meets the definition of "Special Form Materials" prescribed in 49 CFR 173.403(z).
35. Applies to silica sand and silica flour, but naturally occurring dirt and sand which has not been increased in silica concentration by beneficiation are exempt.
36. Except butyl benzyl phthalate.
37. Exempt except when crystalline powder is being manufactured or being used.
38. Fibrous glass is a mechanical irritant. There is no present scientific evidence as to the existence of any other adverse health effect.
39. Except Copper phthalocyanine crudes and pigments.

APPENDIX B: Definitions

Acid - Any chemical with a pH between 0 and 6. Acids are corrosive and cause severe burns.

Acute Effect - An effect on the human body that takes place soon after exposure. Example: Ethyl Alcohol ingestion may result in acute intoxication.

ACGIH - American Conference of Governmental Industrial Hygienists – A consensus organization comprised of professional industrial hygienists. ACGIH studies chemical exposures and publishes recommended occupational exposure limits for hundreds of chemicals and physical agents.

Aerosol - A fine aerial suspension of particles sufficiently small in size to confer some degree of stability from sedimentation. *Example: smoke or fog.*

Alkali - (or bases) Alkalis turn litmus paper blue and have pH values from 8 to 14. Any chemical substance which forms soluble soaps with fatty acids. They may cause severe burns to the skin.

ANSI - American National Standards Institute; a privately funded, voluntary membership organization that identifies industrial and public needs for national consensus standards and coordinates development of such standards. Many ANSI standards relate to safe design/performance of equipment, such as safety shoes, eyeglasses, smoke detectors, fire pumps and household appliances; and safe practices or procedures, such as noise measurement, testing of fire extinguishers, and flame arresters, industrial lighting practices, and the use of abrasive wheels.

Antidote - A remedy to relieve, prevent, or counteract the effects of a poison.

Asphyxiate - A vapor or gas, which can cause unconsciousness or death by suffocation (lack of oxygen). Most simple asphyxiates are harmful to the body only when they become so concentrated that they reduce oxygen in the air (normally about 21%) to dangerous levels (16% or lower). Some chemicals like carbon monoxide function as chemical asphyxiates by reducing the blood's ability to carry oxygen.

Auto-Ignition Temperature - The temperature at which a closed or nearly closed container must be heated in order for the flammable liquid, when introduced into the container, will ignite spontaneously or burn.

Boiling Point - The temperature at which a liquid changes to a vapor state, at a given pressure, usually expressed in degrees Fahrenheit at sea level pressure. Flammable materials with low boiling points generally present special fire hazards.

Cal/OSHA – The California Department of Industrial Relations, Division of Occupational Safety and Health. A State office that promulgates regulations that are designed to protect employees from workplace hazards.

Carcinogen - A substance or agent that can cause a growth of abnormal tissue or tumors in humans or animals. A material identified as an animal carcinogen does not necessarily cause cancer in humans. *Examples: Coal tar, which can cause skin cancer, and vinyl chloride, which can cause liver cancer.*

CHEMTREC – The Chemical Transportation Emergency Center is a national center established by the Chemical Manufacturers Association (CMA) in Washington DC to relay pertinent emergency information concerning specific chemicals on request. (CHEMTREC's 24-hour toll free phone number is 800-424- 9300). This number should only be used by those who respond to chemical transportation emergencies.

Chronic Effect - An adverse effect on a human body that can take months or years to develop after exposure. *Examples: Cancer*

Combustible - Capable of burning.

Combustible Liquid - Any liquid having a flashpoint at or above 100°F, but below 200°F.

Concentration - The relative amount of a substance when combined or mixed with other substances.

Example: 2 PPM hydrogen sulfide in air or a 50% caustic solution.

Corrosive - A liquid or solid that causes visible destruction or irreversible alterations in human skin tissue at the site of contact or, in the case of leakage from its packaging, a liquid that has a severe corrosion rate on steel. *Example: Sulfuric acid.*

CPSC - Consumer Products Safety Commission; Federal agency responsible for regulating hazardous materials when they appear in consumer goods.

Dermal Toxicity - Adverse effects resulting from skin exposure to a substance.

Dilution Ventilation - Air flow designed to dilute contaminants to acceptable levels.

Evaporation Rate - The rate at which a particular material will vaporize (evaporate) when compared to the rate of vaporization of a known material. The evaporation rate can be used in evaluating the health and fire hazards of a material and may be classified as Fast, Medium, or Slow.

Exposure - Any situation arising from work operations where an employee may ingest, inhale, absorb through the skin or eyes, or otherwise come into contact with a hazardous substance.

Flammability Limits - The range of gas or vapor concentration in the air that may ignite or explode if an ignition source is present.

Flammable Aerosol - An aerosol that when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening or a flashback (a flame extending back to the valve) at any degree of valve opening.

Flammable Gas - A gas that at ambient temperature and pressure, (1) forms a flammable mixture with air at a concentration of thirteen percent (13%) by volume or less; (2) forms a range of flammable mixtures with air, wider than twelve percent (12%) by volume, regardless of the lower limit.

Flammable Liquid - Any liquid having a flash point below 100°F, except any mixture having components with flash points of 100°F or higher, the total of which make up 99% or more of the total volume of the mixture.

Flammable Solid - A solid, other than a blasting agent or explosive, as defined in 29 CFR 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing processing or which can be ignited readily and when ignited, burns so vigorously and persistently as to create a serious hazard.

Flash Point - The temperature at which a liquid will give off enough flammable vapors to ignite if an ignition source is present.

Hazardous Chemical - Any chemical which presents either a health hazard or [physical hazard](#).

Health Hazard - A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. This may include chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, or agents which act on the hematopoietic system and agents which damage the lungs, skin, eyes or mucous membranes.

Insoluble - Incapable of being dissolved in a liquid.

Irritant - A substance which, by contact in sufficient concentration for a sufficient period of time, will cause an inflammatory response or reaction of the eye, skin, or respiratory system. The contact may be a single exposure or multiple exposures. *Some primary irritants: chronic acid, nitric acid, sodium hydroxide, calcium chloride, amines, metallic salts, chlorinated hydrocarbons, ketones and alcohols.*

LC - Lethal concentration; a concentration of a substance being tested which will kill a test animal.

LC50 - The concentration of a material in air which, on the basis of laboratory testing, is expected to kill 50% of a group of test animals when administered as a single exposure. Generally, more toxic materials have lower LC50s.

LD - Lethal dose; a concentration of a substance (dose) being tested which will kill a test animal.

LD50 - Lethal dose 50%; a single dose of a material which on the basis of laboratory tests, is expected to kill 50% of a group of test animals. The LD50 dose is usually expressed in milligrams or grams of material per kilogram of animal body weight. Generally, more toxic materials have lower LD50s.

LEL - Lower Explosive Limit - The lowest concentration (lowest percentage of the substance in air) that will produce a flash of fire when an ignition source (heat, arc, or flame) is present. At concentration lower than the LEL, there is not enough fuel to sustain combustion.

Mist - Suspended liquid droplets generated by condensation from the gaseous to the liquid state, or by breaking up a liquid into a dispersed state, such as splashing, foaming or atomizing. Mist is formed when a finely divided liquid is suspended in air.

NFPA - National Fire Protection Association; an international voluntary membership organization to promote/improve fire protection and prevention and establish safeguards against loss of life and property by fire. Best known for the National Fire Codes and familiar diamond-shaped label for hazards. See Section 8.0.

NIOSH - National Institute for Occupational Safety and Health (of the Public Health Service, U.S. Dept. of Health and Human Services (DHHS)); federal agency which recommends occupational exposure limits for various substances and assists OSHA with occupational safety and health investigations and research.

OSHA – The Occupational Safety and Health Administration - A subdivision of the U.S. Department of Labor that promulgates regulations designed to ensure the safety of employees in the workplace.

Oxidizer - A chemical other than a blasting agent or explosive as defined in 29 CFR 1910.109(a) that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

PEL - Permissible exposure limit; the legally enforced exposure limit for a substance established by OSHA regulatory authority. The PEL indicates the permissible concentration of air contaminants to which nearly all workers may be repeatedly exposed eight (8) hours a day, forty (40) hours a week, over a working lifetime (30 years) without adverse health effects.

Physical Hazard - A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, corrosive, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, self-reactive, self-heating, unstable (reactive) or water-reactive.

ppb - Parts per billion; a unit for measuring the concentration of a gas or vapor in air - parts (by volume) of the gas or vapor in a billion parts of air.

ppm - Parts per million; a unit for measuring the concentration of a gas or vapor in air - parts (by volume) of the gas or vapor in a million parts of air.

Pyrophoric - A chemical that will ignite spontaneously in air at a temperature of 130°F or below.

Reactivity - A description of the tendency of a substance to undergo chemical reaction with the release of energy.

Reproductive Toxin - Substances that affect the male and/or female reproductive systems and may impair the ability to have children.

Sensitizer - A substance which, on first exposure, causes little or no reaction in human or test animals but which, on repeated exposure, may cause a marked response not necessarily limited to the contact site.

Skin sensitization is the most common form of sensitization in the industrial setting, although respiratory sensitization to a few chemicals is also known to occur. *Examples: poison ivy and pollen.*

Solvent - A substance, usually a liquid, in which other substances are dissolved. The most common solvent is water.

Stability - An expression of the ability of a material to remain unchanged. For SDS purposes, a material is stable if it remains in the same form under expected and reasonable conditions of storage or use.

STEL - Short term exposure limit.

Systemic Poison - A poison, which spreads throughout the body, affecting all body systems, and organs. Its adverse effect is not localized in one spot or area.

Systemic Toxicity - Adverse effects caused by a substance, which affects the body in a general rather than local manner.

Target Organ Toxin - A toxic substance that attacks a specific organ of the body. *Example: overexposure to carbon tetrachloride can cause liver damage.*

Teratogen - A substance that may cause malformations in the fetus upon exposure. *Example: thalidomide.*

TLV - Threshold limit value; a term used by ACGIH to express the airborne concentration of a material to which nearly all persons can be exposed daily, without adverse effects. ACGIH expressed TLVs in three ways:

- **TLV-TWA:** The allowable time-weighted average concentration for a normal 8-hour work-day or 40-hour work-week.
- **TLV-STEL:** The short-term exposure limit or maximum concentration for a continuous 15-minute exposure period (maximum of four such periods per day, with at least 60 minutes between exposure periods, and provided that the daily TLV-TWA is not exceeded).
- **TLV-C:** The ceiling limit - the concentration that should not be exceeded even instantaneously.

Toxic Substance - Any substance which can cause acute or chronic injury to the human

body, or which is suspected of being able to cause diseases or injury under some conditions.

Toxicity - The sum of adverse effects resulting from exposure to a material, generally by mouth, skin, or respiratory tract.

Trade Secret - Any confidential formula pattern, process, device, information or compilation of information that is used in an employer's business and that gives the employer an opportunity to obtain an advantage over their competitors.

TWA - Time weighted average exposure.

UEL - Upper explosive limit or upper flammable limit of a vapor or gas. The highest concentration of a substance in air that will combust when an ignition source is present.

Unstable - A chemical which will vigorously polymerize, decompose, condense, or become self-reactive under conditions of shock, pressure, or temperature. These chemicals are also referred to as reactive.

Vapor - The gaseous form of a solid or liquid substance as it evaporates.

Vapor Density - The weight of a vapor or gas compared to the weight of an equal volume of air; an expression of the density of the vapor or gas. Materials that are lighter-than-air have vapor densities less than 1.0 (Examples: propane, hydrogen sulfide, ethane, butane, chlorine, sulfur dioxide) have vapor densities greater than 1.0. All vapors and gases will mix with air but lighter materials will tend to rise and dissipate (unless confined). Heavier vapors and gases are likely to concentrate closer to the ground.

Vapor Pressure - The pressure exerted by saturated vapor above its own liquid in a closed container. When quality control tests are performed on products the test temperature is usually 100°F and the vapor pressure is expressed as pounds per square inch (psig or psia). However, vapor pressures reported on SDSs are in millimeters of mercury (mmHg) at 68°F unless otherwise stated. Additional info:

- Vapor pressure of a substance at 100°F will always be higher than the vapor pressure of the substance at 68°F.
- 760 mmHg is equivalent to 14.7 pounds per square inch.
- The lower the boiling point of a substance, the higher its vapor pressure.

Water-Reactive - A chemical that reacts with water.

APPENDIX C: Globally Harmonized System (GHS) Pictograms

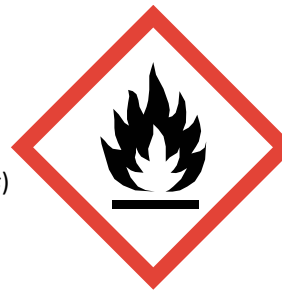
GHS

The Globally Harmonized System, or GHS, is a system for standardizing and harmonizing the classification and labeling of chemicals. The GHS enhances the basic goal of hazard communication, which is to ensure that employers, employees and the public are provided with adequate, practical, reliable and

comprehensible information on the hazards of chemicals, so that they can take effective preventive and protective measure for their health and safety. The system will continue to communicate hazard information, as well as protective measures, on labels and Safety Data Sheets (SDS, formerly MSDS) using the following pictograms:



Hazard Type: Physical
(Tipo de Riesgo: Fisicos)
Explosives (Explosivos)
Self-reactives (Autorreactivas)
Organic Peroxides (Peroxidos organicos)



Hazard Type: Physical
(Tipo de Riesgo: Fisicos)
Flammables (Inflamables)
Pyrophorics (Piroforicos)
Self-heating (Calentamiento espontaneo)
Emit flammable gas (Desprenden gases inflamables)
Self-reactives (Autorreactivas)
Organic peroxides (Peroxidos organicos)



Hazard Type: Physical
(Tipo de Riesgo: Fisicos)
Oxidizers (Comburentes)



Hazard Type: Physical
(Tipo de Riesgo: Fisicos)
Gases under pressure (Gases a presion)



Hazard Type: Physical and Health
(Tipo de Riesgo: Fisicos y de Salud)
Skin corrosion/burns (Corrosion o quemaduras cutaneas)
Eye damage (Lesion ocular)
Corrosive to metals (Corrosivo para los metals)



Hazard Type: Health
(Tipo de Riesgo: Salud)
Acute toxicity -fatal or toxic (Toxicidad aguda -mortal o toxica)



Hazard Type: Health
(Tipo de Riesgo: Salud)
Respiratory sensitizer (Sensibilizacion respiratoria)
Mutagenicity (Mutagenecidad)
Carcinogen (Carcinogeno)
Reproductive toxicity (Toxicidad para la reproduccion)
Target organ toxicity (Toxicidad especifica de organos diana)
Aspiration toxicity (Peligro por aspiracion)



Hazard Type: Health
(Tipo de Riesgo: Salud)
Acute toxicity - harmful (Toxicidad aguda -danino)
Irritant - skin and eye (Irritante -piel y ojos)
Skin sensitizer (Sensibilizador cutaneo)
Respiratory tract irritant (Irritante de vias respiratorias)
Narcotic effects (Efecto narcotico)
Hazardous to ozone layer -non-mandatory (Peligros pa la capa de ozono -no obligatorio)



Hazard Type: Environmental
(Tipo de Riesgo: Medio ambiente)
Aquatic toxicity (Toxicidad acuatica)



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