

## Hazardous Waste Management Guide



**Environmental Health & Safety**  
**Office of the Hazardous Materials Coordinator**  
443 Student and Business Services Building, ext.5711

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## **- Section 1 - Introduction**

Excellence in education and research is of primary importance at Humboldt State University. In support of this activity, the Office of Environmental Health and Safety (EH&S) provides for the disposal of hazardous chemical waste. This document contains University authorized policies and procedures for the safe accumulation, handling and packaging of such wastes.

The procedures described herein are necessary to comply with the various rules promulgated by regulatory agencies governing hazardous waste management and disposal. The California Environmental Protection Agency (CalEPA) regulates disposal of chemical wastes in a cradle-to-grave fashion. This means that our responsibility for the disposition of hazardous wastes generated by Humboldt State University can never be relinquished.

The California Department of Toxic Substances Control (DTSC), a division of CalEPA, is charged with oversight and enforcement of hazardous waste regulations at the state level while the Humboldt County Department of Health Services, Environmental Health Division provides direct oversight at the local level. Hazardous waste regulations are codified in the California Code of Regulations, Title 22, Division 4.5.

The commission of Environmental Health and Safety is to provide for the safe, legal, efficient and ecologically sound disposal of hazardous wastes. The cooperation of HSU waste generators will help us to fulfill this charge. Generators must abide by the guidelines set forth in this document in order to comply with the applicable regulations.

If you have any questions about this manual, or hazardous materials management in general, contact the Hazardous Materials Coordinator, Tom Manoli, at extension 5711 or email to: [tfm7001@humboldt.edu](mailto:tfm7001@humboldt.edu).

Finally, if you handle any potentially hazardous materials, learn what the associated hazards are and how to protect yourself from them. Companion documents detailing regulatory requirements, risks, handling precautions and other safety related information are listed below. These documents are available for review in the office of Environmental Health & Safety.

Humboldt State University Chemical Hygiene Plan  
Humboldt State University Radiation Safety Manual  
Humboldt State University Biosafety Manual

**- Section 2 -  
Environmental Health and Safety Information**

**Campus Emergency:** 911 (University Police Department)  
707.826.5555 (UPD non-emergency line)

**EH&S Staff:** R. Kevin Creed, Director  
Tom Manoli, Hazardous Materials Coordinator

**Office of the Director**

**Phone:** 707.826.5702

**Email Address:** [creed@humboldt.edu](mailto:creed@humboldt.edu)

**Office of the Hazardous Materials Coordinator**

**Phone:** 707.826.5711

**Email Address:** [tfm7001@humboldt.edu](mailto:tfm7001@humboldt.edu)

**Web Site:** <http://www.humboldt.edu/~ehs/>

- Home
- Web-Based Training
- Environmental Health
- Occupational Safety
- Useful Links
- Contact Info
- Staff & Faculty Link
- Calendar
- EHS Programs
- Calendar
- Safety Suggestion / Action Form
- Injury & Illness Prevention (IIP) Plan
- University Police Link

### - Section 3 - Definitions

**“Acutely hazardous waste” or “Acute hazardous waste”** means any hazardous waste classified as an acutely hazardous waste in article 4 of chapter 11 of this division. (Division 4.5 of Calif. Code Regulations Title 22)

**“Disposal”** means:

(a) the discharge, deposit, injection, dumping, spilling, leaking or placing of any waste or hazardous waste into or on any land or water so that such waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters;

(b) the abandonment of any waste.

**“Extremely hazardous material”** means a substance or combination of substances which, if human exposure should occur, may likely result in death, disabling personal injury or serious illness caused by the substance or combination of substances because of its quantity, concentration or chemical characteristics.

**“Extremely hazardous waste”** means any hazardous waste or mixture of hazardous wastes which, if human exposure should occur, may likely result in death, disabling personal injury or serious illness caused by the hazardous waste or mixture of hazardous wastes because of its quantity, concentration or chemical characteristics.

**“Generator” or “Producer”** means any person, by site, whose act or process produces hazardous waste identified or listed in chapter 11 of this division or whose act first causes a hazardous waste to become subject to regulation.

**“Hazardous waste”** is defined as follows:

A waste or combination of wastes which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either: a. Cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or b. Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed. or (b)(2) a. A waste that meets any of the criteria for the identification of a hazardous waste adopted by the department pursuant to Section 25141 [Title 22 regulations].

**“Hazardous waste”** includes, but is not limited to, RCRA hazardous waste. (i.e. meets the criteria of listing, igniability, corrosivity, reactivity and/or toxicity.)

**“Hazardous Waste Characteristics”**

- ▶ The waste is a **listed** waste in CCR Title 22, Div. 4.5, §66261.31, §66261.32, or §66261.33., or;
- ▶ The waste is **ignitable**. [22 CCR §66261.21] A liquid (other than an aqueous solution containing less than 24% alcohol by volume) with a flash point equal to or less than 140°F (60°C). A non-liquid, capable under standard temperature and pressure of causing fire by means of friction, absorption of moisture, or spontaneous chemical changes and which, when ignited, burns so vigorously and persistently that it creates a hazard. A flammable, compressed gas. An oxidizer., or;
- ▶ The waste is **corrosive**. [22 CCR §66261.22] It is aqueous and has a pH equal to or less than 2, or equal to or greater than 12.5, or by mixture with an equivalent weight of water it produces a solution with those pH characteristics. It is a liquid (or when mixed with an equivalent weight of water it produces a liquid) and corrodes steel (SAE 20) at a rate greater than 0.250 inch (6.35 millimeters) per year., or;
- ▶ The waste is **reactive**. [22 CCR §66261.23] Is normally unstable and readily undergoes violent change without detonating. Reacts violently with water. Form potentially explosive mixture with water. Generates toxic gases, vapors or fumes when mixed with water and does so in a quantity sufficient to present a danger

to human health or the environment. Is a cyanide- or sulfide-bearing waste which, when exposed to pH conditions between 2 and 12.5 can generate toxic gases, vapors or fumes. Is capable of detonation, explosive reaction or explosive decomposition., or;

- ▶ The waste is **toxic**. [22 CCR §66261.24] It is a waste that, when analyzed by a state certified laboratory, is determined to exceed the regulatory levels established for the inorganic or organic chemicals found in Table II or Table III of 22 CCR §66261.24(a)(2) Is a waste that contains the California listed carcinogenic substances in single or combined concentration of 0.001% by weight by testing or other information available. Is determined by biological tests to be more toxic than any of the following:
  - an acute oral LD<sub>50</sub> less than 5,000 mg/Kg;
  - an acute dermal LD<sub>50</sub> less than 4,300 mg/Kg;
  - an acute inhalation LC<sub>50</sub> less than 10,000 ppm; and
  - an acute aquatic 96-hour LC<sub>50</sub> less than 500 mg/L.or it can cause illness or death if inhaled, swallowed or absorbed through the skin.

**“Management” or “hazardous waste management”** means the handling, storage, transportation, processing, treatment, recovery, recycling, transfer and disposal of hazardous waste.

**“Non-RCRA hazardous waste”** means all hazardous waste regulated in the State, other than RCRA hazardous waste as defined in this section. A hazardous waste is presumed to be a RCRA hazardous waste, unless it is determined pursuant to section 66261.101 that the hazardous waste is a non-RCRA hazardous waste.

**“Onsite”** means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing as opposed to going along, the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which that person controls and to which the public does not have access, is also considered onsite property.

**“RCRA hazardous waste”** means all waste identified as a hazardous waste in Part 261 (commencing with section 261.1) of subchapter I of chapter 1 of Title 40 of the Code of Federal Regulations and appendices thereto.

**“Release”** means:

- (a) Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.
- (b) “Release” does not include any of the following:
  - (1) Any release which results in exposure to persons solely within a workplace, with respect to a claim such exposed persons may assert against their employer.
  - (2) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel or pipeline pumping station engine.
  - (3) Release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 (42 U.S.C. 2011, et seq.), if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 2210 of Title 42 of the United States Code or, for the purposes of section 104 of the federal act (42 U.S.C. 9604) or any other response action, any release of source byproduct, or special nuclear material from any processing site designated under section 7912(a)(1) or 7942(a) of Title 42 of the United States Code, which sections are a part of the Uranium Mill Tailings Radiation Control Act of 1978.
- (d) The normal application of fertilizer, plant growth regulants and pesticides.  
For the purposes of chapters 14 and 15, “Repaired” means that equipment is adjusted, or otherwise altered, to eliminate a leak.

**“Storage”** means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of or stored elsewhere.

**“Treatment”** means any method, technique, or process which changes or is designed to change the physical, chemical, or biological character or composition of any hazardous waste or any material contained therein, or removes or reduces its harmful properties or characteristics for any purpose including, but not limited to, energy recovery, material recovery or reduction in volume.

**“Waste”** is defined in the California Health and Safety Code (§25122) as follows:

Any material for which no use or reuse is intended and which is to be discarded. Any recyclable material. Any material that poses a threat to public health or the environment, and which meets either or both of the following conditions: Is mislabeled or not adequately labeled, unless the material is correctly labeled or adequately labeled within 10 days after the material is discovered to be mislabeled or inadequately labeled. Is packaged in deteriorated or damaged containers, unless the material is contained in sound or undamaged containers within 96 hours after the containers are discovered to be deteriorated or damaged.

**- Section 4 -  
Hazard Determination**

It is the responsibility of every employee of Humboldt State University to determine whether or not the wastes they produce are hazardous as defined by the California Health and Safety Code and the California Code of Regulations.

This section will explain the definitions of “waste” and “hazardous waste” and how these definitions apply to your operations. In most cases, by following the steps outlined below, you should be able to classify your wastes as hazardous or non-hazardous. Code sections will be cited where applicable

**Step 1.** Determine whether or not the material is a waste.

The California Health and Safety Code (§25122) defines waste as:

- Any material for which no use or reuse is intended and which is to be discarded.
- Any recyclable material.
- Any material that poses a threat to public health or the environment, **and** which meets either or both of the following conditions:
  - ✓ Is mislabeled or not adequately labeled, unless the material is correctly labeled or adequately labeled within 10 days after the material is discovered to be mislabeled or inadequately labeled.
  - ✓ Is packaged in deteriorated or damaged containers, unless the material is contained in sound or undamaged containers within 96 hours after the containers are discovered to be deteriorated or damaged.

It should be noted that materials may inadvertently become wastes through mismanagement. Allowing labels to become unreadable, containers to deteriorate, or simply abandoning materials can cause them to be classified as wastes. A waste determination, in most cases, is made based on whether the product is still fit for its intended use.

**Step 2.** Determine whether or not the waste is a hazardous waste.

- Check to see if the waste is listed in Title 22 of the California Code of Regulations, Division 4.5, Sections 66261.31, 66261.32, or 66261.33. (Appendix B)
- If the waste is not listed, determine if it possesses any of the following characteristics:

1. The waste is ignitable. A liquid with a flash point equal to or less than 140°F (60°C). A non-liquid, capable under standard temperature and pressure of causing fire by means of friction, absorption of moisture, or spontaneous chemical changes and which, when ignited, burns so vigorously and persistently that it creates a hazard. A flammable, compressed gas. An oxidizer.
2. The waste is corrosive. It is aqueous and has a pH  $\leq 2$ , or  $\geq 12.5$ , or is capable of corroding SAE 20 steel at a rate greater than  $\frac{1}{4}$  inch per year.
3. The waste is reactive. Is normally unstable and readily undergoes violent change without detonating. Reacts violently with water. Forms a potentially explosive mixture with water. Generates toxic gases, vapors or fumes when mixed with water and does so in a quantity sufficient to present a danger to human health or the environment. Is a cyanide- or sulfide-bearing waste which, when exposed to pH conditions between 2 and 12.5 can generate toxic gases, vapors or fumes. Is capable of detonation, explosive reaction or explosive decomposition.
4. The waste is toxic. It is a waste that, when analyzed by a state certified laboratory, is determined to exceed the regulatory levels established for the inorganic or organic chemicals found in Table II or Table III of CCR Title 22, §66261.24(a)(2) (Appendix D) Is a waste that contains the California listed carcinogenic substances in single or combined concentration of 0.001% by weight by testing or other information available. Is determined by biological tests to be more toxic than any of the following:
  - an acute oral LD<sub>50</sub> less than 5,000 mg/Kg;
  - an acute dermal LD<sub>50</sub> less than 4,300 mg/Kg;
  - an acute inhalation LC<sub>50</sub> less than 10,000 ppm; and
  - an acute aquatic 96-hour LC<sub>50</sub> less than 500 mg/L.or it can cause illness or death if inhaled, swallowed or absorbed through the skin.

In most cases the hazard characteristics can be determined by referring to the Material Safety Data Sheet for each of the waste material's chemical components. If one component of the waste material is determined to be hazardous then the entire waste is hazardous.

**Step 3.** Determine if the hazardous waste is an extremely hazardous waste. (See Appendix A)

If the waste is determined to be extremely hazardous, a note to that effect should be made on the Hazardous Waste Transfer Request or hazardous waste label (See Section 5).

- Section 5 -  
**On Site Management**

**Labeling**

Each container of hazardous waste must be labeled with the words "**Hazardous Waste**". In addition hazardous waste labels must also include the following:

1. **Accumulation start date** - this is the date when the first drop of waste hits the bottom of the container or the hazardous material is declared to be a waste.
2. **Generator's name** - this should be the name of the person who created the waste or the person most knowledgeable about the composition and nature of the waste.
3. **Generator's address** - this is the location of the site where the waste was accumulated. Include the name of the building, department and room where accumulation occurred. (Indicate where the waste can be picked up if other.)
4. **Type of Waste** - Whether the waste is chemical, radioactive or mixed (a combination of the two).
5. **The composition of the waste** - In the case of wastes that are mixtures of chemicals, the percentage of each component should be listed as accurately as can be determined. Components under 0.5% may be listed as "trace".
6. **Physical state of the waste** - gas, liquid or solid.
7. **Waste volume** - Include the container size if the container is only partially filled.  
(E.g. Quantity:   1   Units:   liter  )
8. **Hazard warnings** - warning words must clearly indicate the physical and chemical hazards associated with the waste. (E.g., corrosive, ignitable, water reactive, etc.) All hazards associated with the waste must be indicated.

**Accumulation Time**

Hazardous wastes shall not be accumulated at the site of generation/accumulation for longer than 30 days. While the regulations allow an accumulation time of up to 90 days for most wastes generated on campus, it is EH&S's policy that wastes must not be accumulated by generators for longer than 30 days. Hazardous wastes are removed from campus by our contracted hauler every 60 days. If a generator holds waste for longer than the 30 day time limit it is possible that the waste may exceed the campus limit of 90 days. The penalties for exceeding the 90 day limit are severe and it is in our best interest not to violate this limit.

**Waste Accumulation**

Hazardous wastes must be collected and stored in containers that can be sealed, are of adequate strength to hold the waste, and constructed of a material that is compatible with the waste. The containers must be kept in a secured area that is protected from the weather and unauthorized persons. Liquid wastes greater than five gallons in volume must have a secondary containment device in place. Lids must be kept tightly secured except to add or remove waste.

The waste accumulation site must be located so as to provide easy access and a quick route of escape should a spill occur. It is required that medical waste accumulation areas be designated with a sign as describe in the Medical Waste Management Act (Refer to the EH&S Medical

Waste Management Plan) and held in a secured area separate from hazardous waste.

### **Waste Compatibility**

Hazardous wastes must be segregated according to their hazard characteristics. The U.S. Department of Transportation (DOT) utilizes a hazard categorization system that places hazardous materials into nine categories. This system can be used as a starting point to help generators segregate incompatible hazardous wastes, however, additional segregation may be necessary.

The following categories will be subdivided as necessary to allow for complete segregation of hazardous wastes according to their chemical characteristics:

- Explosives - All explosive materials shall be stored separately from all other chemical wastes and preferably away from places where people are normally located.
- Gases - Gas cylinders must be segregated from all other wastes, may not be stored in an enclosure that does not allow ventilation, in an upright position (unless designed to be stored otherwise), with the valve protection device in place, and in a manner that will prevent them from falling if they are hit or during an earthquake. Oxygen must be stored at least twenty (20) feet from combustible materials.
- Flammable liquids - Must be kept clear of oxidizers and all gases. Particular note should be made of possible ignition sources in the accumulation area.
- Flammable solids - Generally these may be stored with flammable liquids unless they are water reactive or pyrophoric (air reactive) materials.
- Oxidizers - Must be kept clear of flammables.
- Toxics - Most wastes are toxic to some degree. Toxic wastes that do not fall into any of the other categories listed here may be accumulated together.
- Radioactive materials - Radioactive waste materials are managed by the campus Radiation Safety Officer, Kevin Creed, and must be segregated from hazardous and medical waste streams.
- Corrosives - Corrosives may be oxidizing, reducing (flammable) acids and/or bases. All acids must be segregated from bases. Flammable acids, such as glacial acetic acid, must be kept away from oxidizing acids such as nitric acid.
- Universal wastes - should be kept separate from other hazardous wastes as these can be accumulated for up to one year.
- Sulfides and cyanides - Must be kept away from corrosives.
- Asbestos - May be stored with toxics.
- Others - consult the Hazardous Materials Coordinator at extension 5711 or [tfm7001@humboldt.edu](mailto:tfm7001@humboldt.edu).

### **Containment of Hazardous Waste**

Departments are responsible for procuring containers needed for waste accumulation and packaging. Environmental Health and Safety supplies a limited number and variety of containers for chemical waste collection. (Contact the Haz Mat Coordinator)

Original hazardous materials containers may be reused to collect the same type of waste material. For example, many solvents and acids come packaged in 1-gallon or smaller glass bottles which are suitable for waste collection. Remember, it is important that you only introduce waste into a container that once held a hazardous material that is compatible with the original material.

### **EH&S Containers**

- 5-gallon steel drum-closed head
- 8-gallon polyethylene drum (blue container for photo waste only)
- 30-gallon fiber drum-open head
- 30-gallon steel drum-open head
- 30-gallon steel drum-closed head
- 55-gallon fibre drum-open head
- 55-gallon steel drum-open head (specify if to be used for oil filter collection)
- 55-gallon steel drum-closed head (lined and unlined)
- ½-gallon poly cubitainers
- 1-gallon poly cubitainers
- 5-gallon poly cubitainers
- 5-gallon fiber hat boxes

It should be noted that many of the above containers may need to be ordered when needed so it is advisable for generators to notify EH&S ahead of the intended need time.

### **Packaging Procedures**

Collect small volumes of waste in your own containers. Volumes larger than 5-gallon can be collected in containers provided by EH&S. Solid clean-up debris and certain solid wastes e.g., contaminated gloves, contaminated glassware, paper, etc., can be packaged in cardboard boxes lined with two plastic bags. **Keep liquid and solid wastes separate.**

### **NOTE!**

- **Do NOT mix incompatible materials in the same container.**
- **Do NOT put corrosive or reactive chemicals in metal cans.**

For liquids, fill containers to about 90% of container volume. **Do NOT fill containers to the top.** Leave at least 2 inches of space in 5-gallon liquid waste containers to allow for liquid expansion and pumping. Make sure the caps on all cans and bottles have gaskets and are tightly secured before the pick up.

### **Inspections**

Hazardous waste accumulation sites must be inspected weekly. Inspectors must look for the following:

- ▶ Leaking or deteriorated containers.
- ▶ Damaged or deteriorated labels.
- ▶ Containers that are past the 30 day accumulation limit.

- ▶ Unauthorized additions to the accumulation inventory.
- ▶ Aisles clear of obstructions and wide enough to admit waste handling and/or emergency response equipment.
- ▶ Personal Protective Equipment present and in good repair.
- ▶ Spill response equipment in place and of proper type and sufficient amount to handle any spill/release.

## - Section 6 - Universal Wastes

### Universal Waste

Universal wastes are hazardous wastes that are more common and pose a lower risk to people and the environment than other hazardous wastes. Federal and State regulations identify universal wastes and provide simple rules for handling, recycling, and disposing of them. The regulations, called the “Universal Waste Rule,” are in the California Code of Regulations , title 22, division 4.5, chapter 23.

All universal wastes are hazardous wastes and, without the new rules, they would have to be managed under the same stringent standards as other hazardous wastes. Also, universal wastes are generated by a wide variety of people rather than by the industrial businesses that primarily generate other hazardous wastes.

Not all waste products of a particular type are hazardous waste and universal waste. For example, waste thermometers that contain mercury are universal wastes but waste thermometers that contain alcohol are neither hazardous waste nor universal waste.

The following items are universal wastes when they are no longer useful or are discarded:

1. **Mercury thermostats.** These thermostats contain small glass capsules of mercury, a shiny liquid metal, to make electrical contact. Modern electronic thermostats do not contain mercury.
2. **Batteries.** Universal waste batteries include rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, small sealed lead acid batteries (burglar alarm and emergency light batteries), most alkaline batteries, carbonzinc batteries, and any other batteries that exhibit a characteristic of a hazardous waste.

*NOTE: Spent automotive-type lead acid storage batteries are not universal waste. They are hazardous wastes that require management as specified in CCR 22, Div. 4.5, chap. 16, article 7.*

3. **Lamps.** Universal waste lamps include fluorescent tubes, high intensity discharge lamps, sodium vapor lamps, and any other lamps that exhibit a characteristic of a hazardous waste.
4. **Non-empty aerosol cans.** The Legislature added non-empty aerosol cans to the list of universal wastes in 2001.
5. **Mercury switches.** Two different types of mercury switches are universal wastes:
  - Motor vehicle light switches that contain mercury. Health and Safety Code section 25214.6 designates motor vehicle light switches (automatic hood and trunk light switches) containing mercury as universal wastes once they are removed from vehicles. As of January 2005, vehicles that contain the switches will also be considered hazardous waste until the mercury light switches are removed.
  - Non-automotive mercury switches and products that contain them, when they are recycled as scrap metal. These switches include thermostats and tip switches in portable heaters, washing machine out-of-balance switches, silent wall switches, and other mercury-containing switches and products containing them. As of February 9, 2006, all discarded products that contain mercury switches will be

universal wastes.

6. **Mercury thermometers**, including fever thermometers.
7. **Pressure or vacuum gauges** that contain mercury such as U tube manometers, barometers, and sphygmomanometers (blood pressure meters.)
8. **Dilators and weighted tubing**. These medical devices contain mercury.
9. **Rubber flooring that contains mercury**. Older gymnasium floors that were poured in place to form indoor tracks and gymnastic areas frequently contain mercury.
10. **Novelties that contain mercury or mercury batteries** such as some singing greeting cards, flashing athletic shoes, jewelry, and other devices. As of January 1, 2004, all novelties with added mercury are considered hazardous and universal wastes.
11. **Mercury gas flow regulators**. These older gas flow regulators are managed exclusively by natural gas utilities.
12. **Counterweights and dampers**, including devices that use pouches of high density mercury to dampen shaking on hunting bows and snow skis or to absorb recoil on shotguns.
13. **Dental amalgam** tooth filling materials including waste amalgam, bits and pieces from chairside traps, and spent wastewater filters.
14. **Consumer electronic devices**. Electronics that exhibit hazardous characteristics. Some examples are cell phones, game consoles, computer disc drives, and computers (ch. 11, art. 3).
15. **Cathode ray tubes**. Waste cathode ray tubes (CRTs), such as television picture tubes and nonflat panel computer monitors, are universal wastes with special management standards.
16. **Gauges**. Vacuum and pressure gauges that contain mercury, including blood pressure gauges, barometers, and manometers.

To properly manage Universal waste a person must do all of the following:

- Send all universal waste to a facility authorized to collect, recycle or dispose of universal waste.
- Do not dispose of universal waste to the trash.
- Do not accumulate more than 5,000 kilograms of universal waste at any one time.
- Do not store universal waste for longer than one year after generating or receiving the waste.
- Document the length of time you have accumulated universal waste by labeling it with the accumulation start date.
- Label or mark universal wastes, or containers or packages of universal waste, to identify their types.
- Clean up any releases such as leaking batteries or broken fluorescent tubes. Repackage the damaged universal waste and manage it as universal waste. Manage any other materials generated, such as cleanup supplies and contaminated soil, as hazardous wastes if they are identified as hazardous waste.
- Train employees in proper universal waste management including handling, packaging, storing and labeling the universal waste, as well as how to respond to releases.

Note: Most of the above handling requirements are the responsibility of EH&S, not the generator. For more information contact the Hazardous Materials Coordinator.

**- Section 7 -  
Requesting a Hazardous Waste Pick-up**

**Hazardous Waste Transfer Request Form**

The Hazardous Waste Transfer Request form developed and supplied by Environmental Health and Safety is a four part form that both satisfies the labeling requirements promulgated in Title 22 of the California Code of Regulations and provides a mechanism for generators to request that their waste be collected by EH&S.

To use the form generators should follow these steps:

- Step 1. Fill in all of the applicable spaces on the form following the directions on the reverse side of the form.
- The ACCUMULATION START DATE must be the date that waste is first introduced into the container or the material is determined to be waste.
  - WASTE GENERATOR is the name of the person who generated the waste or is responsible for the waste. Provide the name of the department the generator is associated with and the building name and room number where the waste can be collected by EH&S.
  - TYPE OF WASTE will help EH&S to segregate the waste as chemical, radiological or mixed.
  - The LIST COMPONENTS List the chemical(s) that make up the waste and the percentage composition. Do not list reaction products unless you are sure they are present and know the percentages.
  - PHYSICAL CHARACTERISTICS provides volume information and whether the waste is a solid, liquid or gas. Volume information must include the quantity (a number) and the units (grams, pounds, liters, etc.). Use the container size for volume rather than the amount of material in the container.
  - The HAZARD CHARACTERISTICS section provides warnings about the hazards associated with the waste.
- Step 2. Sign and date the form and remove the white and pink copies. The yellow and card copies should then be attached to the waste container. The white copy should be sent to “Tom Manoli, Environmental Health and Safety SBS 305” via campus mail. This serves to notify EH&S that your waste is ready for pick up. The pink copy may be retained for the generator’s records or discarded as desired.
- Step 3. Manage the waste on site according to the requirements described above until EH&S can collect it. Turn around times vary according to work loads but are usually not more than 5 days.

## - Section 8 - Spill Response

### **Emergency Response Training**

All persons who generate hazardous wastes must be trained in emergency response procedures to at least the First Responder Awareness level (FRA). First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. First responders at the awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:

1. An understanding of what hazardous substances are, and the risks associated with them in an incident.
2. An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.
3. The ability to recognize the presence of hazardous substances in an emergency.
4. The ability to identify the hazardous substances, if possible.
5. An understanding of the role of the first responder awareness individual in the employer's emergency response plan (including site security and control), and the U. S. Department of Transportation's Emergency Response Guidebook.
6. The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

Persons who are responsible for management of hazardous wastes and their accumulation sites must be trained to the First Responder Operations (FRO) level. First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level; and the employer shall so certify:

1. Knowledge of the basic hazard and risk assessment techniques.
2. Know how to select and use proper PPE provided to the first responder operational level.
3. An understanding of basic hazardous materials terms.
4. Know how to perform basic control, containment, and/or confinement operations and rescue injured or contaminated persons within the capabilities of the resources and PPE available with their unit.
5. Know how to implement basic equipment, victim, and rescue personnel decontamination procedures.
6. An understanding of the relevant standard operating procedures and termination procedures.

## **Emergency Response Facilities**

Hazardous waste accumulation sites must have, at a minimum, the following:

- A secure area that will exclude unauthorized persons from accessing the waste.
- A communications device to call for assistance in the event of an emergency.
- Spill containment and absorbent materials sufficient to control any release of the waste materials.
- Adequate aisle space to provide access to any waste container for emergency responders and their equipment.
- Proper personal protective equipment to protect personnel against any of the waste materials in question.

## **Emergency Response Planning**

An emergency response plan should be developed to address any size and type release that may occur at the accumulation site. The complexity of the plan should be tailored to the types and volumes of waste handled at the site. The following items should be considered when writing the plan:

- Pre-emergency planning & training specific to the wastes on site.
- Levels of Emergency Response
- Lines of Authority & Communication
- Site Layout & Prevailing Weather Conditions
- Personnel Roles
- Emergency Response Procedures (SOP's)
- Procedures for Reporting Incidents to Government Agencies
- Hazards Associated With Use of, and Emergency Response to, Select Agents and/or Toxins
- Planning & Coordination With Outside Parties
- Site Security & Control
- Evacuation Routes & Procedures / Safe Distances & Places of Refuge
- Decontamination
- Emergency Medical Treatment & First Aid
- Critique of Incident Response & Follow-up
- Personal Protective & Emergency Equipment

## **SIN**

During any hazardous materials emergency REMEMBER TO **S.I.N.!**

**Safety** - Yours and others, first, last and always.

**Isolate and Deny Entry** - Move yourself and everyone out of the spill area and close doors.

**Notify** - **CALL UNIVERSITY POLICE 911** (Do not call EH&S!)

**- Section 9 -  
Hazardous Waste Minimization**

Printed on each California hazardous waste shipping manifest is a certification statement which reads:

*If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of the waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.*

Humboldt State University yearly produces hazardous waste just below the large quantity generator threshold. This means that we are required to make *a good faith effort to minimize waste generation*. At the CSU system level the CSU system-wide hazardous waste contract addresses, in part, this mandate by requiring the contracted waste hauler to select disposal sites that give priority to recycling or thermal destruction methods first and excluding, when possible, land disposal as an option.

EH&S provides support to departments to assist them in their waste minimization efforts. Support may be in the form of consultations regarding processes, periodic bulletins or notices indicating current waste production levels, meetings with waste generators to discuss specific waste streams and ways to reduce their volumes, etc.

Waste minimization is a dynamic, ongoing process that involves the entire campus community. It is one of the most important facets of a complete hazardous waste management program.

To promote minimization, generators should do the following:

- Never order more of a hazardous material than you will use in normal operations during a one or two year period.
- Do not allow materials to go past their expiration date.
- Make sure hazardous materials are properly containerized and labeled.
- Substitute low hazard materials for high hazard materials whenever possible.
- Microscale operations when possible.
- Plan operations to prevent waste or incorrect use of materials.
- Others?

**- Section 10 -  
Unknown/Unidentified Hazardous Wastes**

Occasionally a hazardous waste is “discovered” that is unlabeled and its history is untraceable. On other occasions the label has become deteriorated or damaged and is unreadable. Whatever the cause, when a waste material loses its identity the waste is designated an “unknown” and must be handled as though it possesses all of the hazard characteristics until demonstrated otherwise. In other words, the waste is assumed to be ignitable, corrosive, reactive and toxic.

In some cases a preliminary examination may be able to give the hazardous waste generator some clues as to the hazard characteristics of the waste but caution must be taken until a firm characteristic profile has been obtained.

The disposal of “unknown’s” is expensive and risky. The ideal situation is to make sure wastes do not lose their identity.

To prevent a hazardous material from becoming an unknown waste, it is prudent to adhere to the following guidelines:

- ▶ Check chemical inventories regularly for deteriorated labels or containers. Replace labels before they become unreadable.
- ▶ Rotate your inventory so that older materials are used first.
- ▶ Request a hazardous waste pickup for expired or unwanted chemicals.
- ▶ Clear out and request pickup for old “stashes” of chemicals that have not been used for long periods of time.

If you do discover an unidentified material and you suspect that it might be hazardous, contact Environmental Health and Safety at extension 5711. Do not attempt to move or handle the material unless you are sure that it is safe to do so. A hazardous materials technician will make the hazard/risk determination and a pickup will be arranged.

**- Section 11 -  
Hazardous Wastes of Concern**

In response to security concerns following the September 11, 2001 terrorist attack, legislation was passed [Senate Bill No. 489 (2001-2002 Reg. Session) Romero] that amended and enacted laws to increase the security of hazardous wastes. SB 489 amended Health and Safety Code §25112.5 and added Article 6.6 beginning with § 25169.5. The new law strengthens the security of hazardous waste that can be intentionally and effectively used to harm the public and or the environment. These wastes are called Hazardous Wastes of Concern (HWC). The Department of Toxic Substances Control (DTSC) adopted emergency regulations implementing SB 489 that apply to any person handling HWC. The emergency regulations became effective on July 10, 2003.

- Any person handling HWC who discovers that a reportable quantity of a HWC is missing during transportation or storage must notify DTSC by phone within 24 hours and submit a written report within five days.
- Transporters and treatment, storage and disposal facilities (TSDFs) that handle HWC must submit a Disclosure Statement and fingerprints for a criminal background check unless the corporation is exempt.
- Transporters and TSDFs that handle HWC must submit a Disclosure Statement with a new or renewal application by and after January 1, 2004.

A HWC is a hazardous waste that is identified with one of the following hazard divisions under the Code of Federal Regulations, Title 49 (49 C.F.R.):

- An explosive material, hazard division 1.1, 1.2, or 1.3;
- A poisonous material, hazard division 6.1, packing group I or II; or
- A poisonous gas, hazard division 2.3 (Cal. Code Regs., Title 22, 66261.111(a)).

DOT Laws and regulations require that any person packaging and shipping hazardous materials, including hazardous wastes, must have completed training that enables them to properly identify, document, package and handle the hazardous materials they are offering for shipment. To determine if a hazardous waste is a HWC:

- The generator or generator's trained employees must compare the DOT hazard classes of their hazardous wastes with those listed in the HWC regulations, and identify HWC for enhanced tracking.
- Further, the generator must determine if the waste exhibits HWC characteristics by testing the waste according to the approved methods or applying knowledge of the hazards characteristic of the waste in light of the processes that the materials have undergone.
- Transporters and TSDFs must check the information on the manifest in Box 11 (U.S. DOT Description), the additional information in Box J (Additional Descriptions for Materials Listed Above), and the label and markings on the container. If in doubt, the transporter and TSDFs should verify the information with the generator of the waste.
- Shipping names, hazard divisions, and packing groups are in 49 C.F.R. The Hazardous Materials Table is in 49 C.F.R Section 172.101. DTSC has prepared

- an excerpt with the names of the materials listed in the hazard divisions. (The excerpt is available as a complete list on DTSC's Web site at [www.dtsc.ca.gov/LawsRegulationsPolicies/HWC/hwm\\_regs\\_sb489\\_hwc-list.pdf](http://www.dtsc.ca.gov/LawsRegulationsPolicies/HWC/hwm_regs_sb489_hwc-list.pdf) or call 800-728-6942.

Missing HWC is defined as lost, stolen, or disappeared (Cal.Code Regs., Title 22, § 66261.111(b)). Any person handling HWC is required to report missing HWC when the missing waste is of a reportable quantity or a reportable difference in the type of wastes received by the transporter or TSDf, as compared to what is described on the manifest.

**Reportable quantities:**

- Bulk waste—a change of more than three percent in weight or volume.
- Containerized waste—a change in piece count, such as a difference of one drum in a truckload.
- Reportable differences in type are obvious differences that can be discovered by sight, inspection, or waste analysis. Examples of differences in type include waste caustic soda substituted for sodium cyanide, or waste containing hazardous constituents not reported on the manifest that would change the hazard class, the shipping name or waste code. Other examples: mineral spirits substituted for waste carbon tetrachloride; or soil substituted for any reactive or poisonous solid, etc.

**To Report Missing HWC Call EHS at ext. 5711 or 5702**

## Appendix A

### Extremely hazardous wastes:

#### General categories of listed chemicals

Arsenic and arsenic compounds  
Beryllium and beryllium compounds  
Boranes (B<sub>x</sub>H<sub>y</sub>)  
Cadmium and cadmium compounds  
Cyanide, cyanide salts and cyano compounds  
Dioxin compounds  
Halogenated silanes  
Hypochlorite compounds  
Lead and organo-lead compounds  
Mercury and mercury compounds  
Metal hydrides  
Pesticides  
Platinum compounds  
Polychlorinated Biphenyls (PCBs)  
Selenium and selenium compounds  
Thallium and thallium compounds

#### Specifically listed Chemicals

acetyl chloride  
acetyl thiourea  
2-acetylaminofluorene  
acrolein  
acrylonitrile  
adiponitrile  
alkyl aluminum compounds  
allyl alcohol  
allyl trichlorosilane  
aluminum chloride (anhydrous)  
aluminum diethyl monochloride  
aluminum phosphide  
4-aminodiphenyl  
5-(aminomethyl)-3-isoxazol  
5-(aminomethyl)-3-isoxazolone  
aminopyridine (2- and 4-)  
N-(aminothioxomethyl) acetamide  
ammonium bifluoride  
ammonium picrate

ammonium vanadate  
antimony pentachloride  
antimony pentafluoride  
arsenic and arsenic compounds  
aziridine  
benzene hexachloride  
benzenephosphorous dichloride  
benzenethiol  
benzidine and salts  
1,4-benzoquinone  
benzotrifluoride  
benzoyl chloride  
benzyl chloride  
benzyl chlorocarbonate  
benzyl chloroformate  
beryllium and beryllium compounds  
biphenyl  
boranes  
boron trichloride  
boron trifluoride  
bromine  
bromine pentafluoride  
bromine trifluoride  
3-bromo-1-propyne  
1-bromo-2-propanone  
bromoacetone  
bromomethane  
brucine  
2-butenal  
n-butyllithium and isomers  
cacodylic acid, esters and salts  
cadmium and cadmium compounds  
calcium  
calcium carbide  
calcium hydride  
calcium hypochlorite  
calcium oxychloride  
calcium phosphide  
carbon disulfide  
carbonic dichloride  
carbonyl chloride  
chlorine  
chlorine dioxide  
chlorine pentafluoride

chlorine trifluoride  
chloroacetaldehyde  
a-chloroacetophenone  
chloroacetyl chloride  
p-chloroaniline  
4-chlorobenzenamine  
o-chlorobenzylidene malonitrile  
chlorochromic anhydride  
chloromethylbenzene  
bis (chloromethyl) ether  
o-chlorophenyl thioiurea  
chloropicrin  
3-chloropropionitrile  
chlorosulfonic acid  
chromyl chloride  
cyanide, cyanide salts  
cyano compounds  
cycloheximide  
2-cyclohexyl-4,6-dinitrophenol  
3,3-dichlorobenzidine and salts  
dichloromethyl ether  
2,4-dichlorophenoxyacetic acid  
O,O-diethyl-O-pyrazinyl phosphorothioate  
diethyl-p-nitrophenyl phosphate  
O,O-diethyl-S-(isopropylthiomethyl)phosphorodithioate  
diethylaluminum chloride  
diethylzinc  
difluorophosphoric acid  
diglycidyl ether  
diisopropylfluorophosphate  
a,a-dimethyl benzeneethanamine  
dimethylaminoazobenzene  
dimethylhydrazine  
dimethyl nitrosoamine  
a,a-dimethylphenethylamine  
dimethyl sulfate  
dimethyl sulfide  
dinitrobenzene  
4,6-dinitro cresol and salts  
dinitrophenol  
dioxin compounds  
diphenyl  
diphosphoric acid, tetraethylester  
disulfuryl chloride

epinephrine  
bis (2,3-epoxypropyl) ether  
ethanedinitrile  
ethylchlorocarbonate  
ethylchloroformate  
ethyleneimine  
ethylmercaptan  
ethylzinc  
fluorine  
2-fluoroacetamide  
fluoroacetanilide  
fluoroacetic acid and salts  
fluoroboric acid  
fluorosulfonic acid  
fuming sulfuric acid  
halogenated silanes  
hexaethyl tetraphosphate  
hydrazine  
hydrazinecarbothioamide  
hydrobromic acid  
hydrochloric acid  
hydrocyanic acid  
hydrofluoric acid  
hydrogen phosphide  
hydrogen sulfide  
hydroiodic acid  
1-naphthalenylthiourea  
naphthylamine (a and b)  
a-naphthylthiourea  
nickel carbonyl  
nicotine and salts  
nitric oxide  
p-nitroaniline  
4-nitrobenzenamine  
nitrobenzene  
nitrobenzol  
4-nitrobiphenyl  
nitrochloroform  
nitrogen dioxide  
nitroglycerine  
nitrophenol (o,m,p)  
N-nitrosodimethylamine  
N-nitrosomethylvinylamine  
nitrotrichloromethane

octamethyl-diphosphoramid  
octamethylpyrophosphoramid  
oleum (fuming sulfuric acid)  
osmium tetroxide  
oxy bis(chloromethane)  
oxygen difluoride  
perchloromethyl mercaptan  
pesticides  
phenylbenzene  
phenylthiourea  
phosgene  
phosphine  
phosphoric acid, diethyl-4-nitrophenyl ester  
phosphoric chloride  
phosphoric sulfide  
phosphorofluoric acid, bis(1-methylethyl) ester  
phosphorus (white or yellow)  
phosphorus oxybromide  
phosphorus oxychloride  
phosphorus pentachloride  
phosphorus pentasulfide  
phosphorus sesquisulfide  
phosphorous tribromide  
phosphorous trichloride  
phosphoryl bromide  
phosphoryl chloride  
platinum compounds  
polychlorinated biphenyls  
potassium  
potassium bifluoride  
potassium hydride  
propanenitrile  
1,2,3-propanetriol, trinitrate  
propargyl alcohol  
propargyl bromide  
2-propen-1-ol  
2-propenal  
b-propiolacetone  
1,2-propylenimine  
2-propyn-1-ol  
sulfonyl fluoride  
sulfur chloride  
sulfur mustard  
sulfur oxychloride

sulfur pentafluoride  
sulfuryl chloride  
sulfuryl fluoride  
tellurium hexafluoride  
tetraethyldithiopyrophosphate  
tetraethyl pyrophosphate  
tetramethyl succinonitrile  
tetranitromethane  
tetraphosphorus trisulfide  
thallium and thallium compounds  
thiocarbonyl chloride  
thionyl chloride  
thiophenol  
thiophosgene  
thiosemicarbazide  
titanium tetrachloride  
toluene-2,4-diisocyanate  
trichloroborane  
trichloromethanethiol  
trichloromethylsulfenylchloride  
trichloronitromethane  
trifluoromethylbenzene  
2,4,6-trinitrophenol, ammonium salt  
vanadium oxides  
vinyl chloride  
zinc phosphide  
zirconium chlorides

## Appendix B

### Title 22 Listed Hazardous Wastes - P Codes

Acetaldehyde, chloro-  
Acetamide, N-(aminothioxomethyl)-  
Acetamide, 2-fluoro-  
Acetic acid, fluoro-, sodium salt  
1-Acetyl-2-thiourea  
Acrolein  
Aldicarb  
Aldicarb sulfone  
Aldrin  
Allyl alcohol  
Aluminum phosphide (R,T)  
5-(Aminomethyl)-3-isoxazolol  
4-Aminopyridine  
Ammonium picrate (R)  
Ammonium vanadate  
Argentate (1-), bis (cyano-C)-, potassium  
Arsenic acid H<sub>3</sub>AsO<sub>4</sub>  
Arsenic oxide As<sub>2</sub>O<sub>3</sub>  
Arsenic oxide As<sub>2</sub>O<sub>5</sub>  
Arsenic pentoxide  
Arsenic trioxide  
Arsine, diethyl  
Arsonous dichloride, phenyl-  
Aziridine  
Aziridine, 2-methyl-  
Barium cyanide  
Benzenamine, 4-chloro-  
Benzenamine, 4-nitro-  
Benzene, (chloromethyl)-  
1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-  
Benzeneethanamine, alpha,alpha-dimethyl-  
Benzenethiol  
7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.  
Benzoic acid, 2-hydroxy-, compd. with (3a*S*-cis)-1,2,3,3a,8,  
8a-hexahydro-1,3a,8-trimethyl-pyrrolo [2,3-*b*]indol-  
5-yl methylcarbamate ester (1:1).  
2H-1-Benzopyran-2-one,4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts when present at  
concentrations greater than 0.3  
Benzyl chloride  
Beryllium powder  
Bromoacetone

Brucine  
 2-Butanone, 3,3-dimethyl-1-(methylthio)-, o-[(methylamino)carbonyl] oxime  
 Calcium cyanide Ca(CN)  
 Carbamic acid, [(dibutylamino)-thio]methyl-,2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester  
 Carbamic acid, dimethyl-,1- [(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester.  
 Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester.  
 Carbamic acid, methyl-, 3-methylphenyl ester.  
 Carbofuran  
 Carbon disulfide  
 Carbonic dichloride  
 Carbosulfan  
 Chloroacetaldehyde  
 p-Chloroaniline  
 1-(o-Chlorophenyl) thiourea  
 3-Chloropropionitrile  
 Copper cyanide Cu(CN)  
 m-Cumenyl methylcarbamate.  
 Cyanides (soluble cyanide salts), not otherwise specified  
 Cyanogen  
 Cyanogen chloride (CN)Cl  
 2-Cyclohexyl-4,6-dinitrophenol  
 Dichloromethyl ether  
 Dichlorophenylarsine  
 Dieldrin  
 Diethylarsine  
 Diethyl-p-nitrophenyl phosphate  
 O,O-Diethyl O-pyrazinyl phosphorothioate  
 Diisopropyl fluorophosphate (DFP)  
 1,4,5,8-Dimethanonaphthalene,1,2,3,4-,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-,(1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-1,4,5,8-Dimethanonaphthalene,1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-,(1alpha,4alpha,4abeta,5beta,8beta,8abeta)-2,7:3,6-Dimethanonaphth[2,3-b]oxirene,3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-,(1alpha,2beta,2alpha,3beta,6beta,6alpha,7beta,7alpha)-2,7:3,6-Dimethanonaphth[2,3-b]oxirene,3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-,(1alpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7alpha)-, and metabolites  
 Dimetilan  
 Dimethoate  
 alpha, alpha-Dimethylphenethylamine  
 4,6-Dinitro-o-cresol and salts  
 2,4-Dinitrophenol  
 Dinoseb  
 Diphosphoramidate, octamethyl-  
 Diphosphoric acid, tetraethyl ester

Disulfoton  
 Dithiobiuret  
 1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)- carbonyl]oxime.  
 Endosulfan  
 Endothall  
 Endrin  
 Endrin, and metabolites  
 Epinephrine  
 Ethanedinitrile  
 Ethanimidithioic acid, N-[(methylamino) carbonyl] oxy]-, methyl ester  
 Ethanimidithioc acid, 2-(dimethylamino)- N-[[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester.  
 Ethyl cyanide  
 Ethyleneimine  
 Famphur  
 Fluorine  
 Fluoroacetamide  
 Fluoroacetic acid, sodium salt  
 Formetanate hydrochloride.  
 Formparanate  
 Fulminic acid, mercury (2+) salt (R,T)  
 Heptachlor  
 Hexaethyl tetraphosphate  
 Hydrazinecarbothioamide  
 Hydrazine, methyl-  
 Hydrocyanic acid  
 Hydrogen cyanide  
 Hydrogen phosphide  
 Isodrin  
 Isolan  
 3-Isopropylphenyl N-methylcarbamate.  
 3(2H)-Isoxazolone, 5-(aminomethyl)-  
 Manganese, bis(dimethylcarbamo-dithioato-S,S')-,  
 Manganese dimethyldithiocarbamate.  
 Mercury, (acetato-O)phenyl-  
 Mercury fulminate (R,T)  
 Methanamine, N-methyl-N-nitroso-  
 Methane, isocyanato-  
 Methane, oxybis[chloro-  
 Methane, tetranitro- (R)  
 Methanethiol, trichloro-  
 Methanimidamide, N,N-dimethyl-N'- [3-[[[(methylamino)-carbonyl]oxy] phenyl]-, monohydrochloride.

Methanimidamide, N,N-dimethyl-N'-2[- methyl-4-[[methylamino)carbonyl]oxy]phenyl]-6,9-Methano-2,4,3-benzodioxathiepen,6,7,8,9,10,10--hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide 4,7-Methano-1H-indene, 1,4,5,6,7,8,8- heptachloro-3a,4,7,7a-tetrahydro-  
 Methiocarb  
 Methomyl  
 Methyl hydrazine  
 Methyl isocyanate  
 2-Methylactonitrile  
 Methyl parathion  
 Metolcarb  
 Mexacarbate  
 alpha-Naphthylthiourea  
 Nickel carbonyl, Ni(CO)<sub>4</sub>, (T-4)-  
 Nickel cyanide Ni(CN)<sub>2</sub>  
 Nicotine and salts  
 Nitric oxide  
 p-Nitroaniline  
 Nitrogen dioxide  
 Nitrogen oxide NO  
 Nitrogen oxide NO<sub>2</sub>  
 Nitroglycerine (R)  
 N-Nitrosodimethylamine  
 N-Nitrosomethylvinylamine  
 Octamethylpyrophosphoramidate  
 Osmium oxide OsO<sub>3</sub>, (T-4)-  
 Osmium tetroxide  
 7-Oxabicyclo[2.2.1]heptane-2,3- dicarboxylic acid  
 Oxamyl  
 Parathion  
 Phenol, 2-cyclohexyl-4,6-dinitro-  
 Phenol, 2,4-dinitro-  
 Phenol, 2-methyl-4,6-dinitro- and salts  
 Phenol, 2-(1-methylpropyl)-4,6-dinitro-  
 Phenol, 2,4,6-trinitro-, ammonium salt (R)  
 Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).  
 Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate  
 Phenol, 3-(1-methylethyl)-, methyl carbamate.  
 Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate  
 Phenylmercury acetate  
 Phenylthiourea  
 Phorate  
 Phosgene  
 Phosphine

Phosphoric acid, diethyl 4-nitrophenylester  
 Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester  
 Phosphorodithioic acid, O,O-diethyl S- [(ethylthio)methyl] ester  
 Phosphorodithioic acid, O,O-dimethyl S-[2--(methylamino)-2-oxoethyl] ester  
 Phosphorofluoridic acid, bis(1- methylethyl) ester  
 Phosphorothioic acid, O,O-diethyl 0- (4-nitrophenyl) ester  
 Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester  
 Phosphorothioic acid, 0-[4- [(dimethylami-- no) sulfonyl]phenyl] O,O-dimethyl ester  
 Phosphorothioic acid, O,O-dimethyl 0-(4-nitrophenyl) ester  
 Physostigmine.  
 Physostigmine salicylate.  
 Plumbane, tetraethyl-  
 Potassium cyanide K(CN)  
 Potassium silver cyanide  
 Promecarb  
 Propanal, 2-methyl-2-(methylthio)-, 0- [(methylamino)carbonyl]oxime  
 Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime.  
 Propanenitrile  
 Propanenitrile, 3-chloro-  
 Propanenitrile, 2-hydroxy-2-methyl-  
 1,2,3-Propanetriol, trinitrate (R)  
 2-Propanone, 1-bromo-  
 Propargyl alcohol  
 2-Propenal  
 2-Propen-1-ol  
 1,2-Propylenimine  
 2-Propyn-1-ol  
 4-Pyridinamine  
 Pyridine, 3-(1-methyl-2- pyrrolidinyl)-, (S) and salts  
 Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a- hexahydro-1,3a,8-trimethyl-, methylcarbamate  
 (ester), (3aS-cis)-.  
 Selenious acid, dithallium (1+) salt  
 Selenourea  
 Silver cyanide Ag(CN)  
 Sodium azide  
 Sodium cyanide Na(CN)  
 Strychnidin-10-one, and salts  
 Strychnidin-10-one, 2,3-dimethoxy-  
 Strychnine and salts  
 Sulfuric acid, dithallium (1+) salt  
 Tetraethyldithiopyrophosphate  
 Tetraethyl lead  
 Tetraethyl pyrophosphate  
 Tetranitromethane (R)

Tetraphosphoric acid, hexaethyl ester  
Thallic oxide  
Thallium oxide Tl<sub>2</sub>O<sub>3</sub>  
Thallium (I) selenite  
Thallium (I) sulfate  
Thiodiphosphoric acid, tetraethyl ester  
Thiofanox  
Thioimidodicarbonic diamide [(H<sub>2</sub>N)C(S)]<sub>2</sub>NH  
Thiophenol  
Thiosemicarbazide  
Thiourea, (2-chlorophenyl)-  
Thiourea, 1-naphthalenyl-  
Thiourea, phenyl-  
Tirpate  
Toxaphene  
Trichloromethanethiol  
Vanadic acid, ammonium salt  
Vanadium oxide V<sub>2</sub>O<sub>5</sub>  
Vanadium pentoxide  
Vinylamine, N-methyl-N-nitroso-  
Warfarin, and salts, when present at concentrations greater than 0.3%  
Zinc, bis(dimethylcarbamodithioato- S,S'),  
Zinc cyanide Zn(CN)<sub>2</sub>  
Zinc phosphide Zn<sub>3</sub>P<sub>2</sub> , when present at concentrations greater than 10% (R,T)  
Ziram

#### **Title 22 Listed Hazardous Wastes - U Codes**

A2213  
Acetaldehyde (I)  
Acetaldehyde, trichloro-  
Acetamide, N-(4-ethoxyphenyl)-  
Acetamide, N-9H-fluoren-2-yl  
Acetic acid, (2-4-dichlorophenoxy)-, salts and esters  
Acetic acid, ethyl ester (I)  
Acetic acid, lead (2+) salt  
Acetic acid, thallium (1+) salt  
Acetic acid, (2,4,5-trichlorophenoxy)-  
Acetone (I)  
Acetonitrile (I,T)  
Acetophenone  
2-Acetylaminofluorene  
Acetyl chloride (C,R,T)  
Acrylamide  
Acrylic acid (I)

Acrylonitrile  
 Amitrole  
 Aniline (I,T)  
 Arsinic acid, dimethyl-  
 Auramine  
 Azaserine  
 Azirino(2',3':3,4)pyrrolo[1,2-a]indole-4,7-dione,6-amino-8-(((aminocarbonyl)oxy)methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-[1aS-(1aalpha,8beta,8aalpha,8balph)]  
 Barban.  
 Bendiocarb.  
 Bendiocarb phenol.  
 Benomyl.  
 Benz[j]aceanthrylene, 1,2-dihydro-3--methyl-  
 Benz[c]acridine  
 Benzal chloride  
 Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-  
 Benz[a]anthracene  
 Benz[a]anthracene, 7,12-dimethyl-  
 Benzenamine (I,T)  
 Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl]-  
 Benzenamine, 4-chloro-2-methyl-, hydrochloride  
 Benzenamine, N,N-dimethyl-4-(phenylazo)-  
 Benzenamine, 2-methyl-  
 Benzenamine, 4-methyl-  
 Benzenamine, 4,4'-methylenebis[2-chloro-  
 Benzenamine, 2-methyl-, hydrochloride  
 Benzenamine, 2-methyl-5-nitro-  
 Benzene (I,T)  
 Benzeneacetic acid, 4-chloro-alpha- (4-chlorophenyl)- alpha-hydroxy,ethyl ester  
 Benzene, 1-bromo-4-phenoxy-  
 Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-  
 Benzene, chloro-  
 Benzenediamine, ar-methyl-  
 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester  
 1,2-Benzenedicarboxylic acid, dibutylester  
 1,2-Benzenedicarboxylic acid, diethylester  
 1,2-Benzenedicarboxylic acid, dimethylester  
 1,2-Benzenedicarboxylic acid, dioctylester  
 Benzene, 1,2-dichloro-  
 Benzene, 1,3-dichloro-  
 Benzene, 1,4-dichloro-  
 Benzene, 1, 1'-(2,2-dichloroethylidene)bis [4-chloro]-  
 Benzene, (dichloromethyl)-  
 Benzene, 1,3-diisocyanatomethyl- (R,T)

Benzene, dimethyl- (I,T)  
1,3-Benzenediol  
Benzene, hexachloro-  
Benzene, hexahydro- (I)  
Benzene, methyl-  
Benzene, 1-methyl-2,4-dinitro-  
Benzene, 2-methyl-1,3-dinitro-  
Benzene, (1-methylethyl)- (I)  
Benzene, nitro-  
Benzene, pentachloro-  
Benzene, pentachloronitro-  
Benzenesulfonic acid chloride (C,R)  
Benzenesulfonyl chloride (C,R)  
Benzene, 1,2,4,5-tetrachloro-  
Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro]-  
Benzene, 1,1'-(2,2,2-trichloroethylidene)bis [4-methoxy]-  
Benzene, (trichloromethyl)-  
Benzene, 1,3,5-trinitro-  
Benzidine  
1,2-Benzisothiazol-3-(2H)-one, 1,1-dioxide and salts  
1,3-Benzodioxole, 5-(2-propenyl)-  
1,3-Benzodioxole, 5-(1-propenyl)-  
1,3-Benzodioxole, 5-propyl-  
Benzo[*rst*]pentaphene  
2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations of 0.3% or less  
Benzo[*a*]pyrene  
1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.  
1,3-Benzodioxol-4-ol, 2,2-dimethyl-,  
7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-  
*p*-Benzoquinone  
Benzotrichloride (C,R,T)  
2,2'-Bioxirane  
[1,1'-Biphenyl]-4,4'-diamine  
[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-  
[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-  
[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-  
Bromoform  
4-Bromophenyl phenyl ether  
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-  
1-Butanamine, *N*-butyl-*N*-nitroso-  
1-Butanol (I)  
2-Butanone (I,T)

2-Butanone, peroxide (R,T)  
2-Butenal  
2-Butene, 1,4-dichloro- (I,T)  
2-Butenoic acid, 2-methyl-, 7-[(2,3-dihydroxy- 2-(1-methoxyethyl)-3-methyl-1-oxobutoxy) methyl]-2,3,5,7a- tetrahydro-1H-pyrrolizin-1-ylester,[1S-[1 alpha (Z),7(2S\*, 3R\*), 7aalpha]-  
n-Butyl alcohol (I)  
Cacodylic acid  
Calcium chromate  
Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.  
Carbamic acid, [1-[(butylamino)carbonyl]- 1H-benzimidazol-2-yl]-, methyl ester.  
Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.  
Carbamic acid, ethyl ester  
Carbamic acid, methylnitroso-, ethyl ester  
Carbamic acid, phenyl-, 1-methylethyl ester.  
Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethylester.  
Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.  
Carbamothioic acid, dipropyl-, S- (phenylmethyl) ester.  
Carbamic chloride, dimethyl-  
Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters  
Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester  
Carbaryl.  
Carbendazim.  
Carbofuran phenol.  
Carbonic acid, dithallium (1+) salt  
Carbonic difluoride  
Carbonochloridic acid, methyl ester (I,T)  
Carbon oxyfluoride (R,T)  
Carbon tetrachloride  
Chloral  
Chlorambucil  
Chlordane, alpha and gamma isomers  
Chlornaphazine  
Chlorobenzene  
Chlorobenzilate  
p-Chloro-m-cresol  
2-Chloroethyl vinyl ether  
Chloroform  
Chloromethyl methyl ether  
beta-Chloronaphthalene  
o-Chlorophenol  
4-Chloro-o-toluidine, hydrochloride  
Chromic acid HCr2O4, calcium salt  
Chrysene

Creosote  
Cresol (Cresylic acid)  
Crotonaldehyde  
Cumene (I)  
Cyanogen bromide (CN)Br  
2,5-Cyclohexadiene-1, 4-dione  
Cyclohexane (I)  
Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha, 2alpha, 3beta, 4alpha, 5alpha, 6beta)-  
Cyclohexanone (I)  
1,3-Cyclopentadiene, 1,2,3,4,5,5- hexachloro-  
Cyclophosphamide  
2,4-D, salts and esters  
Daunomycin  
DDD  
DDT  
Diallate  
Dibenz[a,h]anthracene  
Dibenzo[a,i]pyrene  
1,2-Dibromo-3-chloropropane  
Dibutyl phthalate  
o-Dichlorobenzene  
m-Dichlorobenzene  
p-Dichlorobenzene  
3,3'-Dichlorobenzidine  
1,4-Dichloro-2-butene (I,T)  
Dichlorodifluoromethane  
1,1-Dichloroethylene  
1,2-Dichloroethylene  
Dichloroethyl ether  
Dichloroisopropyl ether  
Dichloromethoxy ethane  
2,4-Dichlorophenol  
2,6-Dichlorophenol  
1,3-Dichloropropene  
1,2:3,4-Diepoxybutane (I,T)  
1,4-Diethyleneoxide  
Diethylene glycol, dicarbamate.  
Diethylhexyl phthalate  
N,N'-Diethylhydrazine  
O,O-Diethyl-S-methyl dithiophosphate  
Diethyl phthalate  
Diethylstilbestrol  
Dihydrosafrole

3,3'-Dimethoxybenzidine  
 Dimethylamine (I)  
 p-Dimethylaminoazobenzene  
 7,12-Dimethylbenz[a]anthracene  
 3,3'-Dimethylbenzidine  
 alpha,alpha-Dimethylbenzylhydroperoxide (R)  
 Dimethylcarbamoyl chloride  
 1,1-Dimethylhydrazine  
 1,2-Dimethylhydrazine  
 2,4-Dimethylphenol  
 Dimethyl phthalate  
 Dimethyl sulfate  
 2,4-Dinitrotoluene  
 2,6-Dinitrotoluene  
 Di-n-octyl phthalate  
 1,4-Dioxane  
 1,2-Diphenylhydrazine  
 Dipropylamine (I)  
 Di-n-propylnitrosamine  
 Epichlorohydrin  
 Ethanal (I)  
 Ethanamine, N-ethyl-N-nitroso-  
 Ethanamine, N,N-diethyl-  
 1,2-Ethanediamine, N,N-dimethyl-N'- 2-pyridinyl-N'-(2-thienylmethyl)-  
 Ethane, 1,2-dibromo-  
 Ethane, 1,1-dichloro-  
 Ethane, 1,2-dichloro-  
 Ethane, hexachloro-  
 Ethane, 1,1'-[methylenebis(oxy)]bis [2-chloro-  
 Ethane, 1,1'-oxybis- (I)  
 Ethane, 1,1'-oxybis[2-chloro-  
 Ethane, pentachloro-  
 Ethane, 1,1,1,2-tetrachloro-  
 Ethane, 1,1,2,2-tetrachloro-  
 Ethanethioamide  
 Ethane, 1,1,1- trichloro-  
 Ethane, 1,1,2-trichloro-  
 Ethanimidothioic acid, N,N'-[thiobis [(methylimino)carbonyloxy]]bis-, dimethyl ester  
 Ethanimidothioic acid, 2-(dimethylamino)- N-hydroxy-2-oxo-, methyl ester.  
 Ethanol, 2-ethoxy  
 Ethanol, 2,2'-(nitrosoimino)bis-  
 Ethanol, 2,2'-oxybis-, dicarbamate.  
 Ethanone, 1-phenyl-  
 Ethene, chloro-

Ethene, (2-chloroethoxy)-  
Ethene, 1,1-dichloro-  
Ethene, 1,2-dichloro-, (E)-  
Ethene, tetrachloro-  
Ethene, trichloro-  
Ethyl acetate (I)  
Ethyl acrylate (I)  
Ethyl carbamate (urethane)  
Ethylenebisdithiocarbamic acid, salts and esters  
Ethylene dibromide  
Ethylene dichloride  
Ethylene glycol monoethyl ether  
Ethylene oxide (I,T)  
Ethylene thiourea  
Ethyl ether (I)  
Ethylidene dichloride  
Ethyl methacrylate  
Ethyl methanesulfonate  
Fluoranthene  
Formaldehyde  
Formic acid (C,T)  
Furan (I)  
2-Furancarboxaldehyde (I)  
2,5-Furandione  
Furan, tetrahydro- (I)  
Furfural (I)  
Furfuran (I)  
Glucopyranose, 2-deoxy-2(3-methyl-3- nitrosoureido)-, D-  
D-Glucose, 2-deoxy-2- [c(methylnitrosoamino)- carbonyl]amino]-  
Glycidylaldehyde  
Guanidine, N-methyl-N'-nitro-N-nitroso-  
Hexachlorobenzene  
Hexachlorobutadiene  
Hexachlorocyclopentadiene  
Hexachloroethane  
Hexachlorophene  
Hexachloropropene  
Hydrazine (R,T)  
Hydrazine, 1,2-diethyl-  
Hydrazine, 1,1-dimethyl-  
Hydrazine, 1,2-dimethyl-  
Hydrazine, 1,2-diphenyl-  
Hydrofluoric acid (C,T)  
Hydrogen fluoride (C,T)

Hydrogen sulfide H<sub>2</sub>S  
Hydroperoxide, 1-methyl-1-phenylethyl-(R)  
2-Imidazolidinethione  
Indeno[1,2,3-cd]pyrene  
1,3-Isobenzofurandione  
Isobutyl alcohol (I,T)  
Isosafrole  
Kepone  
Lasiocarpine  
Lead acetate  
Lead, bis(acetato-O)tetrahydroxytri-  
Lead phosphate  
Lead subacetate  
Lindane  
MNNG  
Maleic anhydride  
Maleic hydrazide  
Malononitrile  
Melphalan  
Mercury  
Methacrylonitrile (I,T)  
Methanamine, N-methyl- (I)  
Methane, bromo-  
Methane, chloro- (I,T)  
Methane, chloromethoxy-  
Methane, dibromo-  
Methane, dichloro-  
Methane, dichlorodifluoro-  
Methane, iodo-  
Methanesulfonic acid, ethyl ester  
Methane, tetrachloro-  
Methanethiol (I,T)  
Methane, tribromo-  
Methane, trichloro-  
Methane, trichlorofluoro-  
4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8- octachloro-2,3,3a,4,7,7a-hexahydro-  
Methanol (I)  
Methapyrilene  
1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-  
decachlorooctahydro-  
Methoxychlor  
Methyl alcohol (I)  
Methyl bromide  
1-Methylbutadiene (I)

Methyl chloride (I,T)  
 Methyl chlorocarbonate (I,T)  
 Methyl chloroform  
 3-Methylcholanthrene  
 4,4'-Methylenebis(2-chloroaniline)  
 Methylene bromide  
 Methylene chloride  
 Methyl ethyl ketone (MEK) (I,T)  
 Methyl ethyl ketone peroxide (R,T)  
 Methyl iodide  
 Methyl isobutyl ketone (I)  
 Methyl methacrylate (I,T)  
 4-Methyl-2-pentanone (I)  
 Methylthiouracil  
 Mitomycin C  
 5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10- tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-  
 1-Naphthalenamine  
 2-Naphthalenamine  
 Naphthalenamine, N,N'-bis(2-chloroethyl)-  
 Naphthalene  
 Naphthalene, 2-chloro-  
 1,4-Naphthalenedione  
 2,7-Naphthalenedisulfonic acid, 3,3'- [(3,3'-dimethyl [1,1'-biphenyl]-4,4'-diyl)]-bis(azo)bis(5-amino-4- hydroxy)-, tetrasodium salt  
 1-Naphthalenol, methylcarbamate.  
 1,4-Naphthoquinone  
 alpha-Naphthylamine  
 beta-Naphthylamine  
 Nitric acid, thallium (1+) salt  
 Nitrobenzene (I,T)  
 p-Nitrophenol  
 2-Nitropropane (I,T)  
 N-Nitrosodi-n-butylamine  
 N-Nitrosodiethanolamine  
 N-Nitrosodiethylamine  
 N-Nitroso-N-ethylurea  
 N-Nitroso-N-methylurea  
 N-Nitroso-N-methylurethane  
 N-Nitrosopiperidine  
 N-Nitrosopyrrolidine  
 5-Nitro-o-toluidine  
 1,2-Oxathiolane, 2,2-dioxide  
 2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-,2-oxide

Oxirane (I,T)  
Oxiranecarboxyaldehyde  
Oxirane, (chloromethyl)-  
Paraldehyde  
Pentachlorobenzene  
Pentachloroethane  
Pentachloronitrobenzene (PCNB)  
Pentachlorophenol  
Pentanol, 4-methyl-  
1,3-Pentadiene (I)  
Phenacetin  
Phenol  
Phenol, 2-chloro-  
Phenol, 4-chloro-3-methyl-  
Phenol, 2,4-dichloro-  
Phenol, 2,6-dichloro-  
Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-  
Phenol, 2,4-dimethyl-  
Phenol, methyl-  
Phenol, 2-(1-methylethoxy)-, methylcarbamate.  
Phenol, 2,2'-methylenebis[3,4,6- trichloro-  
Phenol, 4-nitro-  
Phenol, pentachloro-  
Phenol, 2,3,4,6-tetrachloro-  
Phenol, 2,4,5-trichloro-  
Phenol, 2,4,6-trichloro-  
L-Phenylalanine, 4-[bis(2- chloroethyl)amino]-  
Phosphoric acid, lead (2+) salt (2:3)  
Phosphorodithioic acid, O,O-diethyl S-methyl ester  
Phosphorous sulfide (R)  
Phthalic anhydride  
2-Picoline  
Piperidine, 1-nitroso-  
Pronamide  
1-Propanamine (I,T)  
1-Propanamine, N-nitroso-N-propyl-  
1-Propanamine, N-propyl- (I)  
Propane, 1,2-dibromo-3-chloro-  
Propane, 1,2-dichloro-  
Propanedinitrile  
Propane, 2-nitro- (I,T)  
Propane, 2,2'-oxybis[1-chloro-  
1,3-Propane sultone  
Propanoic acid, 2-(2,4,5- trichlorophenoxy)-

1-Propanol, 2,3-dibromo-, phosphate (3:1)  
1-Propanol, 2-methyl- (I,T)  
2-Propanone (I)  
2-Propenamide  
1-Propene, 1,3-dichloro  
1-Propene, 1,1,2,3,3,3-hexachloro-  
2-Propenenitrile  
2-Propenenitrile, 2-methyl- (I,T)  
2-Propenoic acid (I)  
2-Propenoic acid, ethyl ester (I)  
2-Propenoic acid, 2-methyl-, ethyl ester  
2-Propenoic acid, 2-methyl-, methyl ester  
Propham.  
Propoxur.  
n-Propylamine (I,T)  
Propylene dichloride  
Prosulfocarb.  
3,6-Pyridazinedione, 1,2-dihydro-  
Pyridine  
Pyridine, 2-methyl-  
2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-  
4-(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-  
Pyrrolidine, 1-nitroso-  
Reserpine  
Resorcinol  
Saccharin and salts  
Safrole  
Selenious acid  
Selenium dioxide  
Selenium sulfide SeS<sub>2</sub> (R,T)  
L-Serine, diazoacetate (ester)  
Silvex  
Streptozotocin  
Sulfuric acid, dimethyl ester  
Sulfur phosphide (R)  
2,4,5-T  
1,2,4,5-Tetrachlorobenzene  
1,1,1,2-Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
Tetrachloroethylene  
2,3,4,6-Tetrachlorophenol  
Tetrahydrofuran (I)  
Thallium (I) acetate  
Thallium (I) carbonate

Thallium (I) chloride  
Thallium chloride TICl  
Thallium (I) nitrate  
Thioacetamide  
Thiodicarb.  
Thiomethanol (I,T)  
Thioperoxydicarbonic diamide [(H<sub>2</sub>N)C(S)]<sub>2</sub>S<sub>2</sub>, tetramethyl-  
Thiourea  
Thiram  
Toluene (I,T)  
Toluenediamine  
Toluene diisocyanate (R,T)  
o-Toluidine  
p-Toluidine  
o-Toluidine hydrochloride  
1H-1,2,4-Triazol-3-amine  
Triallate.  
1,1,2-Trichloroethane  
Trichloroethylene  
Trichloromonofluoromethane  
2,4,5-Trichlorophenol  
2,4,6-Trichlorophenol  
Triethylamine.  
1,3,5-Trinitrobenzene (R,T)  
1,3,5-Trioxane, 2,4,6-trimethyl-  
Tris (2,3-dibromopropyl) phosphate  
Trypan blue  
Uracil mustard  
Urea, N-ethyl-N-nitroso-  
Urea, N-methyl-N-nitroso-  
Vinyl chloride  
Warfarin, and salts, when present at concentrations of 0.3% or less  
Xylene (I)  
Yohimban-16-carboxylic acid, 11,17-dimethoxy- 18-[(3,4,5-trimethoxybenzoyl)oxy]-,  
methyl ester,(3 beta, 16 beta,17 alpha, 18 beta, 20 alpha)- Zinc phosphide Zn<sub>3</sub>P<sub>2</sub> , when  
present at concentrations of 10% or less

## Appendix C

### Chemical Compatibility

RGN	Reactivity Group	Incompatible With:
1	Acids, Mineral, Non-Oxidizing	4-15,17-26,28,30-34,101-107
2	Acids, Mineral, Oxidizing	3-34,101-103,105-107
3	Acids, Organic	2,4,5,7,8,10-12,15,18,21,22,24,265,33,34,102-105, 107
4	Alcohols and Glycols	1-3,8,18,21,25,30,34,104,105,107
5	Aldehydes	1-3,7,8,10,12,21,25,27,28,30,33,34,104,105,107
6	Amides	1,2,21,24,104,105,107
7	Amines, Aliphatic and Aromatic	1-3,5,12,17,18,21,24,30,34,104,105,107
8	Azo Compounds, Diazo Compounds and Hydrazines	1-5,9,11-13,17-23,25,30-34,102-107
9	Carbamates	1,2,8,10,21,22,25,30,104,107
10	Caustics	1-3,5,9,13,17-19,21,22,24-27,32,34,102,103,107
11	Cyanides	1-3,5,9,13,17-19,21,22,24-27,32,34,102,103,107
12	Dithiocarbamates	1-3,8,17-19,21,25,30,34,103,104,107
13	Esters	1,2,8,10,21,25,102,104,105,107
14	Ethers	1,2,104,107
15	Fluorides, Inorganic	1-3,107
16	Hydrocarbons, Aromatic	1-3,6,7,10,26,30,34,102,103,106,107
25	Nitrides	1-5,8-13,17-21,26-27,30,31,34,101-104,106,107
26	Nitrites	1-3,10,21,24,25,30,104,105,107
27	Nitro Compounds, Organic	2,5,10,21,25,104,105,107
28	Hydrocarbons, Aliphatic, Unsaturated	1,2,5,22,30,104,107
29	Hydrocarbons, Aliphatic, Saturated	2,104,107
30	Peroxides and Hydroperoxides, Organic	1,2,4,5,7-9,11,12,17-22,24-26,28,31-34,101-105, 107
31	Phenols and Cresols	1,2,8,18,21,25,30,34,102-105,107
32	Organophosphates, Phosphothioates, Phosphodithioates	1,2,8,10,21,30,34,104,105,107
33	Sulfides, Inorganic	1-3,5,8,18,30,34,102-104,106,107
34	Epoxides	1-5,7,8,10-12,20-22,24,25,30-33,102,104,105,107
101	Combustible and Flammable Materials, Misc.	1,2,21,25,30,102,104,105,107
102	Explosives	1-3,8,10,13,21-25,30,31,33,34,101,105-105,107
103	Polymerizable Compounds	1-3,8,10-12,21-25,30,31,33,102,104,105,107
104	Oxidizing Agents, Strong	1,3-9,11-14,16-23,25-34,101-103,105,107
105	Reducing Agents, Strong	1-8,12,13,17-20,26,27,30,31,32,34,101-104,106,107
106	Water and Mixtures Containing Water	1,2,8,18,21,22,24,25,33,105,107
107	Water Reactive Substances	ALL!

## I. Acids, Mineral, Non-Oxidizing

4. Alcohols and Glycols
5. Aldehydes
6. Amides
7. Amines, Aliphatic and Aromatic
8. Azo Compounds, Diazo Compounds, and Hydrates
9. Carbamates
10. Caustics
11. Cyanides
12. Dithiocarbamates
13. Esters
14. Ethers
15. Fluorides, Inorganic
17. Halogenated hydrocarbons
18. Isocyanates
19. Ketones
20. Mercaptans and Other Organic Sulfides
21. Metals, Alkali and Alkaline Earth Metal
22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges
23. Metals, Other Elemental and Alloys as Sheets, Rods, Drops, Moldings
24. Metal and Metal Compounds, Toxic
25. Nitrides
26. Nitrites
28. Hydrocarbons, Aliphatic, Unsaturated
30. Peroxides and Hydrocarbons
31. Phenols and Cresols
32. Organophosphates, Phosphothioates, Phosphodithioates
33. Sulfides, Inorganic
34. Epoxides
101. Combustible and Flammable Materials, Misc.
102. Explosives
103. Polymerizable Compounds
104. Oxidizing Agents, Strong
105. Reducing Agents, Strong
106. Water and Mixtures Containing Water
107. Water Reactive Substances

## II. Acids, Mineral, Oxidizing

3. Acids, Organics
4. Alcohols and Glycols
5. Aldehydes
6. Amides
7. Amines, Aliphatic and Aromatic
8. Azo Compounds, Diazo Compounds, and Hydrates
9. Carbamates
10. Caustics
11. Cyanides
12. Dithiocarbamates
13. Esters
14. Ethers
15. Fluorides, Inorganic
16. Hydrocarbons, Aromatic
17. Halogenated hydrocarbons
18. Isocyanates
19. Ketones
20. Mercaptans and Other Organic Sulfides
21. Metals, Alkali and Alkaline Earth Metal

- 22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges
- 23. Metals, Other Elemental and Alloys as Sheets, Rods, Drops, Moldings
- 24. Metal and Metal Compounds, Toxic
- 25. Nitrides
- 26. Nitrites
- 27. Nitro Compounds, Organic
- 28. Hydrocarbons, Aliphatic, Unsaturated
- 29. Hydrocarbons, Aliphatic, Saturated
- 30. Peroxides and Hydrocarbons
- 31. Phenols and Cresols
- 32. Organophosphates, Phosphothioates, Phosphodithioates
- 33. Sulfides, Inorganic
- 34. Epoxides
- 101. Combustible and Flammable Materials, Misc.
- 102. Explosives
- 103. Polymerizable Compounds
- 105. Reducing Agents, Strong
- 106. Water and Mixtures Containing Water
- 107. Water Reactive Substances

### III. Acids, Organic

- 2. Acids, Mineral, Oxidizing
- 4. Alcohols and Glycols
- 5. Aldehydes
- 7. Amines, Aliphatic and Aromatic
- 8. Azo Compounds, Diazo Compounds, and Hydrates
- 10. Caustics
- 11. Cyanides
- 12. Dithiocarbamates
- 15. Fluorides, Inorganic
- 18. Isocyanates
- 21. Metals, Alkali and Alkaline Earth Metal
- 22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges
- 24. Metal and Metal Compounds, Toxic
- 25. Nitrides
- 26. Nitrites
- 33. Sulfides, Inorganic
- 34. Epoxides
- 102. Explosives
- 103. Polymerizable Compounds
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong
- 107. Water Reactive Substances

### IV. Alcohols and Glycols

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 3. Acids, Organic
- 8. Azo Compounds, Diazo Compounds and Hydrazines
- 18. Isocyanates
- 21. Metals, Alkali and Alkaline Earth Metals
- 25. Nitrides
- 30. Peroxides and Hydroperoxides, Organic
- 34. Epoxides
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong
- 107. Water Reactive Substances

### V. Aldehydes

1. Acids, Mineral, Nonoxidizing
2. Acids, Mineral, Oxidizing
3. Acids, Organics
7. Amines, Aliphatic and Aromatic
8. Azo Compounds, Diazo Compounds, and Hydrates
10. Caustics
12. Dithiocarbamates
21. Metals, Alkali and Alkaline Earth Metal
25. Nitrides
27. Nitro Compounds, Organic
28. Hydrocarbons, Aliphatic, Unsaturated
30. Peroxides and Hydrocarbons
33. Sulfides, Inorganic
34. Epoxides
104. Oxidizing Agents, Strong
105. Reducing Agents, Strong
107. Water Reactive Substances

#### VI. Amides

1. Acids, Mineral, Nonoxidizing
2. Acids, Mineral, Oxidizing
21. Metals, Alkali and Alkaline Earth Metal
24. Metal and Metal Compounds, Toxic
104. Oxidizing Agents, Strong
105. Reducing Agents, Strong
107. Water Reactive Substances

#### VII. Amines, Aliphatic and Aromatic

1. Acids, Mineral, Nonoxidizing
2. Acids, Mineral, Oxidizing
3. Acids, Organics
5. Aldehydes
12. Dithiocarbamates
17. Halogenated hydrocarbons
18. Isocyanates
21. Metals, Alkali and Alkaline Earth Metal
24. Metal and Metal Compounds, Toxic
30. Peroxides and Hydrocarbons
34. Epoxides
104. Oxidizing Agents, Strong
105. Reducing Agents, Strong
107. Water Reactive Substances

#### VIII. Azo Compounds, Diazo Compounds, and Hydrazines

1. Acids, Mineral, Nonoxidizing
2. Acids, Mineral, Oxidizing
3. Acids, Organics
4. Alcohols and Glycols
5. Aldehydes
9. Carbamates
11. Cyanides
12. Dithiocarbamates
13. Esters
17. Halogenated hydrocarbons
18. Isocyanates
19. Ketones
20. Mercaptans and Other Organic Sulfides
21. Metals, Alkali and Alkaline Earth Metal
22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges

- 23. Metals, Other Elemental and Alloys as Sheets, Rods, Drops, Moldings
- 25. Nitrides
- 30. Peroxides and Hydrocarbons
- 31. Phenols and Cresols
- 32. Organophosphates, Phosphothioates, Phosphodithioates
- 33. Sulfides, Inorganic
- 34. Epoxides
- 102. Explosives
- 103. Polymerizable Compounds
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong
- 106. Water and Mixtures Containing Water
- 107. Water Reactive Substances

#### IX. Carbamates

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 8. Azo Compounds, Diazo Compounds, and Hydrates
- 10. Caustics
- 21. Metals, Alkali and Alkaline Earth Metal
- 22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges
- 25. Nitrides
- 30. Peroxides and Hydrocarbons
- 104. Oxidizing Agents, Strong
- 107. Water Reactive Substances

#### X. Caustics

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 3. Acids, Organics
- 5. Aldehydes
- 9. Carbamates
- 13. Esters
- 17. Halogenated hydrocarbons
- 18. Isocyanates
- 19. Ketones
- 21. Metals, Alkali and Alkaline Earth Metal
- 22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges
- 24. Metal and Metal Compounds, Toxic
- 25. Nitrides
- 26. Nitrites
- 27. Nitro Compounds, Organic
- 32. Organophosphates, Phosphothioates, Phosphodithioates
- 34. Epoxides
- 102. Explosives
- 103. Polymerizable Compounds
- 107. Water Reactive Substances

#### XI. Cyanides

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 3. Acids, Organics
- 8. Azo Compounds, Diazo Compounds, and Hydrates
- 17. Halogenated hydrocarbons
- 18. Isocyanates
- 19. Ketones
- 21. Metals, Alkali and Alkaline Earth Metal
- 25. Nitrides
- 30. Peroxides and Hydrocarbons

- 34. Epoxides
- 103. Polymerizable Compounds
- 104. Oxidizing Agents, Strong
- 107. Water Reactive Substances

XII. Dithiocarbamates

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 3. Acids, Organics
- 5. Aldehydes
- 7. Amines, Aliphatic and Aromatic
- 8. Azo Compounds, Diazo Compounds, and Hydrates
- 18. Isocyanates
- 21. Metals, Alkali and Alkaline Earth Metal
- 25. Nitrides
- 30. Peroxides and Hydrocarbons
- 34. Epoxides
- 103. Polymerizable Compounds
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong
- 107. Water Reactive Substances

XIII. Esters

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 8. Azo Compounds, Diazo Compounds, and Hydrates
- 10. Caustics
- 21. Metals, Alkali and Alkaline Earth Metal
- 25. Nitrides
- 102. Explosives
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong
- 107. Water Reactive Substances

XIV. Ethers

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 104. Oxidizing Agents, Strong
- 107. Water Reactive Substances

XV. Fluorides, Inorganic

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 3. Acids, Organics
- 107. Water Reactive Substances

XVI. Hydrocarbons, Aromatic

- 2. Acids, Mineral, Oxidizing
- 104. Oxidizing Agents, Strong
- 107. Water Reactive Substances

XVII. Halogenated Organics

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 7. Amines, Aliphatic and Aromatic
- 8. Azo Compounds, Diazo Compounds, and Hydrates
- 10. Caustics
- 11. Cyanides
- 20. Mercaptans and Other Organic Sulfides

- 21. Metals, Alkali and Alkaline Earth Metal
- 22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges
- 23. Metals, Other Elemental and Alloys as Sheets, Rods, Drops, Moldings
- 25. Nitrides
- 30. Peroxides and Hydrocarbons
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong
- 107. Water Reactive Substances

XVIII. Isocyanates

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 3. Acids, Organics
- 4. Alcohols and Glycols
- 7. Amines, Aliphatic and Aromatic
- 8. Azo Compounds, Diazo Compounds, and Hydrates
- 10. Caustics
- 11. Cyanides
- 12. Dithiocarbamates
- 20. Mercaptans and Other Organic Sulfides
- 21. Metals, Alkali and Alkaline Earth Metal
- 22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges
- 25. Nitrides
- 30. Peroxides and Hydrocarbons
- 31. Phenols and Cresols
- 33. Sulfides, Inorganic
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong
- 106. Water and Mixtures Containing Water
- 107. Water Reactive Substances

XIX. Ketones

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 8. Azo Compounds, Diazo Compounds, and Hydrates
- 10. Caustics
- 11. Cyanides
- 20. Mercaptans and Other Organic Sulfides
- 21. Metals, Alkali and Alkaline Earth Metal
- 25. Nitrides
- 30. Peroxides and Hydrocarbons
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong
- 107. Water Reactive Substances

XX. Mercaptans and Other Organic Sulfides

- 1. Acids, Mineral, Nonoxidizing
- 2. Acids, Mineral, Oxidizing
- 8. Azo Compounds, Diazo Compounds, and Hydrazines
- 17. Halogenated hydrocarbons
- 18. Isocyanates
- 19. Ketones
- 21. Metals, Alkali and Alkaline Earth Metal
- 22. Metals, Other Elemental and Alloys as Powders, Vapors or Sponges
- 25. Nitrides
- 30. Peroxides and Hydrocarbons
- 34. Epoxides
- 104. Oxidizing Agents, Strong
- 105. Reducing Agents, Strong

107. Water Reactive Substances

XXI. Metals, Alkali and Alkaline Earth Elemental

1. Acids, Mineral, Nonoxidizing
2. Acids, Mineral, Oxidizing
3. Acids, Organics
4. Alcohols and Glycols
5. Aldehydes
6. Amides
7. Amines, Aliphatic and Aromatic
8. Azo Compounds, Diazo Compounds, and Hydrates
9. Carbamates
10. Caustics
11. Cyanides
12. Dithiocarbamates
13. Esters
17. Halogenated hydrocarbons
18. Isocyanates
19. Ketones
20. Mercaptans and Other Organic Sulfides
25. Nitrides
26. Nitrites
27. Nitro Compounds, Organic
30. Peroxides and Hydrocarbons
31. Phenols and Cresols
32. Organophosphates, Phosphothioates, Phosphodithioates
34. Epoxides
101. Combustible and Flammable Materials, Misc.
102. Explosives
103. Polymerizable Compounds
104. Oxidizing Agents, Strong
106. Water and Mixtures Containing Water
107. Water Reactive Substances

## Appendix D

Table II - List of Inorganic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Values:

Substance <sup>a,b</sup>	STLC mg/l	TTLC Wet-Weight mg/kg
Antimony and/or antimony compounds	15	500
Arsenic and/or arsenic compounds	5.0	500
Asbestos	1.0 (as percent)	
Barium and/or barium compounds (excluding barite)	100	10,000 <sup>c</sup>
Beryllium and/or beryllium compounds	0.75	75
Cadmium and/or cadmium compounds	1.0	100
Chromium (VI) compounds	5	500
Chromium &/or chromium (III) compounds	5 <sup>d</sup>	2,500
Cobalt and/or cobalt compounds	80	8,000
Copper and/or copper compounds	25	2,500
Fluoride salts	180	18,000
Lead and/or lead compounds	5.0	1,000
Mercury and/or mercury compounds	0.2	20
Molybdenum &/or molybdenum compounds	350	3,500 <sup>e</sup>
Nickel and/or nickel compounds	20	2,000
Selenium and/or selenium compounds	1.0	100
Silver and/or silver compounds	5	500
Thallium and/or thallium compounds	7.0	700
Vanadium and/or vanadium compounds	24	2,400
Zinc and/or zinc compounds	250	5,000

<sup>a</sup>STLC and TTLC values are calculated on the concentrations of the elements, not the compounds.

<sup>b</sup>In the case of asbestos and elemental metals, the specified concentration limits apply only if the substances are in a friable, powdered or finely divided state. Asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.

<sup>c</sup>Excluding barium sulfate.

<sup>d</sup>If the soluble chromium, as determined by the TCLP set forth in Appendix I of chapter 18 of this division, is less than 5 mg/l, and the soluble chromium, as determined by the procedures set forth in Appendix II of chapter 11, equals or exceeds 560 mg/l and the waste is not otherwise identified as a RCRA hazardous waste pursuant to section 66261.100, then the waste is a non-RCRA hazardous waste.

<sup>e</sup>Excluding molybdenum disulfide.

(B) Table III - List of Organic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Values:

Substance	STLC mg/l	TTLC Wet Weight mg/kg
Aldrin	0.14	1.4
Chlordane	0.25	2.5
DDT, DDE, DDD	0.1	1.0
2,4-Dichlorophenoxyacetic acid	10	100
Dieldrin	0.8	8.0
Dioxin (2,3,7,8-TCDD)	0.001	0.01
Endrin	0.02	0.2
Heptachlor	0.47	4.7
Kepone	2.1	21
Lead compounds, organic	--	13
Lindane	0.4	4.0
Methoxychlor	10	100
Mirex	2.1	21
Pentachlorophenol	1.7	17
Polychlorinated biphenyls (PCBs)	5.0	50
Toxaphene	0.5	5
Trichloroethylene	204	2,040
2,4,5-Trichlorophenoxypropionic acid	1.0	10

## Appendix E

### Hazardous Waste Generator Locations and Waste Stream Profiles

- I. Science A
  - A. 3<sup>rd</sup> Floor
    - 1. Rm 369
      - a. Atomic Absorption analysis waste
      - b. Assorted acid/metal waste
      - c. Nuclear Magnetic Resonance analysis waste
  - B. 4<sup>th</sup> Floor
    - 1. Rms 452 & 456
      - a. Preserved Animal and Plant Specimens
      - b. Cadaver Tank Waste (Alcohol solution)
  - C. 5<sup>th</sup> Floor
    - 1. Rm 569A
      - a. Solvent waste from organic labs
      - b. Acid metal waste from general chemistry labs
      - c. Solvent waste from research labs
- II. Science B
  - A. 2<sup>nd</sup> Floor
    - 1. Rm 230
      - a. Organic solvents from biology labs
      - b. Corrosive waste from biology labs
      - c. Electrophoresis waste
      - d. Preserved specimens
      - e. Expired and unused lab chemicals
      - f. Solvent waste from genetic manipulation labs
- III. Science C
  - A. 1<sup>st</sup> Floor
    - 1. Rms 102 & 108
      - a. Photo waste from Transmission & Scanning Electron Microscopy
- IV. Science D
  - A. Ground Floor
    - 1. Rm 7
      - a. Corrosive wastes from water quality lab
      - b. Solvent waste from water quality lab
- V. Natural Resources
  - A. 1<sup>st</sup> Floor
    - 1. Rm 104
      - a. Corrosive waste from plant digests
      - b. Solvent waste
      - c. Electrophoresis waste
      - d. Solvent waste from genetic manipulation labs
- VI. Wildlife
  - A. 1<sup>st</sup> Floor
    - 1. Rm 100
      - a. Alcohol and formalin preservative waste
    - 2. Rm 112

- a. Electrophoresis waste
    - b. Alcohol and formalin preservative waste
    - c. Corrosive waste
  - B. 2<sup>nd</sup> Floor
    - 1. Rm 200
      - a. Solvent waste
      - b. Solvent waste from genetic manipulation labs
    - 2. Rm 214
      - a. Corrosive waste from plant digests
      - b. Solvent waste
      - c. Electrophoresis waste
      - d. Solvent waste from genetic manipulation labs
    - 3. Rm 272
      - a. Corrosive waste from plant digests
      - b. Solvent waste
      - c. Electrophoresis waste
      - d. Solvent waste from genetic manipulation labs
- VII. Plant Operations
  - A. Various Locations to Haz Waste Accumulation Building
    - 1. Various
      - a. Asbestos
      - b. Lead/Acid Batteries
      - c. Paint related waste
      - d. PCB ballasts
      - e. Lighting waste
      - f. Electronic waste
      - g. Construction related waste
      - h. Used Oil
      - i. Oil filters
      - j. Antifreeze
- VIII. Jenkins Hall (Industrial Arts)
  - A. 1<sup>st</sup> Floor
    - 1. Rm 106
      - a. Lubricants contaminated with metals
  - B. 2<sup>nd</sup> Floor
    - 1. Rm 211
      - a. Painted related waste
- IX. Art/Home Ec building
  - A. 1<sup>st</sup> Floor
    - 1. Rm 118
      - a. Photo Waste
    - 2. Rm 107
      - a. Corrosives contaminated with metals from Jewelry Lab
    - 3. Rm 100
      - a. Lithography waste - corrosive and mineral spirits
  - B. 2<sup>nd</sup> Floor
    - 1. Rm 205
      - a. Paint related waste
    - 2. Rm 202 & 204

- a. Print making waste
- X. University Central Storage Facility
  - A. 1<sup>st</sup> Floor
    - 1. Rm 101
      - a. Cathode Ray Tubes
- XI. Theater Arts
  - A. 1<sup>st</sup> Floor
    - 1. Rm 103
      - a. Paint related waste
- XII. Van Matre Hall
  - A. 2<sup>nd</sup> Floor
    - 1. Rm 211
      - a. Lead/acid batteries from mainframe computer
- XIII. Student Health Center
  - A. 1<sup>st</sup> Floor
    - 1. Rm 124C (X-Ray)
      - a. Photo waste
- XIV. Housing (JGC)
  - A. Ground Floor
    - 1. From entire complex
      - a. Asbestos
      - b. Lead/Acid batteries
      - c. Paint related waste
      - d. PCB ballasts
      - e. Lighting waste
      - f. Electronic waste
      - g. Construction related waste
      - h. Used oil
      - i. Oil filters
- XV. Telonicher Marine Lab (Trinidad)
  - A. Ground Floor
    - 1. Shed on east side of facility
      - a. Alcohol and formalin preserved specimens
      - b. Corrosive waste
      - c. Solvent waste

## Appendix F

### HAZARDOUS WASTES OF CONCERN LIST

NOTE: Senate Bill 489 (2002) defined hazardous wastes of concern (HWC) as having the potential to be intentionally and effectively used to harm the public in a terrorist or other criminal act. Transporters and facilities handling HWC must immediately report missing wastes and submit disclosure statements and fingerprints to DTSC. The HWC Emergency Regulations, fact sheet, and related documents can be found at [www.dtsc.ca.gov](http://www.dtsc.ca.gov) under Law, Regulations, and Policies, Emergency Regulations. The following table lists the chemicals, when classified as hazardous wastes, meet the Department of Toxic Substances Control (DTSC) criteria for HWC as explosive, poison, or poisonous gas as adopted on July 1, 2003 in the California Code of Regulations, title 22, section 66261.111, with a July 10, 2003 effective date. The chemical names are excerpted from the U.S. DOT Hazardous Materials Table (as revised October 1, 2002). This list may be updated periodically by future regulations. Contact DTSC at 1-800-72-TOXIC if you have questions.

### HAZARDOUS WASTES OF CONCERN

LIST OF CHEMICAL NAMES EXCERPTED FROM THE U.S. DOT  
HAZARDOUS MATERIALS TABLE (as revised October 1, 2002)

### PROPER SHIPPING NAME/HAZARD CLASS/PACKING GROUP

(Hazard Class 6.1 Only)

1,1-Dichloro-1-nitroethane 6.1 II  
1,2-Dibromobutan-3-one 6.1 II  
1,3-Dichloroacetone 6.1 II  
1,3-Dichloropropanol-2 6.1 II  
1H-Tetrazole 1.1D  
2,2'-Dichlorodiethyl ether 6.1 II  
2-Amino-4-chlorophenol 6.1 II  
2-Chloroethanal 6.1 I  
2-Chloropyridine 6.1 II  
2-Dimethylaminoethyl acrylate 6.1 II  
2-Dimethylaminoethyl methacrylate 6.1 II  
2-Ethylhexyl chloroformate 6.1 II  
2-Methyl-2-heptanethiol 6.1 I  
3,5-Dichloro-2,4,6-trifluoropyridine 6.1 I  
3-Chloro-4-methylphenyl isocyanate 6.1 II  
3-Nitro-4-chlorobenzotrifluoride 6.1 II  
3-Trifluoromethylaniline 6.1 II  
5-Nitrobenzotriazol 1.1D  
Acetone cyanohydrin, stabilized 6.1 I  
Acrolein, stabilized 6.1 I  
Aldol 6.1 II  
Alkaloids, liquid, n.o.s., [or] Alkaloid salts, liquid, n.o.s. 6.1 I  
Alkaloids, liquid, n.o.s., [or] Alkaloid salts, liquid, n.o.s. 6.1 II  
Alkaloids, solid, n.o.s. [or] Alkaloid salts, solid, n.o.s. [poisonous] 6.1 I  
Alkaloids, solid, n.o.s. [or] Alkaloid salts, solid, n.o.s. [poisonous] 6.1 II  
Allyl alcohol 6.1 I  
Allyl chloroformate 6.1 I  
Allyl isothiocyanate, stabilized 6.1 II  
Allylamine 6.1 I  
Aluminum phosphide pesticides 6.1 I  
Aminopyridines [(o-; m-; p-)] 6.1 II  
Ammonia solution, [relative density less than 0.880 at 15 degrees C  
in water, with more than 50 percent ammonia] 2.3  
Ammonia, anhydrous 2.3  
Ammonium arsenate 6.1 II  
Ammonium dinitro-o-cresolate 6.1 II  
Ammonium metavanadate 6.1 II  
Ammonium nitrate, [with more than 0.2 percent combustible  
substances, including any organic substance calculated as carbon,  
to the exclusion of any other added substance]

1.1D  
Ammonium perchlorate 1.1D  
Ammonium picrate, [dry or wetted with less than 10 percent water, by mass] 1.1D  
Ammonium polyvanadate 6.1 II  
Ammunition smoke, white phosphorus [with burster,expelling charge, or propelling charge] 1.2H  
Ammunition, illuminating [with or without burster, expelling charge or propelling charge] 1.2G  
Ammunition, illuminating [with or without burster, expelling charge or propelling charge] 1.3G  
Ammunition, incendiary [liquid or gel, with burster, expelling charge or propelling charge] 1.3J  
Ammunition, incendiary [with or without burster, expelling charge, or propelling charge] 1.2G  
Ammunition, incendiary [with or without burster, expelling charge, or propelling charge] 1.3G  
Ammunition, incendiary, white phosphorus, [with burster, expelling charge or propelling charge] 1.2H  
Ammunition, incendiary, white phosphorus, [with burster, expelling charge or propelling charge] 1.3H  
Ammunition, practice 1.3G  
Ammunition, smoke [with or without burster, expelling charge or propelling charge] 1.2G  
Ammunition, smoke [with or without burster, expelling charge or propelling charge] 1.3G  
Ammunition, smoke, white phosphorus [with burster, expelling charge, or propelling charge] 1.3H  
Ammunition, tear-producing [with burster, expelling charge or propelling charge] 1.2G  
Ammunition, tear-producing [with burster, expelling charge or propelling charge] 1.3G  
Ammunition, tear-producing, non-explosive, [without burster or expelling charge, non-fuzed] 6.1 II  
Ammunition, toxic [with burster, expelling charge, or propelling charge] 1.2K  
Ammunition, toxic [with burster, expelling charge, or propelling charge] 1.3K  
Ammunition, toxic, non-explosive, [without burster or expelling charge, non-fuzed] 6.1 II  
Aniline 6.1 II  
Arsenic 6.1 II  
Arsenic acid, liquid 6.1 I  
Arsenic acid, solid 6.1 II  
Arsenic bromide 6.1 II  
Arsenic compounds, liquid, n.o.s. [inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.]  
6.1 I  
Arsenic compounds, liquid, n.o.s. [inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.]  
6.1 II  
Arsenic compounds, solid, n.o.s. [inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.]  
6.1 I  
Arsenic compounds, solid, n.o.s. [inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic

compounds of arsenic, n.o.s.]  
 6.1 II  
 Arsenic pentoxide 6.1 II  
 Arsenic trichloride 6.1 I  
 Arsenic trioxide 6.1 II  
 Arsenical dust 6.1 II  
 Arsenical pesticides, liquid, toxic 6.1 I  
 Arsenical pesticides, liquid, toxic 6.1 II  
 Arsenical pesticides, liquid, toxic, flammable [flash point not less than 23 degrees C] 6.1 I  
 Arsenical pesticides, liquid, toxic, flammable [flash point not less than 23 degrees C] 6.1 II  
 Arsenical pesticides, solid, toxic 6.1 I  
 Arsenical pesticides, solid, toxic 6.1 II  
 Arsine 2.3  
 Articles, explosive, n.o.s. 1.1C  
 Articles, explosive, n.o.s. 1.1D  
 Articles, explosive, n.o.s. 1.1E  
 Articles, explosive, n.o.s. 1.1F  
 Articles, explosive, n.o.s. 1.1L  
 Articles, explosive, n.o.s. 1.2C  
 Articles, explosive, n.o.s. 1.2D  
 Articles, explosive, n.o.s. 1.2E  
 Articles, explosive, n.o.s. 1.2F  
 Articles, explosive, n.o.s. 1.2L  
 Articles, explosive, n.o.s. 1.3C  
 Articles, explosive, n.o.s. 1.3L  
 Articles, pyrophoric 1.2L  
 Articles, pyrotechnic [for technical purposes] 1.1G  
 Articles, pyrotechnic [for technical purposes] 1.2G  
 Articles, pyrotechnic [for technical purposes] 1.3G  
 Barium azide, [dry or wetted with less than 50 percent water, by mass] 1.1A  
 Barium compounds, n.o.s. 6.1 II  
 Barium cyanide 6.1 I  
 Benzidine 6.1 II  
 Benzonitrile 6.1 II  
 Benzoquinone 6.1 II  
 Benzyl bromide 6.1 II  
 Benzyl chloride 6.1 II  
 Benzyl chloride [unstabilized] 6.1 II  
 Benzyl iodide 6.1 II  
 Benzylidene chloride 6.1 II  
 Beryllium compounds, n.o.s. 6.1 II  
 Beryllium, powder 6.1 II  
 beta-Naphthylamine 6.1 II  
 Bipyridilium pesticides, liquid, toxic 6.1 I  
 Bipyridilium pesticides, liquid, toxic 6.1 II  
 Bipyridilium pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 I  
 Bipyridilium pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
 Bipyridilium pesticides, solid, toxic 6.1 I  
 Bipyridilium pesticides, solid, toxic 6.1 II  
 Black powder [or] Gunpowder, [granular or as a meal] 1.1D  
 Black powder, compressed [or] Gunpowder, compressed [or] Black powder, in pellets [or] Gunpowder, in pellets 1.1D  
 Bombs with flammable liquid, [with bursting charge] 1.1J  
 Bombs with flammable liquid, [with bursting charge] 1.2J

Bombs, [with bursting charge] 1.1D  
 Bombs, [with bursting charge] 1.1F  
 Bombs, [with bursting charge] 1.2D  
 Bombs, [with bursting charge] 1.2F  
 Bombs, photo-flash 1.1D  
 Bombs, photo-flash 1.1F  
 Bombs, photo-flash 1.2G  
 Bombs, photo-flash 1.3G  
 Boosters with detonator 1.1B  
 Boosters with detonator 1.2B  
 Boosters, [without detonator] 1.1D  
 Boosters, [without detonator] 1.2D  
 Boron trichloride 2.3  
 Boron trifluoride, compressed 2.3  
 Bromine chloride 2.3  
 Bromoacetone 6.1 II  
 Bromobenzyl cyanides, [liquid] 6.1 I  
 Bromobenzyl cyanides, [solid] 6.1 I  
 Brucine 6.1 I  
 Bursters, [explosive] 1.1D  
 Cacodylic acid 6.1 II  
 Cadmium compounds 6.1 I  
 Cadmium compounds 6.1 II  
 Calcium arsenate 6.1 II  
 Calcium arsenate and calcium arsenite, mixtures, solid 6.1 II  
 Calcium cyanide 6.1 I  
 Carbamate pesticides, liquid, toxic 6.1 I  
 Carbamate pesticides, liquid, toxic 6.1 II  
 Carbamate pesticides, liquid, toxic, flammable[, flash point not less than 23 degrees C] 6.1 I  
 Carbamate pesticides, liquid, toxic, flammable[, flash point not less than 23 degrees C] 6.1 II  
 Carbamate pesticides, solid, toxic 6.1 I  
 Carbamate pesticides, solid, toxic 6.1 II  
 Carbon monoxide and hydrogen mixture, compressed 2.3  
 Carbon monoxide, compressed 2.3  
 Carbon monoxide, refrigerated liquid [(cryogenic liquid)] 2.3  
 Carbon tetrachloride 6.1 II  
 Carbonyl fluoride, compressed 2.3  
 Carbonyl sulfide 2.3  
 Cartridges for weapons, [with bursting charge] 1.1E  
 Cartridges for weapons, [with bursting charge] 1.1F  
 Cartridges for weapons, [with bursting charge] 1.2E  
 Cartridges for weapons, [with bursting charge] 1.2F  
 Cartridges for weapons, blank 1.1C  
 Cartridges for weapons, blank 1.2C  
 Cartridges for weapons, blank [or] Cartridges, small arms, blank 1.3C  
 Cartridges for weapons, inert projectile 1.2C  
 Cartridges for weapons, inert projectile [or] Cartridges, small arms 1.3C  
 Cartridges, flash 1.1G  
 Cartridges, flash 1.3G  
 Cartridges, oil well 1.3C  
 Cartridges, power device 1.2C  
 Cartridges, power device 1.3C  
 Cartridges, signal 1.3G  
 Cases, combustible, empty, without primer 1.3C  
 Charges, bursting, plastics bonded 1.1D  
 Charges, bursting, plastics bonded 1.2D  
 Charges, demolition 1.1D

Charges, depth 1.1D  
 Charges, explosive, commercial [without detonator] 1.1D  
 Charges, explosive, commercial [without detonator] 1.2D  
 Charges, propelling 1.1C  
 Charges, propelling 1.2C  
 Charges, propelling 1.3C  
 Charges, propelling, for cannon 1.1C  
 Charges, propelling, for cannon 1.2C  
 Charges, propelling, for cannon 1.3C  
 Charges, shaped, [without detonator] 1.1D  
 Charges, shaped, [without detonator] 1.2D  
 Charges, shaped, flexible, linear 1.1D  
 Charges, supplementary explosive 1.1D  
 Chloral, anhydrous, stabilized 6.1 II  
 Chlorine 2.3  
 Chlorine pentafluoride 2.3  
 Chlorine trifluoride 2.3  
 Chloroacetic acid, molten 6.1 II  
 Chloroacetic acid, solid 6.1 II  
 Chloroacetic acid, solution 6.1 II  
 Chloroacetone, stabilized 6.1 I  
 Chloroacetonitrile 6.1 II  
 Chloroacetophenone [(CN), liquid] 6.1 II  
 Chloroacetophenone [(CN), solid] 6.1 II  
 Chloroacetyl chloride 6.1 I  
 Chloroanilines, liquid 6.1 II  
 Chloroanilines, solid 6.1 II  
 Chlorocresols, [liquid] 6.1 II  
 Chlorocresols, [solid] 6.1 II  
 Chlorodinitrobenzenes 6.1 II  
 Chloroformates, toxic, corrosive, flammable, n.o.s. 6.1 II  
 Chloroformates, toxic, corrosive, n.o.s. 6.1 II  
 Chloromethyl chloroformate 6.1 II  
 Chloronitrobenzene, [ortho, liquid] 6.1 II  
 Chloronitrobenzenes [meta or para, solid] 6.1 II  
 Chloropicrin 6.1 I  
 Chloropicrin and methyl bromide mixtures 2.3  
 Chloropicrin and methyl chloride mixtures 2.3  
 Chloropicrin mixtures, n.o.s. 6.1 I  
 Chloropicrin mixtures, n.o.s. 6.1 II  
 Chloropivaloyl chloride 6.1 I  
 Coal gas, compressed 2.3  
 Components, explosive train, n.o.s. 1.1B  
 Components, explosive train, n.o.s. 1.2B  
 Compounds, tree killing, liquid [or] Compounds, weed killing, liquid 6.1 I  
 Compounds, tree killing, liquid [or] Compounds, weed killing, liquid 6.1 II  
 Compressed gas, toxic, corrosive, n.o.s. [Inhalation Hazard Zone A] 2.3  
 Compressed gas, toxic, corrosive, n.o.s. [Inhalation Hazard Zone B] 2.3  
 Compressed gas, toxic, corrosive, n.o.s. [Inhalation Hazard Zone C] 2.3  
 Compressed gas, toxic, corrosive, n.o.s. [Inhalation Hazard Zone D] 2.3  
 Compressed gas, toxic, flammable, corrosive, n.o.s. [Inhalation Hazard Zone A] 2.3  
 Compressed gas, toxic, flammable, corrosive, n.o.s. [Inhalation Hazard Zone B] 2.3  
 Compressed gas, toxic, flammable, corrosive, n.o.s. [Inhalation Hazard Zone C] 2.3  
 Compressed gas, toxic, flammable, corrosive, n.o.s. [Inhalation Hazard Zone D] 2.3  
 Compressed gas, toxic, flammable, n.o.s. [Inhalation hazard Zone

A] 2.3  
 Compressed gas, toxic, flammable, n.o.s. [Inhalation hazard Zone B] 2.3  
 Compressed gas, toxic, flammable, n.o.s. [Inhalation Hazard Zone C] 2.3  
 Compressed gas, toxic, flammable, n.o.s. [Inhalation Hazard Zone D] 2.3  
 Compressed gas, toxic, n.o.s. [Inhalation Hazard Zone A] 2.3  
 Compressed gas, toxic, n.o.s. [Inhalation Hazard Zone B] 2.3  
 Compressed gas, toxic, n.o.s. [Inhalation Hazard Zone C] 2.3  
 Compressed gas, toxic, n.o.s. [Inhalation Hazard Zone D] 2.3  
 Compressed gas, toxic, oxidizing, corrosive, n.o.s. [Inhalation Hazard Zone A] 2.3  
 Compressed gas, toxic, oxidizing, corrosive, n.o.s. [Inhalation Hazard Zone B] 2.3  
 Compressed gas, toxic, oxidizing, corrosive, n.o.s. [Inhalation Hazard Zone C] 2.3  
 Compressed gas, toxic, oxidizing, corrosive, n.o.s. [Inhalation Hazard Zone D] 2.3  
 Compressed gas, toxic, oxidizing, n.o.s. [Inhalation Hazard Zone A] 2.3  
 Compressed gas, toxic, oxidizing, n.o.s. [Inhalation Hazard Zone B] 2.3  
 Compressed gas, toxic, oxidizing, n.o.s. [Inhalation Hazard Zone C] 2.3  
 Compressed gas, toxic, oxidizing, n.o.s. [Inhalation Hazard Zone D] 2.3  
 Contrivances, water-activated, [with burster, expelling charge or propelling charge] 1.2L  
 Contrivances, water-activated, [with burster, expelling charge or propelling charge] 1.3L  
 Copper acetoarsenite 6.1 II  
 Copper arsenite 6.1 II  
 Copper based pesticides, liquid, toxic 6.1 I  
 Copper based pesticides, liquid, toxic 6.1 II  
 Copper based pesticides, liquid, toxic, flammable [flash point not less than 23 degrees C] 6.1 I  
 Copper based pesticides, liquid, toxic, flammable [flash point not less than 23 degrees C] 6.1 II  
 Copper based pesticides, solid, toxic 6.1 I  
 Copper based pesticides, solid, toxic 6.1 II  
 Copper cyanide 6.1 II  
 Cord detonating [or] Fuse detonating [metal clad] 1.2D  
 Cord, detonating [or] Fuse, detonating [metal clad] 1.1D  
 Cord, detonating, [flexible] 1.1D  
 Coumarin derivative pesticides, liquid, toxic 6.1 I  
 Coumarin derivative pesticides, liquid, toxic 6.1 II  
 Coumarin derivative pesticides, liquid, toxic, flammable [flash point not less than 23 degrees C] 6.1 I  
 Coumarin derivative pesticides, liquid, toxic, flammable [flash point not less than 23 degrees C] 6.1 II  
 Coumarin derivative pesticides, solid, toxic 6.1 I  
 Coumarin derivative pesticides, solid, toxic 6.1 II  
 Cresols 6.1 II  
 Cresylic acid 6.1 II  
 Crotonaldehyde, stabilized 6.1 I  
 Cyanide solutions, n.o.s. 6.1 I  
 Cyanide solutions, n.o.s. 6.1 II  
 Cyanides, inorganic, solid, n.o.s. 6.1 I  
 Cyanides, inorganic, solid, n.o.s. 6.1 II  
 Cyanogen 2.3  
 Cyanogen bromide 6.1 I  
 Cyanogen chloride, stabilized 2.3

Cyclobutyl chloroformate 6.1 II  
 Cyclohexyl isocyanate 6.1 I  
 Cyclotetramethylenetetranitramine, desensitized [or] Octogen, desensitized [or] HMX, desensitized 1.1D  
 Cyclotetramethylenetetranitramine, wetted [or] HMX, wetted [or] Octogen, wetted [with not less than 15 percent water, by mass] 1.1D  
 Cyclotrimethylenetrinitramine, desensitized [or] Cyclonite, desensitized [or] Hexogen, desensitized [or] RDX, desensitized 1.1D  
 Cyclotrimethylenetrinitramine, wetted [or] Cyclonite, wetted [or] Hexogen, wetted [or] RDX, wetted [with not less than 15 percent water by mass] 1.1D  
 Deflagrating metal salts of aromatic nitroderivatives, n.o.s. 1.3C  
 Detonator assemblies, non-electric [for blasting] 1.1B  
 Detonators for ammunition 1.1B  
 Detonators for ammunition 1.2B  
 Detonators, electric, [for blasting] 1.1B  
 Detonators, non-electric, [for blasting] 1.1B  
 Diazodinitrophenol, wetted [with not less than 40 percent water or mixture of alcohol and water, by mass] 1.1A  
 Diborane, compressed 2.3  
 Dichloroanilines, liquid 6.1 II  
 Dichloroanilines, solid 6.1 II  
 Dichlorodimethyl ether, symmetrical 6.1 I  
 Dichloroisopropyl ether 6.1 II  
 Dichlorophenyl isocyanates 6.1 II  
 Dichlorosilane 2.3  
 Diethyl sulfate 6.1 II  
 Diethyleneglycol dinitrate, desensitized [with not less than 25 percent non-volatile water-insoluble phlegmatizer, by mass] 1.1D  
 Diketene, stabilized 6.1 I  
 Dimethyl sulfate 6.1 I  
 Dimethyl thiophosphoryl chloride 6.1 II  
 Dimethylhydrazine, symmetrical 6.1 I  
 Dimethylhydrazine, unsymmetrical 6.1 I  
 Dinitroanilines 6.1 II  
 Dinitrobenzenes, [liquid] 6.1 II  
 Dinitrobenzenes, [solid] 6.1 II  
 Dinitrogen tetroxide 2.3  
 Dinitroglycoluril [or] Dingu 1.1D  
 Dinitro-o-cresol, [solid] 6.1 II  
 Dinitro-o-cresol, [solution] 6.1 II  
 Dinitrophenol solutions 6.1 II  
 Dinitrophenol, [dry or wetted with less than 15 percent water, by mass] 1.1D  
 Dinitrophenolates [alkali metals, dry or wetted with less than 15 percent water, by mass] 1.3C  
 Dinitroresorcinol, [dry or wetted with less than 15 percent water, by mass] 1.1D  
 Dinitrosobenzene 1.3C  
 Dinitrotoluenes, [liquid] 6.1 II  
 Dinitrotoluenes, [solid] 6.1 II  
 Dinitrotoluenes, molten 6.1 II  
 Diphenylamine chloroarsine 6.1 I  
 Diphenylchloroarsine, liquid 6.1 I  
 Diphenylchloroarsine, solid 6.1 I  
 Dipicryl sulfide, [dry or wetted with less than 10 percent water, by mass] 1.1D  
 Disinfectants, liquid, toxic, n.o.s. 6.1 I

Disinfectants, liquid, toxic, n.o.s. 6.1 II  
 Disinfectants, solid, toxic, n.o.s. 6.1 II  
 Dyes, liquid, toxic, n.o.s. [or] Dye intermediates, liquid, toxic, n.o.s. 6.1 II  
 Dyes, solid, toxic, n.o.s. [or] Dye intermediates, solid, toxic, n.o.s. 6.1 I  
 Dyes, solid, toxic, n.o.s. [or] Dye intermediates, solid, toxic, n.o.s. 6.1 II  
 Epibromohydrin 6.1 I  
 Epichlorohydrin 6.1 II  
 Ethyl bromide 6.1 II  
 Ethyl bromoacetate 6.1 II  
 Ethyl chloroacetate 6.1 II  
 Ethyl chloroformate 6.1 I  
 Ethyl phosphonothioic dichloride, anhydrous 6.1 I  
 Ethyl phosphonous dichloride, anhydrous [pyrophoric liquid] 6.1 I  
 Ethyl phosphorodichloridate 6.1 I  
 Ethyldichloroarsine 6.1 I  
 Ethylene chlorohydrin 6.1 I  
 Ethylene dibromide 6.1 I  
 Ethylene oxide [or] Ethylene oxide with nitrogen [up to a total pressure of 1MPa (10 bar) at 50 degrees C] 2.3  
 Ethylene oxide and carbon dioxide mixture [with more than 87 percent ethylene oxide] 2.3  
 Ethyleneimine, stabilized 6.1 I  
 Explosive, blasting, type A 1.1D  
 Explosive, blasting, type B 1.1D  
 Explosive, blasting, type C 1.1D  
 Explosive, blasting, type D 1.1D  
 Explosive, blasting, type E 1.1D  
 Ferric arsenate 6.1 II  
 Ferric arsenite 6.1 II  
 Ferrous arsenate 6.1 II  
 Fireworks 1.1G  
 Fireworks 1.2G  
 Fireworks 1.3G  
 Flares, aerial 1.1G  
 Flares, aerial 1.2G  
 Flares, aerial 1.3G  
 Flares, surface 1.1G  
 Flares, surface 1.2G  
 Flares, surface 1.3G  
 Flash powder 1.1G  
 Flash powder 1.3G  
 Fluorine, compressed 2.3  
 Fluoroacetic acid 6.1 I  
 Fracturing devices, explosive, [without detonators for oil wells] 1.1D  
 Furaldehydes 6.1 II  
 Fuse, non-detonating [instantaneous or quickmatch] 1.3G  
 Fuzes, detonating 1.1B  
 Fuzes, detonating 1.2B  
 Fuzes, detonating, [with protective features] 1.1D  
 Fuzes, detonating, [with protective features] 1.2D  
 Fuzes, igniting 1.3G  
 Gas identification set 2.3  
 Gas sample, non-pressurized, toxic, flammable, n.o.s., [not refrigerated liquid] 2.3  
 Gas sample, non-pressurized, toxic, n.o.s., [not refrigerated liquid] 2.3  
 Germane 2.3  
 Grenades, [hand or rifle, with bursting charge] 1.1D  
 Grenades, [hand or rifle, with bursting charge] 1.1F  
 Grenades, [hand or rifle, with bursting charge] 1.2D

Grenades, [hand or rifle, with bursting charge] 1.2F  
Grenades, practice, [hand or rifle] 1.2G  
Grenades, practice, [hand or rifle] 1.3G  
Guanyl nitrosaminoguanylidene hydrazine, wetted [with not less than 30 percent water, by mass] 1.1A  
Guanyl nitrosaminoguanyltetrazene, wetted [or] Tetrazene, wetted [with not less than 30 percent water or mixture of alcohol and water, by mass]  
1.1A  
Hexachlorocyclopentadiene 6.1 I  
Hexaethyl tetraphosphate and compressed gas mixtures 2.3  
Hexaethyl tetraphosphate, [liquid] 6.1 II  
Hexaethyl tetraphosphate, [solid] 6.1 II  
Hexafluoroacetone 2.3  
Hexafluoroacetone hydrate 6.1 II  
Hexamethylene diisocyanate 6.1 II  
Hexanitrodiphenylamine [or] Dipicrylamine [or] Hexyl 1.1D  
Hexanitrostilbene 1.1D  
Hexolite, [or] Hexotol [dry or wetted with less than 15 percent water, by mass] 1.1D  
Hexotonal 1.1D  
Hydrocyanic acid, aqueous solutions [or] Hydrogen cyanide, aqueous solutions [with not more than 20 percent hydrogen cyanide]  
6.1 I  
Hydrocyanic acid, aqueous solutions [with less than 5 percent hydrogen cyanide] 6.1 II  
Hydrogen bromide, anhydrous 2.3  
Hydrogen chloride, anhydrous 2.3  
Hydrogen chloride, refrigerated liquid 2.3  
Hydrogen cyanide, solution in alcohol [with not more than 45 percent hydrogen cyanide] 6.1 I  
Hydrogen cyanide, stabilized [with less than 3 percent water] 6.1 I  
Hydrogen cyanide, stabilized, [with less than 3 percent water and absorbed in a porous inert material] 6.1 I  
Hydrogen iodide, anhydrous 2.3  
Hydrogen selenide, anhydrous 2.3  
Hydrogen sulfide 2.3  
Igniters 1.1G  
Igniters 1.2G  
Igniters 1.3G  
Insecticide gases, toxic, flammable, n.o.s. [Inhalation hazard Zone A] 2.3  
Insecticide gases, toxic, flammable, n.o.s. [Inhalation hazard Zone B] 2.3  
Insecticide gases, toxic, flammable, n.o.s. [Inhalation hazard Zone C] 2.3  
Insecticide gases, toxic, flammable, n.o.s. [Inhalation hazard Zone D] 2.3  
Insecticide gases, toxic, n.o.s. 2.3  
Iron pentacarbonyl 6.1 I  
Isobutyl chloroformate 6.1 I  
Isocyanates, toxic, flammable, n.o.s. [or] Isocyanate solutions, toxic, flammable, n.o.s., [flash point not less than 23 degrees C but not more than 61 degrees C and boiling point less than 300 degrees C]  
6.1 II  
Isocyanates, toxic, n.o.s. [or] Isocyanate solutions, toxic, n.o.s., [flash point more than 61 degrees C and boiling point less than 300

degrees C]

6.1 II

Isocyanatobenzotrifluorides 6.1 II

Isopropyl chloroformate 6.1 I

Jet perforating guns, charged [oil well, without detonator] 1.1D

Jet perforating guns, charged oil well, with detonator 1.1D

Lead arsenates 6.1 II

Lead arsenites 6.1 II

Lead azide, wetted [with not less than 20 percent water or mixture of alcohol and water, by mass] 1.1A

Lead cyanide 6.1 II

Lead styphnate, wetted [or] Lead trinitroresorcinat, wetted [with not less than 20 percent water or mixture of alcohol and water, by mass]

1.1A

Liquefied gas toxic, flammable, corrosive, n.o.s. [Inhalation Hazard Zone B] 2.3

Liquefied gas, toxic, corrosive, n.o.s. [Inhalation Hazard Zone A] 2.3

Liquefied gas, toxic, corrosive, n.o.s. [Inhalation Hazard Zone B] 2.3

Liquefied gas, toxic, corrosive, n.o.s. [Inhalation Hazard Zone C] 2.3

Liquefied gas, toxic, corrosive, n.o.s. [Inhalation Hazard Zone D] 2.3

Liquefied gas, toxic, flammable, corrosive, n.o.s. [Inhalation Hazard Zone A] 2.3

Liquefied gas, toxic, flammable, corrosive, n.o.s. [Inhalation Hazard Zone C] 2.3

Liquefied gas, toxic, flammable, corrosive, n.o.s. [Inhalation Hazard Zone D] 2.3

Liquefied gas, toxic, flammable, n.o.s. [Inhalation Hazard Zone A] 2.3

Liquefied gas, toxic, flammable, n.o.s. [Inhalation Hazard Zone B] 2.3

Liquefied gas, toxic, flammable, n.o.s. [Inhalation Hazard Zone C] 2.3

Liquefied gas, toxic, flammable, n.o.s. [Inhalation Hazard Zone D] 2.3

Liquefied gas, toxic, n.o.s. [Inhalation Hazard Zone A] 2.3

Liquefied gas, toxic, n.o.s. [Inhalation Hazard Zone B] 2.3

Liquefied gas, toxic, n.o.s. [Inhalation Hazard Zone C] 2.3

Liquefied gas, toxic, n.o.s. [Inhalation Hazard Zone D] 2.3

Liquefied gas, toxic, oxidizing, corrosive, n.o.s. [Inhalation Hazard Zone A] 2.3

Liquefied gas, toxic, oxidizing, corrosive, n.o.s. [Inhalation Hazard Zone B] 2.3

Liquefied gas, toxic, oxidizing, corrosive, n.o.s. [Inhalation Hazard Zone C] 2.3

Liquefied gas, toxic, oxidizing, corrosive, n.o.s. [Inhalation Hazard Zone D] 2.3

Liquefied gas, toxic, oxidizing, n.o.s. [Inhalation Hazard Zone A] 2.3

Liquefied gas, toxic, oxidizing, n.o.s. [Inhalation Hazard Zone B] 2.3

Liquefied gas, toxic, oxidizing, n.o.s. [Inhalation Hazard Zone C] 2.3

Liquefied gas, toxic, oxidizing, n.o.s. [Inhalation Hazard Zone D] 2.3

London purple 6.1 II

Magnesium arsenate 6.1 II

Malononitrile 6.1 II

Mannitol hexanitrate, wetted [or] Nitromannite, wetted [with not less than 40 percent water, or mixture of alcohol and water, by mass]

1.1D

Medicine, liquid, toxic, n.o.s. 6.1 II

Medicine, solid, toxic, n.o.s. 6.1 II

Mercaptans, liquid, toxic, flammable, n.o.s. [or] Mercaptan mixtures, liquid, toxic, flammable, n.o.s., [flash point not less than 23 degrees C]

6.1 II  
Mercuric arsenate 6.1 II  
Mercuric chloride 6.1 II  
Mercuric nitrate 6.1 II  
Mercuric potassium cyanide 6.1 I  
Mercurous nitrate 6.1 II  
Mercury acetate 6.1 II  
Mercury ammonium chloride 6.1 II  
Mercury based pesticides, liquid, toxic 6.1 I  
Mercury based pesticides, liquid, toxic 6.1 II  
Mercury based pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 I  
Mercury based pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
Mercury based pesticides, solid, toxic 6.1 I  
Mercury based pesticides, solid, toxic 6.1 II  
Mercury benzoate 6.1 II  
Mercury bromides 6.1 II  
Mercury compounds, liquid, n.o.s. 6.1 I  
Mercury compounds, liquid, n.o.s. 6.1 II  
Mercury compounds, solid, n.o.s. 6.1 I  
Mercury compounds, solid, n.o.s. 6.1 II  
Mercury cyanide 6.1 II  
Mercury fulminate, wetted [with not less than 20 percent water, or mixture of alcohol and water, by mass] 1.1A  
Mercury gluconate 6.1 II  
Mercury iodide, [solid] 6.1 II  
Mercury iodide, [solution] 6.1 II  
Mercury nucleate 6.1 II  
Mercury oleate 6.1 II  
Mercury oxide 6.1 II  
Mercury oxycyanide, desensitized 6.1 II  
Mercury potassium iodide 6.1 II  
Mercury salicylate 6.1 II  
Mercury sulfates 6.1 II  
Mercury thiocyanate 6.1 II  
Metal carbonyls, n.o.s. 6.1 I  
Metal carbonyls, n.o.s. 6.1 II  
Methanesulfonyl chloride 6.1 I  
Methyl bromide 2.3  
Methyl bromide and ethylene dibromide mixtures, liquid 6.1 I  
Methyl bromoacetate 6.1 II  
Methyl chloroacetate 6.1 I  
Methyl chloroformate 6.1 I  
Methyl chloromethyl ether 6.1 I  
Methyl iodide 6.1 I  
Methyl isocyanate 6.1 I  
Methyl isothiocyanate 6.1 I  
Methyl mercaptan 2.3  
Methyl orthosilicate 6.1 I  
Methyl phosphonic dichloride 6.1 I  
Methyl phosphonous dichloride, [pyrophoric liquid] 6.1 I  
Methyl vinyl ketone, stabilized 6.1 I  
Methylchlorosilane 2.3  
Methyldichloroarsine 6.1 I  
Methylhydrazine 6.1 I  
Mines [with bursting charge] 1.1D  
Mines [with bursting charge] 1.1F  
Mines [with bursting charge] 1.2D

Mines [with bursting charge] 1.2F  
 Motor fuel anti-knock mixtures 6.1 I  
 N,N-Dimethylaniline 6.1 II  
 Naphthylthiourea 6.1 II  
 Naphthylurea 6.1 II  
 n-Butyl chloroformate 6.1 I  
 n-Butyl isocyanate 6.1 I  
 N-Butylaniline 6.1 II  
 N-Ethyltoluidines 6.1 II  
 Nickel carbonyl 6.1 I  
 Nickel cyanide 6.1 II  
 Nicotine 6.1 II  
 Nicotine compounds, liquid, n.o.s. [or] Nicotine preparations,  
 liquid, n.o.s. 6.1 I  
 Nicotine compounds, liquid, n.o.s. [or] Nicotine preparations,  
 liquid, n.o.s. 6.1 II  
 Nicotine compounds, solid, n.o.s. [or] Nicotine preparations, solid,  
 n.o.s. 6.1 I  
 Nicotine compounds, solid, n.o.s. [or] Nicotine preparations, solid,  
 n.o.s. 6.1 II  
 Nicotine hydrochloride [or] Nicotine hydrochloride solution 6.1 II  
 Nicotine salicylate 6.1 II  
 Nicotine sulfate, [solid] 6.1 II  
 Nicotine sulfate, [solution] 6.1 II  
 Nicotine tartrate 6.1 II  
 Nitric oxide and dinitrogen tetroxide mixtures [or] Nitric oxide and  
 nitrogen dioxide mixtures 2.3  
 Nitric oxide, compressed 2.3  
 Nitriles, toxic, flammable, n.o.s. 6.1 I  
 Nitriles, toxic, flammable, n.o.s. 6.1 II  
 Nitriles, toxic, n.o.s. 6.1 I  
 Nitriles, toxic, n.o.s. 6.1 II  
 Nitro urea 1.1D  
 Nitroanilines ([o-; m-; p-;]) 6.1 II  
 Nitrobenzene 6.1 II  
 Nitrobenzotrifluorides 6.1 II  
 Nitrocellulose, [dry or wetted with less than 25 percent water (or  
 alcohol), by mass] 1.1D  
 Nitrocellulose, [unmodified or plasticized with less than 18 percent  
 plasticizing substance, by mass] 1.1D  
 Nitrocellulose, plasticized [with not less than 18 percent  
 plasticizing substance, by mass] 1.3C  
 Nitrocellulose, wetted [with not less than 25 percent alcohol, by  
 mass] 1.3C  
 Nitrogen trioxide 2.3  
 Nitroglycerin, desensitized [with not less than 40 percent nonvolatile  
 water insoluble phlegmatizer, by mass] 1.1D  
 Nitroglycerin, solution in alcohol, [with more than 1 percent but not  
 more than 10 percent nitroglycerin] 1.1D  
 Nitroguanidine [or] Picrite, [dry or wetted with less than 20 percent  
 water, by mass] 1.1D  
 Nitrostarch, [dry or wetted with less than 20 percent water, by  
 mass] 1.1D  
 Nitrosyl chloride 2.3  
 Nitrotoluenes, [liquid] [o-; m-; p-;] 6.1 II  
 Nitrotoluenes, [solid] [m-, or p-] 6.1 II  
 Nitrotriazolone [or] NTO 1.1D  
 Nitroxyls, (o-; m-; p-) 6.1 II  
 N-n-Butyl imidazole 6.1 II

n-Propyl chloroformate 6.1 I  
 n-Propyl isocyanate 6.1 I  
 Octolite [or] Octol, [dry or wetted with less than 15 percent water, by mass] 1.1D  
 Octonal 1.1D  
 Oil gas, compressed 2.3  
 Organic phosphate, mixed with compressed gas [or] Organic phosphate compound, mixed with compressed gas [or] Organic phosphorus compound, mixed with compressed gas 2.3  
 Organoarsenic compound, n.o.s. 6.1 I  
 Organoarsenic compound, n.o.s. 6.1 II  
 Organochlorine pesticides, liquid, toxic 6.1 I  
 Organochlorine pesticides, liquid, toxic 6.1 II  
 Organochlorine pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 I  
 Organochlorine pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
 Organochlorine pesticides, solid toxic 6.1 I  
 Organochlorine pesticides, solid toxic 6.1 II  
 Organometallic compound, toxic n.o.s. 6.1 I  
 Organometallic compound, toxic n.o.s. 6.1 II  
 Organophosphorus compound, toxic n.o.s. 6.1 I  
 Organophosphorus compound, toxic n.o.s. 6.1 II  
 Organophosphorus compound, toxic, flammable, n.o.s. 6.1 I  
 Organophosphorus compound, toxic, flammable, n.o.s. 6.1 II  
 Organophosphorus pesticides, liquid, toxic 6.1 I  
 Organophosphorus pesticides, liquid, toxic 6.1 II  
 Organophosphorus pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 I  
 Organophosphorus pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
 Organophosphorus pesticides, solid, toxic 6.1 I  
 Organophosphorus pesticides, solid, toxic 6.1 II  
 Organotin compounds, liquid, n.o.s. 6.1 I  
 Organotin compounds, liquid, n.o.s. 6.1 II  
 Organotin compounds, solid, n.o.s. 6.1 I  
 Organotin compounds, solid, n.o.s. 6.1 II  
 Organotin pesticides, liquid, toxic 6.1 I  
 Organotin pesticides, liquid, toxic 6.1 II  
 Organotin pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 I  
 Organotin pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
 Organotin pesticides, solid, toxic 6.1 I  
 Organotin pesticides, solid, toxic 6.1 II  
 Osmium tetroxide 6.1 I  
 Oxygen difluoride, compressed 2.3  
 Parathion and compressed gas mixture 2.3  
 Pentachloroethane 6.1 II  
 Pentachlorophenol 6.1 II  
 Pentaerythrite tetranitrate, wetted [or] Pentaerythritol tetranitrate, wetted, [or] PETN, wetted [with not less than 25 percent water, by mass, or] Pentaerythrite tetranitrate, [or] Pentaerythritol tetranitrate [or] PETN, desensitized [with not less than 15 percent phlegmatizer by mass] 1.1D  
 Pentolite, [dry or wetted with less than 15 percent water, by mass] 1.1D  
 Perchloromethyl mercaptan 6.1 I

Perchloryl fluoride 2.3  
Pesticides, liquid, toxic, flammable, n.o.s. [flash point not less than 23 degrees C] 6.1 I  
Pesticides, liquid, toxic, flammable, n.o.s. [flash point not less than 23 degrees C] 6.1 II  
Pesticides, liquid, toxic, n.o.s. 6.1 I  
Pesticides, liquid, toxic, n.o.s. 6.1 II  
Pesticides, solid, toxic, n.o.s. 6.1 I  
Pesticides, solid, toxic, n.o.s. 6.1 II  
Phenacyl bromide 6.1 II  
Phenol solutions 6.1 II  
Phenol, molten 6.1 II  
Phenol, solid 6.1 II  
Phenoxyacetic acid derivative pesticide, liquid, toxic 6.1 I  
Phenoxyacetic acid derivative pesticide, liquid, toxic 6.1 II  
Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 I  
Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
Phenoxyacetic acid derivative pesticide, solid, toxic 6.1 I  
Phenoxyacetic acid derivative pesticide, solid, toxic 6.1 II  
Phenyl chloroformate 6.1 II  
Phenyl isocyanate 6.1 I  
Phenyl mercaptan 6.1 I  
Phenyl urea pesticides, liquid, toxic 6.1 I  
Phenyl urea pesticides, liquid, toxic 6.1 II  
Phenylcarbylamine chloride 6.1 I  
Phenylhydrazine 6.1 II  
Phenylmercuric acetate 6.1 II  
Phenylmercuric compounds, n.o.s. 6.1 I  
Phenylmercuric compounds, n.o.s. 6.1 II  
Phenylmercuric hydroxide 6.1 II  
Phenylmercuric nitrate 6.1 II  
Phosgene 2.3  
Phosphine 2.3  
Phosphorus pentafluoride, compressed 2.3  
Phosphorus trichloride 6.1 I  
Potassium arsenate 6.1 II  
Potassium arsenite 6.1 II  
Potassium cuprocyanide 6.1 II  
Potassium cyanide 6.1 I  
Potassium fluoroacetate 6.1 I  
Potassium metavanadate 6.1 II  
Powder cake, wetted [or] Powder paste, wetted [with not less than 17 percent alcohol by mass] 1.1C  
Powder cake, wetted [or] Powder paste, wetted [with not less than 25 percent water, by mass] 1.3C  
Powder, smokeless 1.1C  
Powder, smokeless 1.3C  
Primers, cap type 1.1B  
Primers, tubular 1.3G  
Projectiles, [inert, with tracer] 1.3G  
Projectiles, [with burster or expelling charge] 1.2D  
Projectiles, [with burster or expelling charge] 1.2F  
Projectiles, [with burster or expelling charge] 1.2G  
Projectiles, [with bursting charge] 1.1D  
Projectiles, [with bursting charge] 1.1F  
Projectiles, [with bursting charge] 1.2D  
Projectiles, [with bursting charge] 1.2F

Propellant, liquid 1.1C  
Propellant, liquid 1.3C  
Propellant, solid 1.1C  
Propellant, solid 1.3C  
Propylene chlorohydrin 6.1 II  
Pyrethroid pesticide, liquid toxic 6.1 I  
Pyrethroid pesticide, liquid toxic 6.1 II  
Pyrethroid pesticide, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 I  
Pyrethroid pesticide, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
Pyrethroid pesticide, solid, toxic 6.1 I  
Pyrethroid pesticide, solid, toxic 6.1 II  
RDX and HMX mixtures, wetted [with not less than 15 percent water by mass] [or] RDX and HMX mixtures, desensitized [with not less than 10 percent phlegmatizer by mass]  
1.1D  
Rocket motors 1.1C  
Rocket motors 1.2C  
Rocket motors 1.3C  
Rocket motors with hypergolic liquids [with or without an expelling charge] 1.2L  
Rocket motors with hypergolic liquids [with or without an expelling charge] 1.3L  
Rocket motors, liquid fueled 1.2J  
Rocket motors, liquid fueled 1.3J  
Rockets, [with bursting charge] 1.1E  
Rockets, [with bursting charge] 1.1F  
Rockets, [with bursting charge] 1.2E  
Rockets, [with bursting charge] 1.2F  
Rockets, [with expelling charge] 1.2C  
Rockets, [with expelling charge] 1.3C  
Rockets, [with inert head] 1.2C  
Rockets, [with inert head] 1.3C  
Rockets, line-throwing 1.2G  
Rockets, line-throwing 1.3G  
Rockets, liquid fueled [with bursting charge] 1.1J  
Rockets, liquid fueled [with bursting charge] 1.2J  
sec-Butyl chloroformate 6.1 I  
Selenates [or] Selenites 6.1 I  
Selenium compound, n.o.s. 6.1 I  
Selenium compound, n.o.s. 6.1 II  
Selenium disulfide 6.1 II  
Selenium hexafluoride 2.3  
Signals, distress, [ship] 1.1G  
Signals, distress, [ship] 1.3G  
Signals, railway track, explosive 1.1G  
Signals, railway track, explosive 1.3G  
Signals, smoke 1.1G  
Signals, smoke 1.2G  
Signals, smoke 1.3G  
Silicon tetrafluoride, compressed 2.3  
Silver arsenite 6.1 II  
Silver cyanide 6.1 II  
Sodium ammonium vanadate 6.1 II  
Sodium arsenate 6.1 II  
Sodium arsenite, aqueous solutions 6.1 II  
Sodium arsenite, solid 6.1 II  
Sodium azide 6.1 II

Sodium cacodylate 6.1 II  
 Sodium cuprocyanide, solid 6.1 I  
 Sodium cuprocyanide, solution 6.1 I  
 Sodium cyanide 6.1 I  
 Sodium dinitro-o-cresolate, [dry or wetted with less than 15 percent water, by mass] 1.3C  
 Sodium fluoroacetate 6.1 I  
 Sodium pentachlorophenate 6.1 II  
 Sodium picramate, [dry or wetted with less than 20 percent water, by mass] 1.3C  
 Solids containing toxic liquid, n.o.s. 6.1 II  
 Sounding devices, explosive 1.1D  
 Sounding devices, explosive 1.1F  
 Sounding devices, explosive 1.2D  
 Sounding devices, explosive 1.2F  
 Stibine 2.3  
 Strontium arsenite 6.1 II  
 Strychnine [or] Strychnine salts 6.1 I  
 Substances, explosive, n.o.s. 1.1A  
 Substances, explosive, n.o.s. 1.1C  
 Substances, explosive, n.o.s. 1.1D  
 Substances, explosive, n.o.s. 1.1G  
 Substances, explosive, n.o.s. 1.1L  
 Substances, explosive, n.o.s. 1.2L  
 Substances, explosive, n.o.s. 1.3C  
 Substances, explosive, n.o.s. 1.3G  
 Substances, explosive, n.o.s. 1.3L  
 Substituted nitrophenol pesticides, liquid, toxic 6.1 I  
 Substituted nitrophenol pesticides, liquid, toxic 6.1 II  
 Substituted nitrophenol pesticides, liquid, toxic, flammable [flash point not less than 23 degrees C] 6.1 I  
 Substituted nitrophenol pesticides, liquid, toxic, flammable [flash point not less than 23 degrees C] 6.1 II  
 Substituted nitrophenol pesticides, solid, toxic 6.1 I  
 Substituted nitrophenol pesticides, solid, toxic 6.1 II  
 Sulfur dioxide 2.3  
 Sulfur tetrafluoride 2.3  
 Sulfuryl fluoride 2.3  
 Tear gas candles 6.1 II  
 Tear gas devices [with more than 2 percent tear gas substances, by mass] 6.1 I  
 Tear gas devices [with more than 2 percent tear gas substances, by mass] 6.1 II  
 Tear gas substances, liquid, n.o.s. 6.1 I  
 Tear gas substances, liquid, n.o.s. 6.1 II  
 Tear gas substances, solid, n.o.s. 6.1 I  
 Tear gas substances, solid, n.o.s. 6.1 II  
 Tellurium compound, n.o.s. 6.1 I  
 Tellurium compound, n.o.s. 6.1 II  
 Tellurium hexafluoride 2.3  
 tert-Butyl isocyanate 6.1 I  
 Tetrachloroethane 6.1 II  
 Tetraethyl dithiopyrophosphate 6.1 II  
 Tetrinitroaniline 1.1D  
 Thallium compounds, n.o.s. 6.1 II  
 Thallium nitrate 6.1 II  
 Thiocarbamate pesticide, liquid, toxic 6.1 I  
 Thiocarbamate pesticide, liquid, toxic 6.1 II  
 Thiocarbamate pesticide, liquid, toxic, flammable, [flash point not

less than 23 degrees C] 6.1 I  
Thiocarbamate pesticide, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
Thiocarbamate pesticides, solid, toxic 6.1 I  
Thiocarbamate pesticides, solid, toxic 6.1 II  
Thioglycol 6.1 II  
Thiolactic acid 6.1 II  
Thiophosgene 6.1 II  
Toluene diisocyanate 6.1 II  
Toluidines [liquid] 6.1 II  
Toluidines [solid] 6.1 II  
Torpedoes [with bursting charge] 1.1D  
Torpedoes [with bursting charge] 1.1E  
Torpedoes [with bursting charge] 1.1F  
Torpedoes, liquid fueled, [with inert head] 1.3J  
Torpedoes, liquid fueled, [with or without bursting charge] 1.1J  
Toxic liquid, corrosive, inorganic, n.o.s. 6.1 I  
Toxic liquid, corrosive, inorganic, n.o.s. 6.1 II  
Toxic liquid, corrosive, inorganic, n.o.s. [Inhalation Hazard, Packing Group I, Zone A] 6.1 I  
Toxic liquid, corrosive, inorganic, n.o.s. [Inhalation Hazard, Packing Group I, Zone B] 6.1 I  
Toxic liquid, inorganic, n.o.s. 6.1 I  
Toxic liquid, inorganic, n.o.s. 6.1 II  
Toxic liquid, inorganic, n.o.s. [Inhalation Hazard, Packing Group I, Zone A] 6.1 I  
Toxic liquid, inorganic, n.o.s. [Inhalation Hazard, Packing Group I, Zone B] 6.1 I  
Toxic liquids, corrosive, organic, n.o.s. 6.1 I  
Toxic liquids, corrosive, organic, n.o.s. 6.1 II  
Toxic liquids, corrosive, organic, n.o.s., [inhalation hazard, Packing Group I, Zone A] 6.1 I  
Toxic liquids, corrosive, organic, n.o.s., [inhalation hazard, Packing Group I, Zone B] 6.1 I  
Toxic liquids, flammable, organic, n.o.s. 6.1 I  
Toxic liquids, flammable, organic, n.o.s. 6.1 II  
Toxic liquids, flammable, organic, n.o.s., [inhalation hazard, Packing Group I, Zone A] 6.1 I  
Toxic liquids, flammable, organic, n.o.s., [inhalation hazard, Packing Group I, Zone B] 6.1 I  
Toxic liquids, oxidizing, n.o.s. 6.1 I  
Toxic liquids, oxidizing, n.o.s. 6.1 II  
Toxic liquids, oxidizing, n.o.s. [Inhalation hazard, Packing Group I, Zone A] 6.1 I  
Toxic liquids, oxidizing, n.o.s. [Inhalation Hazard, Packing Group I, Zone B] 6.1 I  
Toxic liquids, water-reactive, n.o.s. 6.1 I  
Toxic liquids, water-reactive, n.o.s. 6.1 II  
Toxic liquids, water-reactive, n.o.s. [Inhalation hazard, packing group I, Zone A] 6.1 I  
Toxic liquids, water-reactive, n.o.s. [Inhalation hazard, packing group I, Zone B] 6.1 I  
Toxic solid, corrosive, inorganic, n.o.s. 6.1 I  
Toxic solid, corrosive, inorganic, n.o.s. 6.1 II  
Toxic solid, inorganic, n.o.s. 6.1 I  
Toxic solid, inorganic, n.o.s. 6.1 II  
Toxic solids, corrosive, organic, n.o.s. 6.1 I  
Toxic solids, corrosive, organic, n.o.s. 6.1 II  
Toxic solids, flammable, organic, n.o.s. 6.1 I

Toxic solids, flammable, organic, n.o.s. 6.1 II  
 Toxic solids, organic, n.o.s. 6.1 I  
 Toxic solids, organic, n.o.s. 6.1 II  
 Toxic solids, oxidizing, n.o.s. 6.1 I  
 Toxic solids, oxidizing, n.o.s. 6.1 II  
 Toxic solids, self-heating, n.o.s. 6.1 I  
 Toxic solids, self-heating, n.o.s. 6.1 II  
 Toxic solids, water-reactive, n.o.s. 6.1 I  
 Toxic solids, water-reactive, n.o.s. 6.1 II  
 Toxic, liquids, organic, n.o.s. 6.1 I  
 Toxic, liquids, organic, n.o.s. 6.1 II  
 Toxic, liquids, organic, n.o.s. [Inhalation hazard, Packing Group I, Zone A] 6.1 I  
 Toxic, liquids, organic, n.o.s. [Inhalation hazard, Packing Group I, Zone B] 6.1 I  
 Tracers for ammunition 1.3G  
 Triazine pesticides, liquid, toxic 6.1 I  
 Triazine pesticides, liquid, toxic 6.1 II  
 Triazine pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 I  
 Triazine pesticides, liquid, toxic, flammable, [flash point not less than 23 degrees C] 6.1 II  
 Triazine pesticides, solid, toxic 6.1 I  
 Triazine pesticides, solid, toxic 6.1 II  
 Tributylamine 6.1 II  
 Trichlorobutene 6.1 II  
 Tricresyl phosphate [with more than 3 percent ortho isomer] 6.1 II  
 Trifluoroacetyl chloride 2.3  
 Trifluorochloroethylene, stabilized 2.3  
 Trimethoxysilane 6.1 I  
 Trimethylacetyl chloride 6.1 I  
 Trinitroaniline [or] Picramide 1.1D  
 Trinitroanisole 1.1D  
 Trinitrobenzene, [dry or wetted with less than 30 percent water, by mass] 1.1D  
 Trinitrobenzenesulfonic acid 1.1D  
 Trinitrobenzoic acid, [dry or wetted with less than 30 percent water, by mass] 1.1D  
 Trinitrochlorobenzene [or] Picryl chloride 1.1D  
 Trinitrofluorenone 1.1D  
 Trinitro-meta-cresol 1.1D  
 Trinitronaphthalene 1.1D  
 Trinitrophenetole 1.1D  
 Trinitrophenol [or] Picric acid, [dry or wetted with less than 30 percent water, by mass] 1.1D  
 Trinitrophenylmethylnitramine [or] Tetryl 1.1D  
 Trinitroresorcinol [or] Styphnic acid, [dry or wetted with less than 20 percent water, or mixture of alcohol and water, by mass] 1.1D  
 Trinitroresorcinol, wetted [or] Styphnic acid, wetted [with not less than 20 percent water, or mixture of alcohol and water by mass] 1.1D  
 Trinitrotoluene [or] TNT, [dry or wetted with less than 30 percent water, by mass] 1.1D  
 Trinitrotoluene and Trinitrobenzene mixtures [or] TNT and trinitrobenzene mixtures [or] TNT and hexanitrostilbene mixtures [or] Trinitrotoluene and hexanitrostilbene mixtures 1.1D  
 Trinitrotoluene mixtures containing Trinitrobenzene and Hexanitrostilbene [or] TNT mixtures containing trinitrobenzene and hexanitrostilbene

1.1D  
Tris-(1-aziridinyl)phosphine oxide, solution 6.1 II  
Tritonal 1.1D  
Tungsten hexafluoride 2.3  
Urea nitrate, [dry or wetted with less than 20 percent water, by mass] 1.1D  
Vanadium compound, n.o.s. 6.1 I  
Vanadium compound, n.o.s. 6.1 II  
Vanadyl sulfate 6.1 II  
Vinyl chloroacetate 6.1 II  
Vinylpyridines, stabilized 6.1 II  
Warheads, rocket [with bursting charge] 1.1D  
Warheads, rocket [with bursting charge] 1.1F  
Warheads, rocket [with bursting charge] 1.2D  
Warheads, torpedo [with bursting charge] 1.1D  
Xylenols 6.1 II  
Xylidines, solid 6.1 II  
Xylidines, solution 6.1 II  
Xylyl bromide 6.1 II  
Zinc arsenate [or] Zinc arsenite [or] Zinc arsenate and zinc arsenite mixtures 6.1 II  
Zinc cyanide 6.1 I  
Zirconium picramate, [dry or wetted with less than 20 percent water, by mass] 1.3C