

## D-1. WASTE MANAGEMENT

### I. SCOPE

These procedures apply to all facilities, including off-site, of the NCI-Frederick, including government owned and operated as well as government owned and contractor operated. Specific requirements for the management of other solid wastes are more fully explained in other chapters of this manual.

### II. PURPOSE

This section summarizes the responsibilities, requirements, and instructions for the management of solid wastes generated at the NCI-Frederick including biohazardous, chemical, radiological, and mixed wastes.

### III. DEFINITIONS

**Medical Waste** - At the NCI-Frederick, medical waste includes special medical waste as defined by COMAR 10.06.06.03, **and** other laboratory items which may be perceived by the public as medical waste, such as pipets, culture tubes/flasks, etc.

**Mixed Waste** - Hazardous waste that also contains low-level nuclear waste as defined in Maryland Environmental Article §7-201.

**Radioactive Waste** - Solid, liquid or gaseous materials from nuclear operations that are radioactive or become radioactive and for which there is no further use.

**Hazardous Waste** - A solid, liquid, or gas that is no longer suited for its intended purpose and that is ignitable, corrosive, toxic, reactive, or listed by the United States Environmental Protection Agency (EPA) in 40 CFR 261, or the Maryland Department of the Environment (MDE) in COMAR 26.13. In general, excess or spent hazardous material to be disposed of or recycled is considered hazardous waste.

**Satellite Accumulation Point** - A point at or near any point of generation where wastes initially accumulate, which is under control of the operator of the process generating the waste, and where as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste is collected in containers.

**Sharps** - Syringe, needle, surgical instrument, or other article that has cut punctured human skin or come in contact with a known infectious agent.

**Solid Waste** - Any discarded material as defined by COMAR 26.13.02.02 which is not otherwise excluded from regulation. Solid waste includes the following:

1. Garbage, refuse, or sludge.
2. Solid, liquid, semi-solid, or contained gaseous material which is abandoned, recycled, or considered inherently waste-like.

Solid waste does not include the following:

1. Industrial wastewater discharges subject to regulation under Section 402 of the Clean Water Act, as amended.
2. Source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended.

**Special Medical Waste** - waste that contains anatomical material; blood; blood soiled articles; contaminated material; microbiological laboratory waste; or sharps.

#### IV. RESPONSIBILITIES

- A. Supervisors are responsible for enforcing the requirements and practices contained in this procedure, and ensuring that all wastes generated as a result of activities under their supervision are properly segregated, labeled, containerized, and transferred.
- B. Employees are responsible for understanding and complying with all policies governing management of wastes generated by their activities while working at the NCI-Frederick.
- C. U.S. Army Garrison, Fort Detrick (USAG), through an Interdepartmental Support Agreement, is responsible for the transportation, incineration and land filling of all solid wastes (except hazardous wastes) generated by activities at the NCI-Frederick.
- D. Facilities Maintenance and Engineering (FME) is responsible for collecting solid wastes (except hazardous wastes and special medical wastes) from the NCI-Frederick campus and placing these wastes in designated containers for pickup by either the USAG or the Environment, Health and Safety Program (EHS).

- E. EHS is responsible for policies and procedures for the classification, handling, and disposal of solid, medical, radioactive, and hazardous wastes generated at the NCI-Frederick.

## V. PROCEDURES

### A. Medical Waste

1. All medical waste, including autoclaved waste, red bagged material, broken glass boxes, and biomedical waste boxes shall be placed in the medical waste carts. NEVER use any dumpster for disposal of medical waste, including needles, other sharps, animals or pathological waste. Never leave medical waste on the ground.

- a. Biomedical waste containers, item number SPWH-66401506 are recommended for the disposal of medical waste. These are designed to be used one time and are not to be reused. They provide adequate protection for the personnel handling the waste and clearly identify the waste as medical. Material which is to be autoclaved should be placed in polypropylene bags, item numbers SPWH-810510031 (30" x 36") or SPWH-81051033 (12" x 24"). Red-tinted bags may also be used for non-infectious laboratory waste. Two sizes are available (SPWH-81050124 (24" x 24") and SPWH-81050122 (36" x 48")). All are available and stocked in the warehouse.

**NOTE:** Medical waste containers and biomedical waste boxes must NOT be filled past the fill line. Red bagged waste must be put in medical waste carts. Red bags used in small administrative trash cans are not recommended.

- b. Animals and other pathological waste should be properly packaged in a leakproof container and placed in the designated animal cart before 10 a.m. Monday – Friday. Animal carts can be requested from the USAG by calling 9-619-2323. Animal bedding should also be properly packaged and put in the medical waste carts.

- c. Needles and syringes shall be kept in the custody of a responsible person at all times until disposed. Two sizes of sharps containers (SPWH-66401505 (5 gal.) and SPWH-66401504 (9.5 qt.)) are stocked in the warehouse and shall be used for the disposal of needles and syringes. These containers shall be sealed when three-fourths full and placed in the medical waste cart outside the building (FME service workers do not handle needles and syringes).
- d. Other sharps, including scalpels, razor blades, broken glass, glass pipettes and other items which may penetrate human skin, shall be placed in a rigid puncture-resistant container and handled as medical waste. The rigid puncture-resistant container shall be placed in the medical waste cart with the other medical waste.
- e. All potentially infectious liquid wastes must be appropriately disinfected before discharge into any drain. The use of sodium hypochlorite solution, e.g. CLOROX bleach, is recommended. Adding one part bleach to nine parts waste is sufficient (final solution 1:10 bleach:waste). Allow the bleach-waste mixture to sit for a minimum of 30 minutes before the liquid is poured down the drain. Other liquid disinfectants may be used with prior approval of EHS. Call Biological Safety for guidance at x5918.

B. Chemical Waste

- 1. Waste is legally defined as hazardous waste in either of two ways: the waste may be specifically listed as hazardous by the EPA or the MDE ("listed hazardous waste"), or it may exhibit one of four hazardous characteristics as defined by the EPA or the MDE ("characteristic hazardous waste"). If you are unsure about any waste material, contact the EHS at x1451. "Listed hazardous wastes" generated on a recurring basis at the NCI-Frederick are identified in Table D-1-2 and D-1-3.

In addition to "listed hazardous wastes", "characteristic hazardous wastes" are also subject to regulation. The four characteristics are:

**Ignitable** - includes any liquid with a flash point less than 140°F (60°C), as well as any oxidizers, flammable solids, and flammable gases.

**Note:** wastes containing 10% or more of common solvents such as methanol or ethanol have a flash point below 140°F and are ignitable hazardous waste.

**Corrosive** - includes any aqueous liquid with a pH ≤2 or ≥12.5, and any liquid which corrodes steel faster than the designated rate.

**Reactive** - includes explosives, cyanide or sulfide-bearing wastes, and materials which, when mixed with water, react violently or generate flammable or toxic gases.

**Toxic** - includes wastes which, under specified test conditions, yield an extract containing any of the compounds in Table D-1-1 in excess of their regulatory levels. As an example, note that as little as 2 drops of chloroform dissolved in 20 L of waste must be handled as hazardous waste.

The basic rules for managing chemical wastes generated at the NCI-Frederick are:

- a. **NEVER** pour hazardous wastes down the drain. Call EHS if you are not certain whether a waste is suitable for drain disposal.
- b. Solvents and flammable wastes shall be poured into waste containers which are available from EHS (x5718).
- c. Segregate halogenated and non-halogenated solvent wastes. Common halogenated solvents include methylene chloride, chloroform, freons, and trichloroethylene. Common non-halogenated solvents include ether, methanol, isopropanol, toluene, and xylene.
- d. The following is a partial list of waste streams that shall not be co-mingled with other wastes in the same container because of incompatibilities and/or disposal/recycling requirements:
  - Oils (vacuum pump)

Flammable liquids (isopropyl alcohol, ethanol, kerosene, methyl ethyl ketone, acetone, ether, methanol, toluene, xylene, etc.)

Halogenated solvents (methylene chloride, 1,1,1 - Trichloroethane, chloroform, freons, trichloroethylene)

Oxidizers (>40% nitric acid, ammonium nitrate, chromic acid, ammonium persulfate, etc.)

Poisons (mercury, arsenic, etc.)

Organic acids (acetic acid, formic acid, etc.)

Inorganic acids (hydrochloric acid, sulfuric acid, hydrofluoric acid, etc.)

Mixed waste (phenol/chloroform mixtures or pump oil contaminated with  $^3\text{H}$ ,  $^{14}\text{C}$ ,  $^{32}\text{P}$ , etc., scintillation fluids containing more than 0.05  $\mu\text{Ci}/\text{gram}$  of  $^3\text{H}$  or  $^{14}\text{C}$ , scintillation fluids containing isotopes other than  $^3\text{H}$  or  $^{14}\text{C}$ , etc.)

**Note 1:** Further segregation within the above waste streams may be required because of chemical incompatibilities. If uncertain as to waste collection and storage requirements, contact EHS.

**Note 2:** Flammable solvents, halogenated solvents, and organic acids shall be segregated to the extent practicable to minimize recycling or disposal costs.

**Note 3:** Avoid generating mixed waste by substituting non-regulated chemicals and solvents, using non-radioactive assay techniques, and properly identifying and separating chemical and radioactive wastes.

- e. Attach a completed “NCI-Frederick Hazardous Waste Disposal Summary Sheet” (Exhibit D-1-2) to each waste container. This sheet contains the following required information:

- I. On-site generator's name, building and room number, telephone extension, and center number;
- ii. Satellite accumulation start date (i.e., date waste is first added to the container at a satellite accumulation point); and container size (e.g. 20 liters).
- iii. Waste contents: each time waste is added to the container, list the following information:
  - (a) chemical name(s);
  - (b) amount added to the container;
  - (c) initials of person adding waste to the container;

**Note:** Sheets are available from EHS

- f. Waste containers must be closed at all times unless waste is being added to the container. Check containers regularly to make sure that they are not leaking. If containers are found to be leaking, notify EHS at x911.
- g. Leave at least 3 inches of head space in any hazardous waste drum containing liquid.
- h. Hazardous wastes are picked up weekly. Call EHS at x5718 to arrange for pickup. All wastes shall be properly identified. Check the Material Safety Data Sheet (MSDS) to identify hazardous components in products such as batteries, maintenance and cleaning products, and photographic chemicals. Many of these must be disposed of as hazardous waste.
- I. **NEVER** place hazardous wastes in the trash. If not hazardous waste, burnable items (e.g., benchtop liners, pipet tips) minimally contaminated with carcinogens should be double-bagged and placed in the medical waste carts for pickup by the Army and incineration.

**Note:** contact EHS for approval before using this disposal method.

- j. Dilute aqueous solutions of many carcinogens may be poured into special one gallon plastic containers packed with absorbent material, which are available from the warehouse. Fill until free liquid can be seen at the bottom of the container. When free liquid is visible, the container shall be capped, placed in a plastic bag, labeled "Caution - Chemical Carcinogen", and placed in a medical waste cart for incineration by USAG personnel. Stock solutions, undiluted carcinogens, and any regulated hazardous wastes must be disposed of through EHS.

**Note:** contact EHS for approval before using this disposal method.

- k. Empty chemical bottles should be rinsed before disposal as non-contaminated trash. Empty bottles with residues of acutely hazardous or "P-listed" chemicals (Table D-1-4) must be disposed of as hazardous waste, or the bottle must be triple-rinsed with water, detergent or an appropriate solvent, and the rinsate must be collected for disposal as hazardous waste. Examples of "P-listed" chemicals include cyanides, sodium azide, and epinephrine. Note that in Maryland, wastes containing as little as 500 ppm of polychlorinated biphenyls are considered acutely hazardous, and container residues must be disposed of as hazardous waste.
- l. Do **NOT** mix radioactive and chemical wastes. Disposal of such mixtures may be impossible, extremely difficult, or expensive.

C. Radiological Waste

1. This includes those solid and liquid wastes with measurable quantities of radiation. EHS personnel will pick up radioactive wastes. For questions or to arrange for pickup call x1384.
- a. **Solid Radioactive Waste** - shall be segregated based on the isotopic half-life as follows:
- i. Class 1: isotopes with a half-life less than 15 days (e.g.,  $^{32}\text{P}$ ,  $^{111}\text{In}$ ).
- ii. Class 2: isotopes with a half-life of from 15 to 100

days (e.g.,  $^{33}\text{P}$ ,  $^{51}\text{Cr}$ ,  $^{125}\text{I}$ ).

- iii. Class 3: isotopes with a half-life greater than 100 days (e.g.,  $^3\text{H}$ ,  $^{14}\text{C}$ ,  $^{63}\text{Ni}$ ).

Each class of waste will be placed into separate, clear, plastic bags, which are labeled to indicate each name, date, program number, isotope and associated activity. The labels (SPWH # 66401279) are available from the warehouse. The bags are then placed into the 30-gallon solid waste drums labeled and supplied by EHS.

- b. **Radioactive Animal Carcasses** - Animal carcasses or animal parts containing radioisotopes shall be segregated and sealed in polyethylene bags. These bags must be properly labeled to include the name, date, program number, isotope(s), number of animals, and total activity using label # SPWH # 66401279. The animal carcasses must be frozen at time of transfer to EHS.
- c. **Scintillation Vials** - Used vials are returned to the compartmentalized cardboard containers or double bagged after separation into the following groups:
- i. Tritium ( $^3\text{H}$ ) and carbon ( $^{14}\text{C}$ ): vials containing less than 0.05 microcuries/gram of fluid ( $3 \times 10^4 \text{ cpm/ml}$  fluid) are not considered radioactive for disposal purposes and may be placed with background vials. Tritium ( $^3\text{H}$ ) and carbon ( $^{14}\text{C}$ ) vials containing greater than an average of 0.05 microcuries/gram of fluid must be kept separate from all other vials.
  - ii. Phosphorus ( $^{32}\text{P}$ ), and iodine ( $^{131}\text{I}$ ) vials may be mixed together and will be disposed of as radioactive waste.
  - iii. All other isotopes with a half-life of less than 100 days, such as sulfur ( $^{35}\text{S}$ ), chromium ( $^{51}\text{Cr}$ ), selenium ( $^{75}\text{Se}$ ), and iodine ( $^{125}\text{I}$ ) may be mixed together and will be disposed of as radioactive waste.

Each group of waste will be labeled with a dry waste tag to indicate name, date, program number, isotope,

and associated activity, and labeled with the "NCI-Frederick Hazardous Waste Disposal Summary Sheet" to identify all chemicals and/or scintillation cocktails present. Non-hazardous cocktails should be used whenever possible to avoid generation of mixed waste.

**d. Liquid Radioactive Waste**

- i. Hazardous radioactive waste: This type of waste, considered "mixed waste", is under dual regulation by the EPA and the NRC. At present, a limited disposal mechanism exists for this waste type and its generation should be minimized as much as possible.
- ii. Aqueous radioactive waste: Waste of this type is collected and assayed by EHS personnel and disposed of through the Hazardous Waste Disposal Contractor.

Carboys containing chemicals such as ethanol, methanol greater than 5% and/or containing any F-listed chemicals (Table D-1-2), and/or any toxic chemicals (Table D-1-1) will be considered mixed waste and must be kept separate from the aqueous radioactive carboys. Contact EHS (x5718 or x1384) for further guidance and disposal of mixed waste.

Beta and gamma emitters may be mixed in a 5 gallon carboy according to the half-life considerations described for the solid waste categories except for ( $^{35}\text{S}$ ) which must be kept separate from other mixtures and ( $^{111}\text{In}$ ) which must be kept separate as well. The total activity per carboy should not exceed the following levels per isotope listed:

Carbon ( $^{14}\text{C}$ )	3 millicuries
Tritium ( $^{3}\text{H}$ )	10 millicuries of each
Sulfur ( $^{35}\text{S}$ )	4 millicuries
Iodine ( $^{125}\text{I}$ )	1 millicuries
Chromium ( $^{51}\text{Cr}$ )	1 millicuries
Phosphorus ( $^{33}\text{P}$ )	1 millicurie
Phosphorus ( $^{32}\text{P}$ )	1 millicurie

05/2004

Indium (<sup>111</sup>In)

1 millicurie

High activity, low volume phosphorus or sulfur waste (>1 mCi) should be isolated in a separate container, and will be collected by EHS personnel for disposal through the Hazardous Waste Disposal Contractor.

D. Ordinary (Non-Medical, Non-Hazardous, Non-Radioactive) Solid Wastes

1. Burnable waste includes most materials from non-laboratory work areas, including offices, lunch rooms and meeting rooms. This waste should be placed in the burnable dumpsters or recycled, as appropriate. It must be realized that although the wastes in the burnable dumpsters are usually incinerated, there are times when it is taken directly to the Fort Detrick landfill by the Army. Therefore, **laboratory wastes must never be placed in any dumpster, even the ones designated as "BURNABLE".**
2. Non-burnable waste includes scrap metal, aluminum cans, glass, etc. Many of these items can be recycled. Call the Fort Detrick Recycling Center for information on the recycling program at 9-619-2323.
3. Waste generated off the NCI-Frederick should **not** be brought onto Fort Detrick for disposal. The only exception is material that can be recycled by the USAG recycling program. The appropriate recycling container shall be used. Any questions about what materials can be recycled should be directed to the USAG Recycling Center at 9-619-2323.

**Note:** Do Not use a red bag for ordinary solid wastes or recycling items. Red bags are only for medical waste.

E. Waste Minimization

1. The NCI-Frederick is required to minimize hazardous waste generated. Useful waste minimization techniques include:
  - a. Substitution of less hazardous products. For example, replace mercury thermometers with non-mercury alternatives available from the supply warehouse. Replace flammable and potentially toxic scintillation counting fluids with environmentally friendly alternatives available from the

central supply warehouse.

- b. Ordering chemicals in minimum quantities. Excessive chemical orders represent a significant waste of resources. Some vendors have begun offering smaller-size packages to reduce waste, enhance safety, and avoid problems associated with storage and contamination.
- c. Checking the surplus chemical listing before ordering chemicals. EHS provides a list of surplus chemicals available at no cost. Most surplus chemicals are in unopened containers, and a list is circulated every other month. Contact EHS at x5718 or check online at [web.ncifcrf.gov/campus/safety/avail/index.stm](http://web.ncifcrf.gov/campus/safety/avail/index.stm) for updated surplus inventory lists.
- d. Recovering and reusing chemicals. Mercury and many solvents can be redistilled and reused, and the procedure is economical for medium to large scale processes. Contact EHS for more details.
- e. Using silver-recovery units on all photographic processing equipment. These units recover significant amounts of silver which would otherwise be released into the environment.
- f. Order compressed gases from vendors that offer returnable cylinders. Non-returnable cylinders such as lecture bottles may incur significant disposal costs.
- g. Maintenance products used for degreasing operations and spray paints containing environmentally friendly chemicals should be used instead of degreasers containing halogenated solvent.

## VI. REFERENCES

Fort Detrick Regulation 385-4 - Management of Medical Waste, Section D-1

05/2004

Health, Safety and Environmental Compliance Program Manual - Hazardous Waste Disposal  
Waste Minimization SOP  
COMAR 26.13 Disposal of Controlled Hazardous Substances  
COMAR 10.06.06 Handling, Treatment, and Disposal of Special Medical Waste  
40 CFR 260: Hazardous Waste Management System, General  
40 CFR 261: Identification and Listing of Hazardous Waste  
40 CFR 262: Standards Applicable to Generators of Hazardous Waste  
Executive Order 13148: Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements.  
NCI-Frederick Pollution Prevention Plan  
Maryland Environment Article, Title 7, Subtitle 2 - Controlled Hazardous Substances

**Exhibit D-1-1**  
**WASTE MANAGEMENT GUIDE**

WASTE TYPE	METHOD OF DISPOSAL	COMMENTS
Potentially infectious material, i.e. blood, serum, bacterial cultures, viral cultures, etc.	Disinfect using appropriate chemical or autoclave. Put in biomedical waste box or red-tinted bag. Put in medical waste cart.	For autoclaving, use autoclave bag (not red-tinted bag). All waste from BSL-3 labs must be disinfected or autoclaved before removal from lab.
Other laboratory waste, i.e., gloves, gowns, culture tubes, petri plates, pipettes, vials, animal bedding, etc.	Biomedical waste container, broken glass boxes, or red-tinted bags available from warehouse. Place in medical waste cart.	Red-tinted plastic bags must not be used for materials which may puncture bag.
Needles and syringes	Special sharps container available from warehouse, container stays in lab until ready for pickup. Put in medical waste cart outside the building.	Seal sharps containers when three-fourths full.
Animals, pathological waste	Place in bags and put in designated animal carts before 10 a.m. Monday - Friday.	Call 9-619-2323 for pickup.
Chemical waste <sup>1</sup>	Place in appropriate containers available from waste management or in DOT-specification drum.	Attach NCI-Frederick Hazardous Waste Summary Sheet to each container. Call EHS, X5718 for pickup.
Radioactive waste <sup>2</sup>	Place in appropriate container.	Call EHS, X1384 for pickup.
Non-medical waste, burnable, i.e. paper products, food items, and Styrofoam.	Office trash cans or other appropriate container.	Place in burnable dumpster unless it can be recycled.
Recycling Non-burnable, scrap metal, building materials, paper, cardboard, etc.	Place in appropriate recycling containers.	Call the Army Recycling Center (619-2323) with questions about recycling.

<sup>1</sup> Specific instructions for the packaging and disposal of chemical waste can be obtained by calling EHS at X5718

<sup>2</sup> Specific instructions for the packaging and disposal of radioactive wastes can be obtained by calling EHS at X1384

**Exhibit D-1-2**  
**NCI-FREDERICK HAZARDOUS WASTE DISPOSAL**  
**SUMMARY SHEET**

**Print Your Name:**

Bldg. & Room: \_\_\_\_\_ Department: \_\_\_\_\_  
Center No: \_\_\_\_\_ Satellite Accumulation  
Start Date: \_\_\_\_\_

**INSTRUCTIONS:** Please fill out one Summary Sheet for each container of waste. You must accurately summarize the container contents. Amounts must be in liters or kilograms. Use proper chemical names and write neatly. DO NOT use chemical formulas, structures, or abbreviations. Pickups will be every Wednesday morning. For pickup call X5718.

## **CONTAINER SUMMARY:**

**TOTAL AMOUNT**  
See back for log sheet

## **Exhibit D-1-2 (cont.)**

## **NCI-FREDERICK HAZARDOUS WASTE LOG SHEET**

**INSTRUCTIONS:** Please use this LOG SHEET to track wastes as they are added to the container. You may log waste using any notation or symbols you wish. Additional log sheets can be used as needed. Remember to complete a summary sheet prior to pickup.

## **CONTAINER LOG SHEET:**

**Table D-1-1**  
**MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE**  
**TOXICITY CHARACTERISTIC**

EPA HW No. <sup>1</sup>	Contaminant	CAS No. <sup>2</sup>	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	<sup>4</sup> 200.0
D024	m-Cresol	108-39-4	<sup>4</sup> 200.0
D025	p-Cresol	106-44-5	<sup>4</sup> 200.0
D026	Cresol		<sup>4</sup> 200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	<sup>3</sup> 0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	<sup>3</sup> 0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	<sup>3</sup> 5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

<sup>1</sup>Hazardous waste number.

<sup>2</sup>Chemical abstracts service number.

<sup>3</sup>Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

<sup>4</sup>If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

**Table D-1-2**  
**HAZARDOUS WASTES FROM NON-SPECIFIC SOURCES**

EPA hazardous waste No.	Hazardous waste
F001 .....	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures
F002 .....	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003 .....	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004 .....	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005 .....	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F027 .....	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. <sup>1</sup> (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component).

<sup>1</sup> Compounds derived from chlorophenols include tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; and tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U394.....	30558-43-1	A2213
U001.....	75-07-0	Acetaldehyde (I)
U034.....	75-87-6	Acetaldehyde, trichloro-
U187.....	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005.....	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240.....	194-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112.....	141-78-6	Acetic acid ethyl ester (I)
U144.....	301-04-2	Acetic acid, lead(2+) salt
U214.....	563-68-8	Acetic acid, thallium(1+) salt
see F027 .....	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002.....	67-64-1	Acetone (I)
U003.....	75-05-8	Acetonitrile (I,T)
U004.....	98-86-2	Acetophenone
U005.....	53-96-3	2-Acetylaminofluorene
U006.....	75-36-5	Acetyl chloride (C,R,T)
U007.....	79-06-1	Acrylamide
U008.....	79-10-7	Acrylic acid (I)
U009.....	107-13-1	Acrylonitrile
U011.....	61-82-5	Amitrole
U012.....	62-53-3	Aniline (I,T)
U136.....	75-60-5	Arsinic acid, dimethyl-
U014.....	492-80-8	Auramine
U015.....	115-02-6	Azaserine
U365.....	2212-67-1	H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester.
U010.....	50-07-7	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,8balpha)]-
U280.....	101-27-9	Barban.
U278.....	22781-23-3	Bendiocarb.
U364.....	22961-82-6	Bendiocarb phenol.
U271.....	17804-35-2	Benomyl.
U157.....	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016.....	225-51-4	Benz[c]acridine
U017.....	98-87-3	Benzal chloride
U192.....	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018.....	56-55-3	Benz[a]anthracene
U094.....	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012.....	62-53-3	Benzenamine (I,T)
U014.....	492-80-8	Benzenamine, 4,4'-carbonimidoylbis [N,N-dimethyl-
U049.....	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U093.....	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328.....	95-53-4	Benzenamine, 2-methyl-
U353.....	106-49-0	Benzenamine, 4-methyl-
U158.....	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222.....	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181.....	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019.....	71-43-2	Benzene (I,T)
U038.....	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-al- pha-hydroxy-, ethyl ester
U030.....	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035.....	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037.....	108-90-7	Benzene, chloro-
U221.....	25376-45-8	Benzenediamine, ar-methyl-
U028.....	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069.....	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088.....	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102.....	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107.....	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070.....	95-50-1	Benzene, 1,2-dichloro-
U071.....	541-73-1	Benzene, 1,3-dichloro-
U072.....	106-46-7	Benzene, 1,4-dichloro-
U060.....	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis [4-chloro-
U017.....	98-87-3	Benzene, (dichloromethyl)-
U223.....	26471-62-5	...Benzene, 1,3-diisocyanatomethyl-(R,T)
U239.....	1330-20-7	Benzene, dimethyl-(I,T)
U201.....	108-46-3	1,3-Benzenediol
U127.....	118-74-1	Benzene, hexachloro-
U056.....	110-82-7	Benzene, hexahydro-(I)
U220.....	108-88-3	Benzene, methyl-
U105.....	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106.....	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055.....	98-82-8	Benzene, (1-methylethyl)-(I)
U169.....	98-95-3	Benzene, nitro-
U183.....	608-93-5	Benzene, pentachloro-
U185.....	82-68-8	Benzene, pentachloronitro-
U020.....	98-09-9	Benzenesulfonic acid chloride (C,R)
U020.....	98-09-9	Benzenesulfonyl chloride (C,R)
U207.....	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U06.....	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis [4-chloro-
U247.....	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis [4- methoxy-

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U023.....98-07-7		Benzene, (trichloromethyl)-
U234.....99-35-4		Benzene, 1,3,5-trinitro-
U021.....92-87-5		Benzidine
U202.....181-07-2		1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
U364.....22961-82-6		1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U278.....22781-23-3		1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.
U203.....94-59-7		1,3-Benzodioxole, 5-(2-propenyl)-
U141.....120-58-1		1,3-Benzodioxole, 5-(1-propenyl)-
U090.....94-58-6		1,3-Benzodioxole, 5-propyl-
U367.....1563-38-8		7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U064.....189-55-9		Benzo[rst]pentaphene
U248.....181-81-2		2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U022.....50-32-8		Benzo[a]pyrene
U197.....106-51-4		p-Benzoquinone
U023.....98-07-7		Benzotrichloride (C,R,T)
U085.....1464-53-5		2,2'-Bioxirane
U021.....92-87-5		[1,1'-Biphenyl]-4,4'-diamine
U073.....91-94-1		[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091.....119-90-4		[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095.....119-93-7		[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U401.....97-74-5		Bis(dimethylthiocarbamoyl) sulfide.
U400.....120-54-7		Bis(pentamethylene)thiuram tetrasulfide.
U225.....75-25-2		Bromoform
U030.....101-55-3		4-Bromophenyl phenyl ether
U128.....87-68-3		1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172.....924-16-3		1-Butanamine, N-butyl-N-nitroso-
U031.....71-36-3		1-Butanol (I)
U159.....78-93-3		2-Butanone (I,T)
U160.....1338-23-4		2-Butanone, peroxide (R,T)
U053.....4170-30-3		2-Butenal
U074.....764-41-0		2-Butene, 1,4-dichloro-(I,T)
U143.....303-34-4		2-Butenoic acid, 2-methyl-, 7-[ [2,3-dihydroxy-...2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-...2,3,5,7 a-tetrahydro-1H-pyrrolizin-1-yl ester,...[1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U031.....71-36-3		n-Butyl alcohol (I)
U392.....2008-41-5		Butylate.
U136.....75-60-5		Cacodylic acid
U032.....13765-19-0		Calcium chromate

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U372.....	10605-21-7	...Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.
U271.....	17804-35-2	...Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, .....methyl ester.
U375.....	55406-53-6	...Carbamic acid, butyl-, 3-iodo-2-propynyl ester.
U280.....	101-27-9	...Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.
U238.....	51-79-6	...Carbamic acid, ethyl ester
U178.....	615-53-2	...Carbamic acid, methylnitroso-, ethyl ester
U373.....	122-42-9	...Carbamic acid, phenyl-, 1-methylethyl ester.
U409.....	23564-05-8	...Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-,dimethyl ester.
U097.....	79-44-7	...Carbamic chloride, dimethyl-
U379.....	136-30-1	...Carbamodithioic acid, dibutyl, sodium salt.
U277.....	95-06-7	...Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester.
U381.....	148-18-5	...Carbamodithioic acid, diethyl-, sodium salt.
U383.....	128-03-0	...Carbamodithioic acid, dimethyl, potassium salt.
U382.....	128-04-1	...Carbamodithioic acid, dimethyl-, sodium salt.
U376.....	144-34-3	...Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid.
U114.....	1111-54-6	...Carbamodithioic acid, 1,2-ethanediylbis-,...salts & esters
U378.....	51026-28-9	...Carbamodithioic acid, (hydroxymethyl)methyl-, mono- potassium salt.
U377.....	137-41-7	...Carbamodithioic acid, methyl,-monopotassium salt.
U384.....	137-42-8	...Carbamodithioic acid, methyl-, monosodium salt.
U062.....	2303-16-4	...Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U389.....	2303-17-5	...Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U392.....	2008-41-5	...Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester.
U391.....	1114-71-2	...Carbamothioic acid, butylethyl-, S-propyl ester.
U386.....	1134-23-2	...Carbamothioic acid, cyclohexylethyl-, S-ethyl ester.
U390.....	759-94-4	...Carbamothioic acid, dipropyl-, S-ethyl ester.
U387.....	52888-80-9	...Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U385.....	1929-77-7	...Carbamothioic acid, dipropyl-, S-propyl ester.
U279.....	63-25-2	...Carbaryl.
U372.....	10605-21-7	...Carbendazim.
U367.....	1563-38-8	...Carbofuran phenol.
U215.....	6533-73-9	...Carbonic acid, dithallium(1+) salt
U033.....	353-50-4	...Carbonic difluoride
U156.....	79-22-1	...Carbonochloridic acid, methyl ester (I,T)
U033.....	353-50-4	...Carbon oxyfluoride (R,T)

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U211.....	56-23-5	Carbon tetrachloride
U034.....	75-87-6	Chloral
U035.....	305-03-3	Chlorambucil
U036.....	57-74-9	Chlordane, alpha & gamma isomers
U026.....	494-03-1	Chlornaphazin
U037.....	108-90-7	Chlorobenzene
U038.....	510-15-6	Chlorobenzilate
U039.....	59-50-7	p-Chloro-m-cresol
U042.....	110-75-8	2-Chloroethyl vinyl ether
U044.....	67-66-3	Chloroform
U046.....	107-30-2	Chloromethyl methyl ether
U047.....	91-58-7	beta-Choronaphthalene
U048.....	95-57-8	o-Chlorophenol
U049.....	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U393.....	137-29-1	Copper, bis(dimethylcarbamodithioato-S,S')-,
U393.....	137-29-1	Copper dimethyldithiocarbamate.
U032.....	13765-19-0	Chromic acid H <sub>2</sub> CrO <sub>4</sub> , calcium salt
U050.....	218-01-9	Chrysene
U051.....		Creosote
U052.....	1319-77-3	Cresol (Cresylic acid)
U053.....	4170-30-3	Crotonaldehyde
U055.....	98-82-8	Cumene (I)
U246.....	506-68-3	Cyanogen bromide (CN)Br
U386.....	1134-23-2	Cycloate.
U386.....	1134-23-2	Cycloate.
U197.....	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056.....	110-82-7	Cyclohexane (I)
U129.....	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-,alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057.....	108-94-1	Cyclohexanon (I)
U130.....	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058.....	50-18-0	Cyclophosphamide
U240.....	194-75-7	2,4-D, salts & esters
U059.....	20830-81-3	Daunomycin
U060.....	72-54-8	DDD
U061.....	50-29-3	DDT
U366.....	533-74-4	Dazomet.
U062.....	2303-16-4	Diallate
U063.....	53-70-3	Dibenz[a,h]anthracene
U064.....	189-55-9	Dibenzo[a,i]pyrene

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U066.....	96-12-8	1,2-Dibromo-3-chloropropane
U069.....	84-74-2	Dibutyl phthalate
U070.....	95-50-1	o-Dichlorobenzene
U071.....	541-73-1	m-Dichlorobenzene
U072.....	106-46-7	p-Dichlorobenzene
U073.....	91-94-1	3,3'-Dichlorobenzidine
U074.....	764-41-0	1,4-Dichloro-2-butene (I,T)
U075.....	75-71-8	Dichlorodifluoromethane
U078.....	75-35-4	1,1-Dichloroethylene
U079.....	156-60-5	1,2-Dichloroethylene
U025.....	111-44-4	Dichloroethyl ether
U027.....	108-60-1	Dichloroisopropyl ether
U024.....	111-91-1	Dichloromethoxy ethane
U081.....	120-83-2	2,4-Dichlorophenol
U082.....	87-65-0	2,6-Dichlorophenol
U084.....	542-75-6	1,3-Dichloropropene
U085.....	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U395.....	5952-26-1	Diethylene glycol, dicarbamate.
U108.....	123-91-1	1,4-Diethyleneoxide
U028.....	117-81-7	Diethylhexyl phthalate
U086.....	1615-80-1	N,N'-Diethylhydrazine
U087.....	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088.....	84-66-2	Diethyl phthalate
U089.....	56-53-1	Diethylstilbestrol
U090.....	94-58-6	Dihydrosafrole
U091.....	119-90-4	3,3'-Dimethoxybenzidine
U092.....	124-40-3	Dimethylamine (I)
U093.....	60-11-7	p-Dimethylaminoazobenzene
U094.....	57-97-6	7,12-Dimethylbenz[a]anthracene
U095.....	119-93-7	3,3'-Dimethylbenzidine
U096.....	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097.....	79-44-7	Dimethylcarbamoyl chloride
U098.....	57-14-7	1,1-Dimethylhydrazine
U099.....	540-73-8	1,2-Dimethylhydrazine
U101.....	105-67-9	2,4-Dimethylphenol
U102.....	131-11-3	Dimethyl phthalate
U103.....	77-78-1	Dimethyl sulfate
U105.....	121-14-2	2,4-Dinitrotoluene
U106.....	606-20-2	2,6-Dinitrotoluene
U107.....	117-84-0	Di-n-octyl phthalate

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U108.....	123-91-1	.....1,4-Dioxane
U109.....	122-66-7	.....1,2-Diphenylhydrazine
U110.....	142-84-7	.....Dipropylamine (I)
U111.....	621-64-7	.....Di-n-propylnitrosamine
U403.....	97-77-8	.....Disulfiram.
U041.....	106-89-8	.....Epichlorohydrin
U390.....	759-94-4	.....EPTC.
U001.....	75-07-0	.....Ethanal (I)
U174.....	55-18-5	.....Ethanamine, N-ethyl-N-nitroso-
U404.....	121-44-8	.....Ethanamine, N,N-diethyl
U155 .....	91-80-5	.....1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U067.....	106-93-4	.....Ethane, 1,2-dibromo-
U076 .....	75-34-3	.....Ethane, 1,1-dichloro-
U077.....	107-06-2	.....Ethane, 1,2-dichloro-
U131 .....	67-72-1	.....Ethane, hexachloro-
U024.....	111-91-1	.....Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U117.....	60-29-7	.....Ethane, 1,1'-oxybis-(I)
U025.....	111-44-4	.....Ethane, 1,1'-oxybis[2-chloro-
U184.....	76-01-7	.....Ethane, pentachloro-
U208.....	630-20-6	.....Ethane, 1,1,1,2-tetrachloro-
U209.....	79-34-5	.....Ethane, 1,1,2,2-tetrachloro-
U218.....	62-55-5	.....Ethanethioamide
U410.....	59669-26-0	.....Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U394.....	30558-43-1	.....Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-,methyl ester.
U226.....	71-55-6	.....Ethane, 1,1,1-trichloro-
U227.....	79-00-5	.....Ethane, 1,1,2-trichloro-
U359.....	110-80-5	.....Ethanol, 2-ethoxy-
U173.....	1116-54-7	.....Ethanol, 2,2'-(nitrosoimino)bis-
U395.....	5952-26-1	.....Ethanol, 2,2'-oxybis-, dicarbamate.
U004.....	98-86-2	.....Ethanone, 1-phenyl-
U043.....	75-01-4	.....Ethene, chloro-
U042.....	110-75-8	.....Ethene, (2-chloroethoxy)-
U078.....	75-35-4	.....Ethene, 1,1-dichloro-
U079.....	156-60-5	.....Ethene, 1,2-dichloro-, (E)-
U210.....	127-18-4	.....Ethene, tetrachloro-
U228.....	79-01-6	.....Ethene, trichloro-
U112.....	141-78-6	.....Ethyl acetate (I)

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U113.....	140-88-5	Ethyl acrylate (I)
U238.....	51-79-6	Ethyl carbamate (urethane)
U117.....	60-29-7	Ethyl ether (I)
U114.....	1111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067.....	106-93-4	Ethylene dibromide
U077.....	107-06-2	Ethylene dichloride
U359.....	110-80-5	Ethylene glycol monoethyl ether
U115.....	75-21-8	Ethylene oxide (I,T)
U116.....	96-45-7	Ethylenethiourea
U076.....	75-34-3	Ethylidene dichloride
U118.....	97-63-2	Ethyl methacrylate
U119.....	62-50-0	Ethyl methanesulfonate
U407.....	14324-55-1	Ethyl Ziram.
U396.....	14484-64-1	Ferbam.
U120.....	206-44-0	Fluoranthene
U122.....	50-00-0	Formaldehyde
U123.....	64-18-6	Formic acid (C,T)
U124.....	110-00-9	Furan (I)
U125.....	98-01-1	2-Furancarboxaldehyde (I)
U147.....	108-31-6	2,5-Furandione
U213.....	109-99-9	Furan, tetrahydro-(I)
U125.....	98-01-1	Furfural (I)
U124.....	110-00-9	Furfuran (I)
U206.....	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206.....	18883-66-4	D-Glucose, 2-deoxy-2-[ [(methylnitrosoamino)...carbon- yl]amino]-
U126.....	765-34-4	Glycidylaldehyde
U163.....	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127.....	118-74-1	Hexachlorobenzene
U128.....	87-68-3	Hexachlorobutadiene
U130.....	77-47-4	Hexachlorocyclopentadiene
U131.....	67-72-1	Hexachloroethane
U132.....	70-30-4	Hexachlorophene
U243.....	1888-71-7	Hexachloropropene
U133.....	302-01-2	Hydrazine (R,T)
U086.....	1615-80-1	Hydrazine, 1,2-diethyl-
U098.....	57-14-7	Hydrazine, 1,1-dimethyl-
U099.....	540-73-8	Hydrazine, 1,2-dimethyl-
U109.....	122-66-7	Hydrazine, 1,2-diphenyl-
U134.....	7664-39-3	Hydrofluoric acid (C,T)
U134.....	7664-39-3	Hydrogen fluoride (C,T)

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U135.....	7783-06-4	Hydrogen sulfide
U135.....	7783-06-4	Hydrogen sulfide H <sub>2</sub> S
U096.....	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U116.....	96-45-7	2-Imidazolidinethione
U137.....	193-39-5	Indeno[1,2,3-cd]pyrene
U375.....	55406-53-6	3-Iodo-2-propynyl n-butylcarbamate.
U396.....	14484-64-1	Iron, tris(dimethylcarbamodithioato-S,S')-,
U190.....	85-44-9	1,3-Isobenzofurandione
U140.....	78-83-1	Isobutyl alcohol (I,T)
U141.....	120-58-1	Isosafrole
U142.....	143-50-0	Kepone
U143.....	303-34-4	Lasiocarpine
U144.....	301-04-2	Lead acetate
U146.....	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145.....	7446-27-7	Lead phosphate
U146.....	1335-32-6	Lead subacetate
U129.....	58-89-9	Lindane
U163.....	70-25-7	MNNG
U147.....	108-31-6	Maleic anhydride
U148.....	123-33-1	Maleic hydrazide
U149.....	109-77-3	Malononitrile
U150.....	148-82-3	Melphalan
U151.....	7439-97-6	Mercury
U384.....	137-42-8	Metam Sodium.
U152.....	126-98-7	Methacrylonitrile (I, T)
U092.....	124-40-3	Methanamine, N-methyl-(I)
U029.....	74-83-9	Methane, bromo-
U045.....	74-87-3	Methane, chloro-(I, T)
U046.....	107-30-2	Methane, chloromethoxy-
U068.....	74-95-3	Methane, dibromo-
U080.....	75-09-2	Methane, dichloro-
U075.....	75-71-8	Methane, dichlorodifluoro-
U138.....	74-88-4	Methane, iodo-
U119.....	62-50-0	Methanesulfonic acid, ethyl ester
U211.....	56-23-5	Methane, tetrachloro-
U153.....	74-93-1	Methanethiol (I, T)
U225.....	75-25-2	Methane, tribromo-
U044.....	67-66-3	Methane, trichloro-
U121.....	75-69-4	Methane, trichlorofluoro-
U036.....	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
		2,3,3a,4,7,7a-hexahydro-
U154.....67-56-1 .....		Methanol (I)
U155.....91-80-5 .....		Methapyrilene
U142.....143-50-0 .....		1,3,4-Metheno-2H-cyclobuta [cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247.....72-43-5 .....		Methoxychlor
U154.....67-56-1 .....		Methyl alcohol (I)
U029.....74-83-9 .....		Methyl bromide
U186.....504-60-9 .....		1-Methylbutadiene (I)
U045.....74-87-3 .....		Methyl chloride (I,T)
U156.....79-22-1 .....		Methyl chlorocarbonate (I,T)
U226 .....	71-55-6	Methyl chloroform
U157.....56-49-5 .....		3-Methylcholanthrene
U158.....101-14-4 .....		4,4'-Methylenebis(2-chloroaniline)
U068.....74-95-3 .....		Methylene bromide
U080.....75-09-2 .....		Methylene chloride
U159.....78-93-3 .....		Methyl ethyl ketone (MEK) (I,T)
U160.....1338-23-4 .....		Methyl ethyl ketone peroxide (R,T)
U138.....74-88-4 .....		Methyl iodide
U161.....108-10-1 .....		Methyl isobutyl ketone (I)
U162.....80-62-6 .....		Methyl methacrylate (I,T)
U161.....108-10-1 .....		4-Methyl-2-pentanone (I)
U164.....56-04-2 .....		Methylthiouracil
U010.....50-07-7 .....		Mitomycin C
U365.....2212-67-1 .....		Molinate.
U059.....20830-81-3 .....		5,12-Naphthacenedione, 8-acetyl-10- [(3-amino-2,3,6-tride- oxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydr o-6 ,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167.....134-32-7 .....		1-Naphthalenamine
U168.....91-59-8 .....		2-Naphthalenamine
U026.....494-03-1 .....		Naphthalenamine, N,N'-bis(2-chloroethyl)-
U165.....91-20-3 .....		Naphthalene
U047.....91-58-7 .....		Naphthalene, 2-chloro-
U166.....130-15-4 .....		1,4-Naphthalenedione
U236.....72-57-1 .....		2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-...dimethyl [1,1'-biphenyl]-4,4'-diyl)bis(azo)bis [5-amino-4-hydroxy]-, tetrasodium salt
U279.....63-25-2 .....		1-Naphthalenol, methylcarbamate.
U166.....130-15-4 .....		1,4-Naphthoquinone
U167.....134-32-7 .....		alpha-Naphthylamine

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U168.....	91-59-8	beta-Naphthylamine
U217.....	10102-45-1	Nitric acid, thallium(1+) salt
U169.....	98-95-3	Nitrobenzene (I,T)
U170.....	100-02-7	p-Nitrophenol
U171.....	79-46-9	2-Nitropropane (I,T)
U172 .....	924-16-3	N-Nitrosodi-n-butylamine
U173 .....	1116-54-7	N-Nitrosodiethanolamine
U174.....	55-18-5	N-Nitrosodiethylamine
U176.....	759-73-9	N-Nitroso-N-ethylurea
U177.....	684-93-5	N-Nitroso-N-methylurea
U178.....	615-53-2	N-Nitroso-N-methylurethane
U179.....	100-75-4	N-Nitrosopiperidine
U180.....	930-55-2	N-Nitrosopyrrolidine
U181.....	99-55-8	5-Nitro-o-toluidine
U193.....	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058.....	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine,...N,N-bis(2- chloroethyl) tetrahydro-, 2-oxide
U115.....	75-21-8	Oxirane (I,T)
U126 .....	765-34-4	Oxiranecarboxyaldehyde
U041.....	106-89-8	Oxirane, (chloromethyl)-
U182.....	123-63-7	Paraldehyde
U391.....	1114-71-2	Pebulate.
U183.....	608-93-5	Pentachlorobenzene
U184.....	76-01-7	Pentachloroethane
U185.....	82-68-8	Pentachloronitrobenzene (PCNB)
See F027.....	87-86-5	Pentachlorophenol
U161.....	108-10-1	Pentanol, 4-methyl-
U186.....	504-60-9	1,3-Pentadiene (I)
U187.....	62-44-2	Phenacetin
U188.....	108-95-2	Phenol
U048.....	95-57-8	Phenol, 2-chloro-
U039.....	59-50-7	Phenol, 4-chloro-3-methyl-
U081.....	120-83-2	Phenol, 2,4-dichloro-
U082.....	87-65-0	Phenol, 2,6-dichloro-
U089.....	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101.....	105-67-9	Phenol, 2,4-dimethyl-
U052.....	1319-77-3	Phenol, methyl-
U132 .....	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U411.....	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170.....	100-02-7	Phenol, 4-nitro-

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
See F027.....	87-86-5	Phenol, pentachloro-
See F027.....	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027.....	95-95-4	Phenol, 2,4,5-trichloro-
See F027.....	88-06-2	Phenol, 2,4,6-trichloro-
U150.....	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145.....	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U087.....	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189.....	1314-80-3	Phosphorus sulfide (R)
U190.....	85-44-9	Phthalic anhydride
U191.....	109-06-8	2-Picoline
U179.....	100-75-4	Piperidine, 1-nitroso-
U400.....	120-54-7	Piperidine, 1,1'-(tetrathiodicarbonothioyl)-bis-
U383.....	128-03-0	Potassium dimethyldithiocarbamate.
U378.....	51026-28-9	Potassium n-hydroxymethyl-n-methyldi-thiocarbamate.
U377.....	137-41-7	Potassium n-methyldithiocarbamate.
U192.....	23950-58-5	Pronamide
U194.....	107-10-8	1-Propanamine (I,T)
U111.....	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110.....	142-84-7	1-Propanamine, N-propyl-(I)
U066.....	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083.....	78-87-5	Propane, 1,2-dichloro-
U149.....	109-77-3	Propanedinitrile
U171.....	79-46-9	Propane, 2-nitro-(I,T)
U027.....	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U193.....	1120-71-4	1,3-Propane sultone
See F027.....	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235.....	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140.....	78-83-1	1-Propanol, 2-methyl-(I,T)
U002.....	67-64-1	2-Propanone (I)
U007.....	79-06-1	2-Propenamide
U084.....	542-75-6	1-Propene, 1,3-dichloro-
U243.....	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009.....	107-13-1	2-Propenenitrile
U152.....	126-98-7	2-Propenenitrile, 2-methyl-(I,T)
U008.....	79-10-7	2-Propenoic acid (I)
U113.....	140-88-5	2-Propenoic acid, ethyl ester (I)
U118.....	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162.....	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373.....	122-42-9	Propham.
U411.....	114-26-1	Propoxur.

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U194.....	107-10-8	n-Propylamine (I,T)
U083.....	78-87-5	Propylene dichloride
U387.....	52888-80-9	Prosulfocarb.
U148.....	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196.....	110-86-1	Pyridine
U191.....	109-06-8	Pyridine, 2-methyl-
U237.....	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-...chl oroethyl)amino]-
U164.....	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180.....	930-55-2	Pyrrolidine, 1-nitroso-
U200.....	50-55-5	Reserpine
U201.....	108-46-3	Resorcinol
U202.....	181-07-2	Saccharin, & salts
U203.....	94-59-7	Safrole
U20.....	7783-00-8	Selenious acid
U204.....	7783-00-8	Selenium dioxide
U205.....	7488-56-4	Selenium sulfide
U205.....	7488-56-4	Selenium sulfide SeS2 (R,T)
U376.....	144-34-3	Selenium, tetrakis(dimethyldithiocarbamate).
U015.....	115-02-6	L-Serine, diazoacetate (ester)
See F027.....	93-72-1	Silvex (2,4,5-TP)
U379.....	136-30-1	Sodium dibutyldithiocarbamate.
U381.....	148-18-5	Sodium diethyldithiocarbamate.
U382.....	128-04-1	Sodium dimethyldithiocarbamate.
U206.....	18883-66-4	Streptozotocin
U277.....	95-06-7	Sulfallate.
U103.....	77-78-1	Sulfuric acid, dimethyl ester
U189.....	1314-80-3	Sulfur phosphide (R)
See F027.....	93-76-5	2,4,5-T
U402 .....	1634-02-2	Tetrabutylthiuram disulfide.
U207.....	95-94-3	1,2,4,5-Tetrachlorobenzene
U208.....	630-20-6	1,1,1,2-Tetrachloroethane
U209.....	79-34-5	1,1,2,2-Tetrachloroethane
U210.....	127-18-4	Tetrachloroethylene
See F027.....	58-90-2	2,3,4,6-Tetrachlorophenol
U213.....	109-99-9	Tetrahydrofuran (I)
U401.....	97-74-5	Tetramethylthiuram monosulfide.
U214.....	563-68-8	Thallium(I) acetate
U215.....	6533-73-9	Thallium(I) carbonate
U216 .....	7791-12-0	Thallium(I) chloride
U216 .....	7791-12-0	Thallium chloride TlCl

**Table D-1-3**  
**U-Listed HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
U217.....	10102-45-1	...Thallium(I) nitrate
U366.....	533-74-4	....2H-1,3,5-Thiadiazine-2-thione, tetrahydro-3,5-dimethyl-
U218.....	62-55-5	....Thioacetamide
U410.....	59669-26-0	...Thiodicarb.
U153.....	74-93-1	....Thiomethanol (I,T)
U402.....	1634-02-2	....Thioperoxydicarbonic diamide, tetrabutyl.
U403.....	97-77-8	....Thioperoxydicarbonic diamide, tetraethyl.
U244.....	137-26-8	....Thioperoxydicarbonic diamide [(H2N)C(S)]2S2, tetramethyl-
U409.....	23564-05-8	...Thiophanate-methyl.
U219.....	62-56-6	....Thiourea
U244.....	137-26-8	....Thiram
U220.....	108-88-3	....Toluene
U221.....	25376-45-8	...Toluenediamine
U223.....	26471-62-5	...Toluene diisocyanate (R,T)
U328.....	95-53-4	....o-Toluidine
U353.....	106-49-0	....p-Toluidine
U222.....	636-21-5	....o-Toluidine hydrochloride
U389.....	2303-17-5	....Triallate.
U011.....	61-82-5	....1H-1,2,4-Triazol-3-amine
U227.....	79-00-5	....1,1,2-Trichloroethane
U228.....	79-01-6	....Trichloroethylene
U121.....	75-69-4	....Trichloromonofluoromethane
See F027.....	95-95-4	....2,4,5-Trichlorophenol
See F027.....	88-06-2	....2,4,6-Trichlorophenol
U404.....	121-44-8	....Triethylamine.
U234.....	99-35-4	....1,3,5-Trinitrobenzene (R,T)
U182.....	123-63-7	....1,3,5-Trioxane, 2,4,6-trimethyl-
U235.....	126-72-7	....Tris(2,3-dibromopropyl) phosphate
U236.....	72-57-1	....Trypan blue
U237.....	66-75-1	....Uracil mustard
U176.....	759-73-9	....Urea, N-ethyl-N-nitroso-
U177.....	684-93-5	....Urea, N-methyl-N-nitroso-
U385.....	1929-77-7	....Vernolate.
U043.....	75-01-4	....Vinyl chloride
U248.....	181-81-2	....Warfarin, & salts, when present at concentrations of 0.3% or less
U239.....	1330-20-7	....Xylene (I)
U200 .....	50-55-5	....Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[ (3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U407 .....	14324-55-1	...Zinc, bis(diethylcarbamodithioato-S,S')-

Table D-1-3  
**U-Listed HAZARDOUS WASTES**

<b>Haz-Ardous Waste No.</b>	<b>Chemical abstracts No.</b>	<b>Substance</b>
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U249.....1314-84-7.....Zinc phosphide Zn<sub>3</sub>P<sub>2</sub>, when present at concentrations of 10% or less

1 CAS Number given for parent compound only.

**Table D-1-4**  
**ACUTELY HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
P023.....	107-20-0.....	Acetaldehyde, chloro-
P002.....	591-08-2.....	Acetamide, N-(aminothioxomethyl)-
P057.....	640-19-7.....	Acetamide, 2-fluoro-
P058.....	62-74-8.....	Acetic acid, fluoro-, sodium salt
P002.....	591-08-2.....	1-Acetyl-2-thiourea
P003.....	107-02-8.....	Acrolein
P070.....	116-06-3.....	Aldicarb
P203.....	1646-88-4.....	Aldicarb sulfone.
P004.....	309-00-2.....	Aldrin
P005.....	107-18-6.....	Allyl alcohol
P006.....	20859-73-8.....	Aluminum phosphide (R,T)
P007.....	2763-96-4.....	5-(Aminomethyl)-3-isoxazolol
P008.....	504-24-5.....	4-Aminopyridine
P009.....	131-74-8.....	Ammonium picrate (R)
P119.....	7803-55-6.....	Ammonium vanadate
P099.....	506-61-6.....	Argentate(1-), bis(cyano-C)-, potassium
P010.....	7778-39-4.....	Arsenic acid H <sub>3</sub> AsO <sub>4</sub>
P012.....	1327-53-3.....	Arsenic oxide As <sub>2</sub> O <sub>3</sub>
P011.....	1303-28-2.....	Arsenic oxide As <sub>2</sub> O <sub>5</sub>
P011.....	1303-28-2.....	Arsenic pentoxide
P012.....	1327-53-3.....	Arsenic trioxide
P038.....	692-42-2.....	Arsine, diethyl-
P036.....	696-28-6.....	Arsonous dichloride, phenyl-
P054.....	151-56-4.....	Aziridine
P067.....	75-55-8.....	Aziridine, 2-methyl-
P013.....	542-62-1.....	Barium cyanide
P024.....	106-47-8.....	Benzenamine, 4-chloro-
P077.....	100-01-6.....	Benzenamine, 4-nitro-
P028.....	100-44-7.....	Benzene, (chloromethyl)-
P042.....	51-43-4.....	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046.....	122-09-8.....	Benzeneethanamine, alpha,alpha-dimethyl-
P014.....	108-98-5.....	Benzenethiol
P127.....	1563-66-2.....	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P188.....	57-64-7.....	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)- 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol -5-ylmethylcarbamate ester (1:1).
P001.....	<sup>1</sup> 81-81-2.....	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028.....	100-44-7.....	Benzyl chloride
P015.....	7440-41-7.....	Beryllium powder
P017.....	598-31-2.....	Bromoacetone
P018.....	357-57-3.....	Brucine

## ACUTELY HAZARDOUS WASTES

**Haz-  
ardous      Chemical  
waste      abstracts**

**No.              No.              Substance**

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P045.....	39196-18-4 .....	2-Butanone, 3,3-dimethyl-1-(methylthio)-,O-[methylamino)carbonyl] oxime
P021.....	592-01-8 .....	Calcium cyanide
P021.....	592-01-8 .....	Calcium cyanide Ca(CN) <sub>2</sub>
P189.....	55285-14-8 .....	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester.
P191.....	644-64-4 .....	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H-pyrazol-3-yl ester.
P192.....	119-38-0 .....	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H- pyrazol-5-yl ester.
P190.....	1129-41-5 .....	Carbamic acid, methyl-, 3-methylphenyl ester.
P127.....	1563-66-2 .....	Carbofuran.
P022.....	75-15-0 .....	Carbon disulfide
P095.....	75-44-5 .....	Carbonic dichloride
P189.....	55285-14-8 .....	Carbosulfan.
P023.....	107-20-0 .....	Chloroacetaldehyde
P024.....	106-47-8 .....	p-Chloroaniline
P026.....	5344-82-1 .....	1-(o-Chlorophenyl)thiourea
P027.....	542-76-7 .....	3-Chloropropionitrile
P029.....	544-92-3 .....	Copper cyanide
P029.....	544-92-3 .....	Copper cyanide Cu(CN)
P202.....	64-00-6 .....	m-Cumetyl methylcarbamate.
P030.....		Cyanides (soluble cyanide salts), not otherwise specified
P031.....	460-19-5 .....	Cyanogen
P033.....	506-77-4 .....	Cyanogen chloride
P033.....	506-77-4 .....	Cyanogen chloride (CN)Cl
P034.....	131-89-5 .....	2-Cyclohexyl-4,6-dinitrophenol
P016.....	542-88-1 .....	Dichloromethyl ether
P036.....	696-28-6 .....	Dichlorophenylarsine
P037.....	60-57-1 .....	Dieldrin
P038.....	692-42-2 .....	Diethylarsine
P041.....	311-45-5 .....	Diethyl-p-nitrophenyl phosphate
P040.....	297-97-2 .....	O,O-Diethyl O-pyrazinyl phosphorothioate
P043.....	55-91-4 .....	Diisopropylfluorophosphate (DFP)
P004.....	309-00-2 .....	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a,-hexahydro-(1-alpha, 4alpha, 4abeta, 5alpha, 8alpha, 8abeta)-
P060.....	465-73-6 .....	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)-

**Table D-1-4, continued**  
**ACUTELY HAZARDOUS WASTES**

Haz- ardous waste	Chemical abstracts No.	Substance
P037 .....	60-57-1 .....	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexa-chloro-1a,2,2a,3,6,6a,7,7a -octahydro-, (1aalpha, 2beta, 2aalpha, 3beta, 6beta, 6aalpha, 7beta, 7aalpha)-
P051 .....	<sup>1</sup> 72-20-8 .....	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-, (1aalpha, 2beta, 2abeta, 3,6alpha, 6abeta, 7beta, 7aalpha)-, & metabolites
P044 .....	60-51-5 .....	Dimethoate
P191 .....	644-64-4 .....	Dimetilan.
P046 .....	122-09-8 .....	alpha,alpha-Dimethylphenethylamine
P047 .....	<sup>1</sup> 534-52-1 .....	4,6-Dinitro-o-cresol, & salts
P048 .....	51-28-5 .....	2,4-Dinitrophenol
P020 .....	88-85-7 .....	Dinoseb
P085 .....	152-16-9 .....	Diphosphoramide, octamethyl-
P111 .....	107-49-3 .....	Diphosphoric acid, tetraethyl ester
P039 .....	298-04-4 .....	Disulfoton
P049 .....	541-53-7 .....	Dithiobiuret
P185 .....	26419-73-8 .....	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- [(methylamino)-carbonyl]oxime.
P050 .....	115-29-7 .....	Endosulfan
P088 .....	145-73-3 .....	Endothall
P051 .....	72-20-8 .....	Endrin
P051 .....	72-20-8 .....	Endrin, & metabolites
P042 .....	51-43-4 .....	Epinephrine
P031 .....	460-19-5 .....	Ethanedinitrile
P194 .....	23135-22-0 .....	Ethanimidothioc acid,2-(dimethylamino)-N- [[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester.
P066 .....	16752-77-5 .....	Ethanimidothioic acid,...N-[[ (methylamino)carbonyl]oxy]- , methyl ester
P101 .....	107-12-0 .....	Ethyl cyanide
P054 .....	151-56-4 .....	Ethyleneimine
P097 .....	52-85-7 .....	Famphur
P056 .....	7782-41-4 .....	Fluorine
P057 .....	640-19-7 .....	Fluoroacetamide
P058 .....	62-74-8 .....	Fluoroacetic acid, sodium salt
P198 .....	23422-53-9 .....	Formetanate hydrochloride.
P197 .....	17702-57-7 .....	Formparanate.
P065 .....	628-86-4 .....	Fulminic acid, mercury(2+) salt (R,T)
P059 .....	76-44-8 .....	Heptachlor
P062 .....	757-58-4 .....	Hexaethyl tetraphosphate
P116 .....	79-19-6 .....	Hydrazinecarbothioamide

**Table D-1-4, continued  
ACUTELY HAZARDOUS WASTES**

<b>Haz- ardous waste</b>	<b>Chemical abstracts No.</b>	<b>Substance</b>
P068..... 60-34-4 .....		Hydrazine, methyl-
P063..... 74-90-8 .....		Hydrocyanic acid
P063..... 74-90-8 .....		Hydrogen cyanide
P096..... 7803-51-2 .....		Hydrogen phosphide
P060..... 465-73-6 .....		Isodrin
P192..... 119-38-0 .....		Isolan.
P202..... 64-00-6 .....		3-Isopropylphenyl N-methylcarbamate.
P007..... 2763-96-4 .....		3(2H)-Isoxazolone, 5-(aminomethyl)-
P196..... 15339-36-3 .....		Manganese, bis(dimethylcarbamodithioato-S,S')-,
P196..... 15339-36-3 .....		Manganese dimethyldithiocarbamate.
P092..... 62-38-4 .....		Mercury, (acetato-O)phenyl-
P065..... 628-86-4 .....		Mercury fulminate (R,T)
P082..... 62-75-9 .....		Methanamine, N-methyl-N-nitroso-
P064..... 624-83-9 .....		Methane, isocyanato-
P016..... 542-88-1 .....		Methane, oxybis[chloro-
P112..... 509-14-8 .....		Methane, tetranitro-(R)
P118..... 75-70-7 .....		Methanethiol, trichloro-
P198..... 23422-53-9 .....		Methanimidamide, N,N-dimethyl-N'-[3-[(methylamino)-car-
		bonyl]oxy] phenyl]-, monohydrochloride.
P197..... 17702-57-7 .....		Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[(methyl- amino)carbonyl]oxy]phenyl]
P050..... 115-29-7 .....		6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059..... 76-44-8 .....		4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-
P199..... 2032-65-7 .....		Methiocarb.
P066..... 16752-77-5 .....		Methomyl
P068..... 60-34-4 .....		Methyl hydrazine
P064..... 624-83-9 .....		Methyl isocyanate
P069..... 75-86-5 .....		2-Methyllactonitrile
P071..... 298-00-0 .....		Methyl parathion
P190..... 1129-41-5 .....		Metolcarb.
P128..... 315-18-4 .....		Mexacarbamate
P072..... 86-88-4 .....		alpha-Naphthylthiourea
P073..... 13463-39-3 .....		Nickel carbonyl
P073..... 13463-39-3 .....		Nickel carbonyl Ni(CO) <sub>4</sub> , (T-4)-
P074..... 557-19-7 .....		Nickel cyanide
P074..... 557-19-7 .....		Nickel cynaide Ni(CN) <sub>2</sub>
P075..... <sup>1</sup> 154-11-5 .....		Nicotine, & salts
P076..... 10102-43-9 .....		Nitric oxide

P077 ..... 100-01-6 ..... p-Nitroaniline

**Table D-1-4, continued  
ACUTELY HAZARDOUS WASTES**

Haz- ardous waste	Chemical abstracts No.	Substance
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO <sub>2</sub>
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO <sub>4</sub> , (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl.
P089	56-38-2	Parathion
M001		PCB (Polychlorinated biphenyl) (Above 500 ppm)
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	<sup>1</sup> 534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate .....(ester).
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate.
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl...S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl...S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)- 2-oxoethyl] ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid,...O-[4-[(dimethylamino) sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine.
P188	57-64-7	Physostigmine salicylate.
P110	78-00-2	Plumbane, tetraethyl-

P204..... 57-47-6 ..... Physostigmine.

**Table D-1-4, continued**  
**ACUTELY HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
P188.....	57-64-7 .....	Physostigmine salicylate.
M001 .....	.....	Polychlorinated biphenyls (PCB) (Above 500 ppm)
P098.....	151-50-8 .....	Potassium cyanide
P098.....	151-50-8 .....	Potassium cyanide K(CN)
P099.....	506-61-6 .....	Potassium silver cyanide
P201.....	2631-37-0 .....	Promecarb
P203.....	1646-88-4 .....	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime.
P070.....	116-06-3 .....	Propanal, 2-methyl-2-(methylthio)-, O- [(methylamino)carbonyl]oxime
P101.....	107-12-0 .....	Propanenitrile
P027.....	542-76-7 .....	Propanenitrile, 3-chloro-
P069.....	75-86-5 .....	Propanenitrile, 2-hydroxy-2-methyl-
P081.....	55-63-0 .....	1,2,3-Propanetriol, trinitrate (R)
P017.....	598-31-2 .....	2-Propanone, 1-bromo-
P102.....	107-19-7 .....	Propargyl alcohol
P003.....	107-02-8 .....	2-Propenal
P005.....	107-18-6 .....	2-Propen-1-ol
P067.....	75-55-8 .....	1,2-Propylenimine
P102.....	107-19-7 .....	2-Propyn-1-ol
P008.....	504-24-5 .....	4-Pyridinamine
P075.....	<sup>1</sup> 54-11-5 .....	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
P204.....	57-47-6 .....	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro- 1,3a,8-trimethyl-, methylcarbamate(ester), (3aS-cis)-.
P114.....	12039-52-0 .....	Selenious acid, dithallium(1+) salt
P103.....	630-10-4 .....	Selenourea
P104.....	506-64-9 .....	Silver cyanide
P104.....	506-64-9 .....	Silver cyanide Ag(CN)
P105.....	26628-22-8 .....	Sodium azide
P106.....	143-33-9 .....	Sodium cyanide
P106.....	143-33-9 .....	Sodium cyanide Na(CN)
P108.....	<sup>1</sup> 57-24-9 .....	Strychnidin-10-one, & salts
P018.....	357-57-3 .....	Strychnidin-10-one, 2,3-dimethoxy-
P108.....	<sup>1</sup> 57-24-9 .....	Strychnine, & salts
P115.....	7446-18-6 .....	Sulfuric acid, dithallium(1+) salt
P109.....	3689-24-5 .....	Tetraethylthiopyrophosphate
P110.....	78-00-2 .....	Tetraethyl lead
P111.....	107-49-3 .....	Tetraethyl pyrophosphate
P112.....	509-14-8 .....	Tetranitromethane (R)
P062.....	757-58-4 .....	Tetraphosphoric acid, hexaethyl ester
P113.....	1314-32-5 .....	Thallic oxide

P113..... 1314-32-5 . .... Thallium oxide  $Tl_2O_3$

**Table D-1-4, continued  
ACUTELY HAZARDOUS WASTES**

Haz- ardous waste No.	Chemical abstracts No.	Substance
P114.....	12039-52-0	Thallium(I) selenite
P115.....	7446-18-6	Thallium(I) sulfate
P109.....	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045.....	39196-18-4	Thiofanox
P049.....	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014.....	108-98-5	Thiophenol
P116.....	79-19-6	Thiosemicarbazide
P026.....	5344-82-1	Thiourea, (2-chlorophenyl)-
P072.....	86-88-4	Thiourea, 1-naphthalenyl-
P093.....	103-85-5	Thiourea, phenyl-
P185.....	26419-73-8	Tirpate.
P123.....	8001-35-2	Toxaphene
P118.....	75-70-7	Trichloromethanethiol
P119.....	7803-55-6	Vanadic acid, ammonium salt
P120.....	1314-62-1	Vanadium oxide $V_2O_5$
P120.....	1314-62-1	Vanadium pentoxide
P084.....	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001.....	<sup>1</sup> 81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205.....	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P121.....	557-21-1	Zinc cyanide
P121.....	557-21-1	Zinc cyanide $Zn(CN)_2$
P122.....	1314-84-7	Zinc phosphide $Zn_3P_2$ , when present at concentrations greater than 10% (R,T)
P205.....	137-30-4	Ziram.

<sup>1</sup>CAS Number given for parent compound only