

Texas A&M University Kingsville



Hazardous Waste Management Program



TEXAS A&M
UNIVERSITY
KINGSVILLE

COMPILED BY:
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DEFINITIONS

Central Accumulation Area - Site designated by the Environmental Health & Safety Office to be used for the storage of hazardous wastes prior to shipment to authorized disposal facilities.

Disposal - The discharge, deposit, injection, dumping, spilling, or placing of any solid waste or hazardous waste (whether containerized or non-containerized) into or on any land or water so that such solid waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any water, including ground waters.

EPA Identification Number - The number assigned by the Environmental Protection Agency to each generator, transporter, and processing, storage or disposal facility.

Facility - Includes all contiguous land, and structures, other appurtenances, and improvements on the land used for storing, processing, or disposing of municipal hazardous waste or industrial solid waste.

Generator - Any person, by site, who produces municipal hazardous waste or industrial solid waste; any person who possesses municipal hazardous waste or industrial solid waste to be shipped to any other person; or any person whose act first causes the solid waste to become subject to regulation. Person refers to an individual, trust, firm, corporation, Federal Agency, State, political subdivision of a State, municipality, or any interstate body.

Hazardous Material - a substance or material, including a hazardous substance, which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated.

Hazardous Waste - Any solid waste material listed or identified in Title 40 Code of Federal Regulations, Part 261, Subpart C and D or exhibiting the characteristics of ignitability, corrosivity, reactivity, or EP toxicity also defined in Part 261. Tables containing the listing and characteristics of hazardous wastes are shown in Appendix B. (In this definition, "solid waste" does not refer to a waste's physical characteristics. See Solid Waste.)

Manifest - A legal document containing required information, which must accompany shipments of Municipal Hazardous Waste or Class I-Industrial Solid Waste transported on public roads or thoroughfares.

Mixed Waste - A radioactive waste that is also a hazardous waste.

Permit - A written document issued by EPA or TNRCC that, by its conditions, authorizes the construction, installation, modification, or operation of a specified municipal hazardous waste or industrial solid waste storage, processing, or disposal facility in accordance with specified limitations.

Processing - The extraction of materials, transfer, volume reduction, conversion to energy, or other separation and preparation of solid waste for reuse or disposal, including the treatment or neutralization of hazardous waste, designed to change the physical, chemical, or biological characteristics or composition of any hazardous waste so as to neutralize such waste, or as to recover energy or material from the waste or so as to render such waste non-hazardous or less hazardous; safer to transport, store, and dispose; or amenable for recovery, amenable for storage, or reduced in volume.

Recyclable Materials - Wastes that are recycled. Recycled material is used, reused, or reclaimed.

Reclaimed material is processed or regenerated to recover a usable product.
Examples: Recovery of lead from spent batteries, or regeneration of spent solvent.

Satellite Accumulation Area - An area, system, or structure used for temporary accumulation of hazardous waste prior to transport to the central accumulation area.

Solid Waste - Any garbage, refuse, sludge from a waste treatment plant, water treatment plant, or air pollution control facility or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, municipal, commercial, mining and agricultural operations, and from community and institutional activities.

Storage - The holding of solid waste for a temporary period, at the end of which the waste is processed, disposed of, recycled, or stored elsewhere.

Texas Solid Waste Number - The number assigned by the TNRCC to each generator, transporter, and processing, storage, or disposal facility.

Transporter - Any person who conveys or transports municipal hazardous waste or industrial solid waste by truck, ship, pipeline or other means.

Universal Waste – any hazardous waste subject to 40CFRPart273 and TAC335.261 to include:

- A. **Batteries** including lead-acid that are not managed under 40CFR266, Subpart G;
- B. Recalled pesticides that are part of a voluntary or mandatory recall under FIFRA or pesticides managed as part of a waste pesticide program; and
- C. **Mercury** Thermostats that are not hazardous using 40CFR261, Subpart C;
- D. **Fluorescent lamps containing mercury**;
- E. **Paint and Paint Related Material** in accordance with TNRCC regulations.

Waste - Any material for which there is no use and is to be discarded as valueless.

I. Introduction

The purpose of this document is to inform faculty, staff, employees, and students at Texas A&M University Kingsville regarding Federal and State hazardous waste disposal regulations and to define the TAMUK Hazardous Waste Management Program. This Program applies to all TAMUK operations. The Program pertains to hazardous chemical waste and does not include procedures for the management of radioactive, infectious, and biological waste. The Environmental Health and Safety (EHS) Office administers the Hazardous Waste Management Program at TAMUK. Compliance with the program is critical and requires full cooperation by all campus entities.

Texas A&M University-Kingsville is a "Large Quantity Generator" of hazardous waste and must comply with the State and Federal regulations on waste disposal associated with that classification. A "Large Quantity Generator" (LQG) as defined by the Texas Commission on Environmental Quality (TCEQ) is anyone who generates 2,200 pounds or more of hazardous waste and 2.2 pounds or more of acutely hazardous waste per calendar month. As an LQG, the generator must:

- Notify the TCEQ and EPA of hazardous waste generation;
- Identify all hazardous waste generated;
- Amend Notice of Registration (NOR) for new waste streams (including Texas waste stream number), waste management units, and/or change in contact information as necessary;
- Send the hazardous waste to an approved hazardous waste facility;
- Store hazardous waste not more than 90 days;
- Submit annual summary report to the State of Texas.

Presently, both the TCEQ and the Environmental Protection Agency (EPA) have the authority to inspect the university's Hazardous Waste Management Program for compliance.

The LQG permit requires that once a chemical is declared hazardous chemical waste, it must be removed from the campus within 90 days. TAMUK is not permitted to treat or dispose of waste locally. All waste must be transported to an authorized off-site facility for further storage, treatment, and/or disposal. It is illegal to dispose of hazardous chemical waste by dilution, evaporation, or dumping into the sanitary sewers, storm-water drains, or into the local landfill. **Only under special circumstances where the waste has been processed through an authorized Wastewater Treatment Plant will the waste be allowed to be disposed into the sanitary sewer.** The EHS Office personnel will collect, transport, and store hazardous chemical waste prior to final disposal. In addition, this office will provide technical information and assistance to individual generators and maintain permanent records of all hazardous chemical waste movement on the main campus. Additional information on specific responsibilities and procedures may be obtained by contacting the EHS Office at **(361)593-2645** or ext **2645** if calling on a main campus phone.

II. Hazardous Waste Disposal Regulations

Since Federal and State regulations govern hazardous chemical waste disposal at TAMUK, failure to comply with any hazardous chemical waste regulation may result in substantial fines and penalties for the University; individual generators (e.g., principal investigators, employees) causing the violation will be held personally liable. Violations may range from failure to properly label a container of hazardous waste to intentionally disposing of hazardous chemical waste into the air, down the drain, or in the garbage.

The Resource Conservation and Recovery Act (RCRA) is administered by the U. S. Environmental Protection Agency (EPA). Under this Act, the EPA has the responsibility for regulating hazardous chemical wastes. RCRA established a "cradle to grave" hazardous chemical waste management requirement to protect public health and the environment from improper disposal of hazardous chemical waste. The law went into effect in November 1980. Similarly, the Texas Natural Resource Conservation Commission (TNRCC) administers an equivalent program for the State of Texas under the Industrial Solid Waste and Municipal Hazardous Waste Regulations (Title 31, Part IX, Chapter 335).

As a "Large Quantity Generator" of hazardous chemical waste, TAMUK has been issued an EPA Identification Number and a Texas Solid Waste Registration Number for storing and transporting hazardous chemical waste. Before transporting or offering hazardous chemical waste for transportation to an authorized off-site facility, all requirements of packaging, labeling, marking and placarding must be met.

A waste generator never totally loses liability for environmental damage; therefore, the selection of a reliable disposal facility is very important. In Texas, penalties for non-compliance may be civil, criminal, or administrative violations with penalties ranging from fines of up to **\$25,000 per day to a 15-year prison term for individuals.**

III. Hazardous Waste Disposal Program

Generators are responsible for following the University's disposal procedures, for assuring that their employees are trained in proper disposal procedures, and for properly identifying the hazardous chemical waste generated. The following procedures are intended to assure compliance with applicable Federal and State regulations for the proper management of hazardous chemical waste and to reduce adverse effects to human health and the environment.

Hazardous Chemical Waste Determination

A material becomes "waste" when the individual generator determines that it is no longer useful and should be discarded. If the material is to be discarded, EHS personnel must determine whether the chemical waste is non-hazardous or hazardous. A material is "non-hazardous chemical waste" if it does not meet the definition of "hazardous chemical waste". A material is "hazardous chemical waste" if it meets one or more of the following:

1. It is a chemical listed on one of the Chemical Tables in Appendix B.
2. It is a mixture or solution containing a listed (Appendix B) chemical and a non-hazardous chemical.
3. It has one or more of the following characteristics (**TRIC**):
 - A. **T**oxic (e.g., pesticides, heavy metals, poisons);
 - B. **R**eactivity (e.g., responds violently to air or water, cyanides, explosives, unstable chemicals);
 - C. **I**gnitability (flashpoint <140° F or supports combustion);
 - D. **C**orrosivity (pH ≤2 or ≥12.5);
 - E. The waste is classified as a "Universal Waste";
 - F. Material is not excluded from regulations.

General Information

1. Non-hazardous waste may be disposed of using the sanitary sewer or regular trash. Additional information about non-hazardous waste disposal can be obtained from the EHS Office.
2. Hazardous chemicals can be treated to reduce the hazard or the quantity of waste in the laboratory if the treatment procedure is included in the experimental protocol.
3. Gas cylinders should be returned to the manufacturer or distributor whenever possible. Non-returnable cylinders should be tagged as hazardous waste.

4. **Photographic lab waste containing silver must be disposed as hazardous chemical waste.** However, some new developing equipment includes a filtration system that removes the **silver**. Photographic lab effluent that does not contain silver may be discarded through the sanitary sewer system. **Notify the EHS Office if you have this type of equipment.**
5. Chemical waste that is "unknown" should have a waste disposal tag on the container with "unknown" for the chemical description. Generators will be **charged for the cost** of analysis necessary to determine the chemical identity for proper disposal.
6. **"Mixed Waste" (includes both radioactive material and hazardous chemicals)** will be initially routed through the EHS Office.

Classification and Segregation of Hazardous Chemical Waste

All hazardous waste that is generated in the work area shall be segregated according to the hazard class and type of chemical waste.

1. Hazardous chemical waste is categorized into the following hazard classes. *See Appendix B for more information.*
 - A. Halogenated solvents
 - B. Non-halogenated solvents
 - C. Acids (inorganic or organic)
 - D. Bases (inorganic or organic)
 - E. Heavy metals (silver, cadmium, lead, mercury, etc.)
 - F. Poisons (inorganic or organic)
 - G. Reactives (cyanides, sulfides, water reactive chemicals, peroxides, etc.)
 - H. Petroleum oil
 - I. Paint and Paint Related Material
2. Different classes of hazardous chemical waste must not to be disposed of in the same waste container.
3. Do not combine inorganic heavy metal compounds and organic waste solvents.
4. Do not combine non-hazardous waste (e.g., mixture of water, dilute acetic acid, and sodium bicarbonate) with hazardous chemical waste.
5. Dry materials (paper, rags, towels, gloves, or Kim Wipes™, etc.) contaminated with flammable or extremely toxic chemicals must be double-bagged in heavy-duty plastic bags and must be treated as hazardous chemical waste. Do not use **biohazard bags**.
6. Sharps (needles, razor blades, etc.) are classified as biohazardous waste even if they are not contaminated. Sharps must be encapsulated (Place the sharps in a "puncture resistant" container or plastic/metal container and then fill it with paraffin or Plaster of Paris™.). Discard the containers of sharps as bio-hazardous waste. *Contact the EHS Office for additional information.*

Containment and Storage of Hazardous Chemical Waste

All containers used for hazardous waste must be constructed of appropriate material and all containers must be stored properly.

1. Waste generators must maintain custody and control of the storage areas and ensure the waste is accessible to the EHS Office personnel.
2. Individual waste generators shall assure that their hazardous chemical wastes are accumulated in safe, transportable containers, properly labeled, and stored to prevent human exposure or environmental release of the waste materials.
3. Waste generators shall provide their own waste containers that are **compatible with the chemical contents (e.g., do not use metal containers for corrosive waste or plastic containers for organic solvent)**. Containers must be in good condition and not leak. All containers must have suitable screw caps or other means of secure closure. When large waste containers (>10 gallons, total volume) are required, contact the EHS Office for assistance on selection and placement of appropriate container type and size.
4. Never overfill hazardous waste containers. Expansion and excess weight can lead to spills, explosions, and extensive environmental exposure.
 - A. Containers of solids must not be filled beyond their weight and volume capacity.
 - B. Jugs and bottles should not be filled above the shoulder of the container.
 - C. Closed head cans (5 gallons or less) should have at least two inches of headspace between the liquid level and the head of the container.
 - D. Closed head drums (larger than 5 gallons) should have at least four inches of headspace.
5. Containers must be closed or sealed to prevent leakage. ***All waste collection containers must be kept closed except when adding or removing material.***
6. **In addition to the above, Satellite Accumulation Areas must ensure:**
 - A. The area is secured from "Unauthorized Entry" and emergency contact information is posted.
 - B. Waste is stored in a **designated and marked area**.
 - C. These areas must be accessible to the EHS Office personnel.
 - D. Hazardous waste is separated from non-waste chemicals.
 - E. That less than 55 gallons of anyone hazard class of waste or one quart of acutely hazardous waste is being stored.
 - F. Spill Control Equipment is available And accessible.

Labels and Labeling

All containers of hazardous waste must be labeled appropriately.

1. The original chemical label on containers used for waste accumulation must be destroyed or defaced.
2. EPA regulations require that waste containers be labeled with the chemical contents and the words "Hazardous Waste" **when the chemical waste is first added.**
3. **Containers at TAMUK will be labeled with the following information printed clearly and legibly:**
 - A. The words "**Hazardous Waste**"
 - B. The **chemical contents** with approximate percentage in the container.
 - C. **Identification number** that will correspond with the I.D. number on the inventory log.

Disposal

All hazardous waste generated at TAMUK must be disposed of according to state and federal regulations.

1. Waste containers that are full and/or ready for disposal must be properly labeled and logged on a Hazardous Waste Inventory Log. Contact the Environmental Health & Safety Office to receive a copy of the inventory log. Send the completed inventory log electronically to the EHS Office. Upon receiving the inventory log, the EHS Office schedules to collect the waste.
2. The EHS Office will not pickup containers with improper caps, leaks, outside contamination, improper labeling, or improperly logged or unlogged containers. **Identification numbers** are created by the individual waste generators themselves. The ID will consist of a location tag followed by a single digit for the year, a double digit for the month, and the bottle number. (Example: Waste from Chemistry that is logged for disposal July, 2009 will have "CHEM 907 – 01" for the first bottle "CHEM 907 – 02" for the second and so forth.)
3. It is illegal to dispose of hazardous chemicals in any of the following ways:
 - A. Disposal through the sanitary/storm drain.
 - B. Intentional evaporation in a fume hood.
 - C. Disposal in the regular trash.
4. Contact the EHS Office to pick up empty containers that are no longer needed. Broken containers must be placed in a broken glass container for disposal. Contact the EHS Office for help on proper disposal of broken glass.

IV. Source Reduction and Hazardous Waste Minimization

Hazardous waste regulations have evolved from emphasis on reduction to the prevention of environmental pollution. The Pollution Prevention Act of 1990 (Federal Regulation) made the prevention of pollution and reduction of waste generation, a national priority. The Texas Waste Reduction Policy Act (Senate Bill 1099 of 1991) required Texas A&M University-Kingsville to prepare and implement a Source Reduction and Waste Minimization Plan. The Plan (Appendix C) was developed and is coordinated by the TAMUK Environmental Health & Safety Office. The key to the Plan is "front-end minimization". Front-end minimization means reducing hazardous waste by reducing the quantities of hazardous chemicals used and through the utilization of suitable substitutes. Research and teaching laboratories and other working groups (Physical Plant, etc.) that generate hazardous waste **shall** review their purchasing practices and systems, chemical usage patterns, and workplace activities to identify potential points of their operations where source reduction and waste minimization can be implemented.

V. Emergency Procedures

TAMUK Hazard Communication Program requires that TAMUK employees be informed of hazardous materials that they might use or be exposed to at work. In addition, the program includes training on handling spills and other emergencies. Material Safety Data Sheets (MSDS) are a source of this information and must be maintained for all chemicals used or stored within a workplace. Special cleanup supplies shall be available and employees will be trained on how to use these supplies. Contaminated clothing, rags, absorbent materials, or other waste from cleanup of spills or leaks must be properly disposed. All labs shall post emergency numbers to be used and develop a response scenario for emergencies.

APPENDIX A

IDENTIFICATION OF HAZARDOUS WASTE

40 CFR

261.21 Characteristic of ignitability (D001).

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60C (140F), as determined by a Pinsky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see 40 CFR 260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see 40 CFR 260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in 40 CFR 260.20 and 40 CFR 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under 40 CFR 260.20 and 40 CFR 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

261.22 Characteristic of corrosivity (D002).

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a **pH less than or equal to 2 or greater than or equal to 12.5**, as determined by a pH meter using either an EPA test method or an equivalent test method approved by the Administrator under the procedures set forth in 40 CFR 260.20 and 40 CFR 260.21. The EPA test method for pH is specified as Method 5.2 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see 40 CFR 260.11).

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55C (130F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see 40 CFR 260.11) or an equivalent test method approved by the Administrator under the procedures set forth in 40 CFR 260.20 and 40 CFR 260.21.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

261.23 Characteristic of reactivity (D003).

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It 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 in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

261.24 Toxicity characteristic (D004 – D043).

(a) A solid waste exhibits the characteristic of toxicity if the extract from a representative sample of the waste contains any of the contaminants listed in Table I at a concentration equal to or greater than the respective value given in that Table. Where the waste contains less than 0.5 percent filterable solids, the waste itself is considered to be the extract for the purpose of this section.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

Table I - Maximum Concentration of Contaminants for the Toxicity Characteristic

EPA Hazardous Waste Number [1]	Contaminant	CAS NO.[2]	Regulatory Level (mg/L)	EPA Hazardous Waste Number [1]	Contaminant	CAS NO.[2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5	D033	Hexachlorobutadiene	87-68-3	0.5
D005	Barium	7440-39-3	100	D034	Hexachloroethane	67-72-1	3.0
D018	Benzene	71-43-2	0.5	D008	Lead	7439-92-1	5.0
D006	Cadmium	7440-43-9	1	D013	Lindane	58-89-9	0.4
D019	Carbon tetrachloride	6-23-5	0.5	D009	Mercury	7439-97-6	0.2
D020	Chlordane	57-74-9	0.03	D014	Methoxychlor	72-43-5	10.0
D021	Chlorobenzene	08-90-7	100	D035	Methyl ethyl ketone	78-93-3	200.0
D022	Chloroform	67-66-3	6	D036	Nitrobenzene	98-95-3	2.0
D007	Chromium	7440-47-3	5	D037	Pentachlorophenol	87-86-5	100.0
D023	o-Cresol	95-48-7	[4]200.0	D038	Pyridine	110-86-1	[3]5.0
D024	m-Cresol	108-39-4	[4]200.0	D010	Selenium	7782-49-2	1.0
D025	p-Cresol	106-44-5	[4]200.0	D011	Silver	7440-22-4	5.0
D026	Cresol	-----	[4]200.0	D039	Tetrachloroethylene	127-18-4	0.7
D016	2,4-D	94-75-7	10	D015	Toxaphene	8001-35-2	0.5
D027	1,4-Dichlorobenzene	106-46-7	7.5	D040	Trichloroethylene	79-01-6	0.5
D028	1,2-Dichloroethane	107-06-2	0.5	D041	2,4,5-Trichloro-phenol	95-95-4	400.0
D029	1,1-Dichloroethylene	75-35-4	0.7	D042	2,4,6-Trichloro-phenol	88-06-2	2.0
D030	2,4-Dinitrotoluene	121-14-2	[3]0.13	D017	2,4,5-TP (Silvex)	93-72-1	1.0
D012	Endrin	72-20-8	0.02	D043	Vinyl chloride	75-01-4	0.2
D031	Heptachlor (and its epoxide).	76-44-8	0.008				
D032	Hexachlorobenzene	118-74-1	[3]0.13				

[1] Hazardous waste number. D-codes are designated for normal Hazardous Waste.

[2] Chemical abstracts service number.

[3] Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

[4] 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.

261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in 40 CFR 261.2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section.

(b) Any off-specification commercial chemical or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) or (f) of this section.

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraphs (e) or (f) of this section, unless the container is empty as defined in 40 CFR 261.7(b) of this chapter.

[Comment: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, EPA considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.]

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in paragraph (e) or (f) of this section, or any residue or contaminated soil, water or other debris resulting from the cleanup off a spill, into on any land or water, of any off-specification commercial chemical product or manufacturing chemical intermediate having the generic name listed in listed in paragraph (e) or (f) of this section.

[Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in ..." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in paragraph (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraph (e) or (f), such waste will be listed in either 40 CFR 261.31 or 40 CFR 261.32 or will be identified as a hazardous waste by the characteristics set forth in Subpart C of this part]

(e) The commercial chemical products, manufacturing chemical intermediate off-specification commercial chemical product or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to be the small quantity exclusion defined in 40 CFR 261.5(e).

[Comment: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity]

P-codes designated for Acutely Hazardous Waste

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
PO23	107-20-0	Acetaldehyde, chloro	P010	7778-39-4	Arsenic Acid H(3)AsO(4)
P002	591-08-2	Acetamide, N-(amino thioxomethyl)-	P012	1327-53-3	Arsenic oxide As(2)O(3)
P057	640-19-7	Acetamide, 2-fluoro	P011	1303-28-2	Arsenic oxide As(2)O(5)
P058	62-74-8	Acetic acid, fluoro, sodium salt	P011	1303-28-2	Arsenic pentoxide
P002	591-08-2	1-Acetyl-2-thiourea	P012	1327-53-3	Arsenic trioxide
P003	107-02-8	Acrolein	P038	692-42-2	Arsine, diethyl-
P070	116-06-2	Aldicarb	P036	696-28-6	Arsonous dichloride, phenyl-
P004	309-00-2	Aldrin	P054	151-56-4	Aziridine
P005	107-18-6	Allyl alcohol	P067	75-55-8	Aziridine, 2-methyl-
P006	20859-73-8	Aluminum phosphide (R,T)	P013	542-62-1	Barium cyanide
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol	P024	106-47-8	Benzenamine, 4-chloro-
P008	504-24-5	4-Aminopyridine	P077	100-01-6	Benzenamine, 4-nitro-
P009	131-74-8	Ammonium picrate (R)	P028	100-44-7	Benzene, (chloromethyl)-
P119	7803-55-6	Ammonium vanadate	P042	51-43-4	1,2-Benzenediol, -[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium	P046	122-09-8	Benzeneethanamine, alpha, alpha-dimethyl-

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
P014	108-98-5	Benzenethiol	P051	72-20-5	2,7,3,6-Dimethanonaphth[2,3b]oxirine,3,4,5,6,9-hexachloro
P001	[1]81-81-2	2H-1-Benzopyran-2-one,4-hydroxy-3-(3-oxo-1-phenylbutyl)-and trations greater than 0.3%			salts when 2,2,3,6,6,7,7,8,8,8-tetrahydro-, (1alpha,2beta,2beta,3alpha,6alpha,6beta,7beta,7alpha)-, & metabolites
P028	100-44-7	Benzyl chloride	P044	60-51-5	Dimethoate
P015	7440-41-7	Beryllium	P046	122-09-8	alpha, alpha-Dimethylphene thylamine
P017	598-31-2	Bromoacetone	P047	[1]534-52-1	4,6-Dinitro-o-cresol, and salts
P018	357-57-3	Brucine	P048	51-28-5	2,4-Dinitrophenol
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino carbonyl] oxime	P020	88-85-7	Dinoseb
P021	592-01-8	Calcium cyanide	P085	152-16-9	Diphosphoramidate, octamethyl-
P021	592-01-8	Calcium cyanide Ca(CN)(2)	P111	107-49-3	Diphosphoric acid, tetraethyl ester
P022	75-15-0	Carbon disulfide	P039	298-04-4	Disulfoton
P095	75-44-5	Carbonic dichloride	P049	541-53-7	Dithiobiuret
P023	107-20-0	Chloroacetaldehyde	P050	115-29-7	Endosulfan
P024	106-47-8	p-Chloroaniline	P088	145-73-3	Endothall
P026	5344-82-1	1-(o-Chlorophenyl)thiourea	P051	72-20-8	Endrin
P027	542-76-7	3-Chloropropionitrile	P051	72-20-8	Endrin, & metabolites
P029	544-92-3	Copper cyanide	P042	51-43-4	Epinephrine
P029	544-92-3	Copper cyanide Cu(CN) ₂	P031	460-19-5	Ethanedinitrile
P030	Cyanides (soluble cyanide salts), not otherwise specified	P066	16752-77-5	Ethanimidothioic acid, N [[(methylamino)carbonyl]oxy]-, methyl ester
P031	460-19-5	Cyanogen	P101	107-12-0	Ethyl cyanide
P033	506-77-4	Cyanogen chloride	P054	151-56-4	Ethyleneimine
P033	506-77-4	Cyanogen chloride (CN)Cl	P097	52-85-7	Famphur
P034	131-89-5	2-Cyclohexyl-4,6-dinitro phenol	P056	7782-41-4	Fluorine
P016	542-88-1	Dichloromethyl ether	P057	640-19-7	Fluoroacetamide
P036	696-28-6	Dichlorophenylarsine	P058	62-74-8	Fluoroacetic acid, sodium salt
P037	60-57-1	Dieldrin	P065	628-86-4	Fluminic acid, mercury(2+) salt (R,T)
P038	692-42-2	Diethylarsine	P059	76-44-8	Heptachlor
P041	311-45-5	Diethyl-p-nitrophenylphosphate	P062	757-58-4	Hexaethyl tetraphosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate	P116	79-19-6	Hydrazinecarbothioamide
P043	55-91-4	Diisopropylfluorophosphate (DFP)	P068	80-34-4	Hydrazine, methyl-
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-,(1alpha,4alpha,1,4,5,8-Dimethanonaphthalene,1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8abeta,5beta,8beta,8abeta)-	P063	74-90-8	Hydrocyanic acid
P060	465-73-6	1,4,5,8-Dimethanonaphthalene,1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8abeta,5beta,8beta,8abeta)-	P063	74-90-8	4beta,5beta,8alpha,8beta)-
P037	60-57-1	Dieldrin	P096	7803-51-2	Hydrogen phosphide
			P060	465-73-6	a-hexahydro-1,4,4a,5,8,8abeta,5beta,8beta,8abeta)-
			P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
			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

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
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	P094	296-04-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P059	76-44-8	4,7-Methano-1H-indene,1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro	P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl -[2-(methylamino)-2-oxoethyl] ester
P066	16752-77-5	Methomyl	P043	55-91-4	Phosphorofluoridic acid, bis-(1-methylethyl) ester
P068	60-34-4	Methyl hydrazine	P089	56-38-2	Phosphorothioic acid, O,O-diethyl
P064	624-83-9	Methyl isocyanate	P040	297-92-2	Phosphorodithioic acid, O,O-diethyl O-pyrazinyl ester
P069	75-86-5	2-Methylactonitrile	P097	52-85-7	Phosphorodithioic acid, O-O,4[(diimethylamino)sulfonyl]phenyl]O,O-dimethyl ester
P071	298-00-0	Methyl parathion	P071	296-00-0	Phosphorodithioic acid, O,O-dimethyl O-(4-nitrophenyl)ester
P072	86-88-4	alpha-Naphthylthiourea	P110	78-00-2	Plumbane, tetraethyl-
P073	13463-39-3	Nickel carbonyl	P098	151-50-8	Potassium cyanide
P073	13463-39-3	Nickel carbonyl Ni(CO)(4), (T-4)-	P098	151-50-8	Potassium cyanide K(CN)
P074	557-19-7	Nickel cyanide	P099	506-61-6	Potassium silver cyanide
P074	557-19-7	Nickel cyanide Ni(CN)(2)	P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-O-[(methylamino)carbonyl]oxime
P075	[1]54-11-5	Nicotine and salts	P101	107-12-0	Propanenitrile
P076	10102-43-9	Nitric oxide	P027	542-76-7	Propanenitrile,3-chloro-
P077	100-01-6	p-Nitroaniline	P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P078	10102-44-0	Nitrogen dioxide	P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P076	10102-43-9	Nitrogen oxide NO	P017	598-31-2	2-Propanone, 1-bromo-
P078	10102-44-0	Nitrogen oxide NO(2)	P102	107-19-7	Propargyl alcohol
P081	55-63-0	Nitroglycerine (R)	P003	107-02-8	2-Propenal
P082	62-75-9	N-Nitrosomethylamine	P005	107-18-6	2-Propen-1-ol
P084	4549-40-0	N-Nitrosomethylvinylamine	P067	75-55-8	1,2-Propylenimine
P085	152-16-9	Octamethylpyrophosphoramidate	P102	107-19-7	2-Propyn-1-ol
P087	20816-12-0	Osmium oxide OsO(4), (T-4)-	P008	504-24-5	4-Pyridinamine
P087	20816-12-0	Osmium tetroxide	P075	[1]54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-,(S)-, and salts
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	P114	12039-52-0	Selenious acid, dithallium(1+) salt
P089	56-38-2	Parathion	P103	630-10-4	Selenourea
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-	P104	506-64-9	Silver cyanide
P048	51-28-5	Phenol, 2,4-dinitro-	P104	506-64-9 salt (R)	Silver cyanide Ag(CN)
P047	[1]534-52-1	Phenol, 2-methyl-4,6-dinitro-and salts	P105	26628-22-8	Sodium azide
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	P106	143-33-9	Sodium cyanide
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium	P106	143-33-9	Sodium cyanide Na(CN)
P092	62-38-4	Phenylmercury acetate	P108	[1]57-24-9	Strychnidin-10-one, and salts
P093	103-85-5	Phenylthiourea	P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P094	298-02-2	Phorate	P108	[1]57-24-9	Strychnine, and salts
P095	75-44-5	Phosgene	P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P096	7803-51-2	Phosphine	P109	3689-24-5	Tetraethylthiopyrophosphate
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester			
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester			

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
P110	78-00-2	Tetraethyl lead	P072	86-88-4	Thiourea, 1-naphthalenyl-
P111	107-49-3	Tetraethyl pyrophosphate	P093	103-85-5	Thiourea, phenyl-
P112	509-14-8	Tetranitromethane (R)	P123	8001-35-2	Toxaphene
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester	P118	75-70-7	Trichloromethanethiol
P113	1314-32-5	Thallic oxide	P119	7803-55-6	Vanadic acid, ammonium salt
P113	1314-32-5	Thallium oxide Tl(2)O(3)	P120	1314-62-1	Vanadium oxide V(2)O(5)
P114	12039-52-0	Thallium(I) selenite	P120	1314-62-1	Vanadium pentoxide
P115	7446-18-6	Thallium(I) sulfate	P084	4549-40-0	Vinylamine, N-methyl-N-nitroso
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester	P001	[1]81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P045	39196-18-4	Thiofanox	P121	557-21-1	Zinc cyanide
P049	541-53-7	Thiomidodicarbonic diamide (H(2)N)C(S)](2)NH	P121	557-21-1	Zinc cyanide Zn(CN)(2)
P014	108-98-5	Thiophenol	P122	1314-84-7	Zinc phosphide Zn(3)P(2), when than 10% (R,T)
P116	79-19-6	Thiosemicarbazide			
P026	5344-82-1	Thiourea, (2-chlorophenyl)-			

[1] CAS Number given for parent compound only.

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in 40 CFR 261.5 (a) and (g).

[Comment: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:
(U-codes are designated for Toxic Non-Acute Hazardous Waste)

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
U001	75-07-0	Acetaldehyde (I)	U009	107-13-1	Acrylonitrile
U034	75-87-6	Acetaldehyde, trichloro-	U011	61-82-5	Amitrole
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-	U012	62-53-3	Aniline (I,T)
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-	U136	75-60-5	Arsinic acid, dimethyl
U240	[1]94-75-7	Acetic acid, (2-4-dichloro-phenoxy), salts & esters	U014	492-80-8	Auramine
U112	141-78-6	Acetic acid, ethyl ester (I)	U015	115-02-6	Azaserine
U144	301-04-2	Acetic acid, lead(2+) salt	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-(1aalph, Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U214	563-68-8	Acetic acid, thallium(1+) salt	U157	50-49-5	
See F027	93-76-5	Acetic acid, (2,4,5-trichloro-phenoxy)-	U016	225-51-4	Benz(c)acridine
U002	67-64-1	Acetone (I)	U017	98-87-3	Benzal chloride
U003	75-05-8	Acetonitrile (I,T)	U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-diethyl-2-propynyl)-
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)			

Hazardous Waste No.	Chemical Abstracts No.	Substance	No.	No.	
			U183	608-93-5	Benzene, pentachloro-
			U185	82-68-8	Benzene, pentachloronitro-
U018	56-55-3	Benz[a]anthracene	U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U094	57-97-6	Benz[a]anthracene,7,12-dimethyl-	U020	98-09-9	Benzenesulfonyl chloride (C,R)
U012	62-53-3	Benzenamine (1,T)	U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U014	492-80-8	Benzenamine,4,4-carbonim- idoylbis(N,N-dimethyl-	U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloro ethylidene) bis[4-chloro-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl- hydrochloride	U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloro ethylidene) bis[4- methoxy-
U093	60-11-7	Benzenamine, N,N-dimethyl- 4-(phenylazo)-	U023	98-07-7	Benzene, (trichloromethyl)-
U328	95-53-4	Benzenamine, 2-methyl-	U234	99-35-4	Benzene, 1,3,5-trinitro-
U353	106-49-0	Benzenamine, 4-methyl-	U021	92-87-5	Benzidine
U158	101-14-4	Benzenamine, 4,4'-methylenebis [2-chloro-	U202	[1]81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, and salts
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride	U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U181	99-55-8	Benzenamine, 2-methyl-5-nitro	U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U019	71-43-2	Benzene (I,T)	U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U038	510-15-6	Benzenoacetic acid,4-chloro-alpha- (4-chlorophenyl)-alpha-hydroxy ethyl ester	U064	189-55-9	Benzo[rs]t]pentaphene
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-	U248	[1]81-81-2	2H-1-Benzopyran-2-one, -hydroxy -3-(3-oxo-1-phenyl- butyl)-, & salts, when present at concentrations of 0.3% or less
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2- chloroethyl)amino]-	U022	50-32-8	Benzo[a]pyrene
U037	108-90-7	Benzene, chloro	U197	106-51-4	p-Benzoquinone
U221	25376-45-8	Benzenediamine, ar-methyl-	U023	96-07-7	Benzotrithloride (C,R,T)
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	U085	1464-53-5	2,2'-Bioxirane
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl	U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U070	95-50-1	Benzene, 1,2-dichloro-	U225	75-25-2	Bromoform
U071	541-73-1	Benzene, 1,3-dichloro-	U030	101-55-3	4-Bromophenyl phenyl ether
U072	106-46-7	Benzene, 1,4-dichloro-	U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4- hexachloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloro- ethylidene)bis[4-chloro-	U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U017	98-87-3	Benzene, (dichloromethyl)-	U031	71-36-3	1-Butanol (I)
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl-	U159	78-93-3	2-Butanone (I,T)
U239	1330-20-7	Benzene, dimethyl-(I,T)	U160	1338-23-4	2-Butanone peroxide (R,T)
U201	108-46-3	1,3-Benzenediol	U053	4170-30-3	2-Butenal
U127	118-74-1	Benzene, hexachloro-	U074	764-41-0	2-Butene, 1,4-dichloro-(I,T)
U056	110-82-7	Benzene, hexahydro- (I)	U143	303-34-4	2-Butenoic acid, 2-methyl-, ethyl)-3-methyl-1-oxobutoxy] methyl]-2,3,5,7a-tetrahydro-1H- pyrrolizin-1-yl ester,[1S-[1alpha (Z),7(2S*,3R*),7aalpha]]-
U220	108-88-3	Benzene, methyl-	U031	71-36-3	n-Butyl alcohol (I)
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-	U136	75-60-5	Cacodylic acid
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-			
U055	98-82-8	Benzene, (1-methylethyl)- (I)			
U169	98-95-3	Benzene, nitro-			
Hazardous Waste	Chemical Abstracts	Substance			

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
U032	13765-19-0	Calcium chromate	U062	2303-16-4	Diallate
U238	51-79-6	Carbamic acid, ethyl ester	U063	53-70-3	Dibenz[a,h]anthracene
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester	U064	189-55-9	Dibenzo[a,i]pyrene
U097	79-44-7	Carbamic chloride, dimethyl	U066	96-12-8	1,2-Dibromo-3-chloropropane
U114	[1]111-54-6	Carbamodithioic acid, 1,2-ethanediybis-, salts and esters	U069	84-74-2	Dibutyl phthalate
U062	2303-16-4	Carbamothioic acid, bis(1-methyl ethyl)-,S-(2,3-dichloro-2-propenyl) ester	U070	95-50-1	o-Dichlorobenzene
U215	6533-73-9	Carbonic acid, dithallium(1+) salt	U071	541-73-1	m-Dichlorobenzene
U033	353-50-4	Carbonic difluoride	U072	106-46-7	p-Dichlorobenzene
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)	U073	91-94-1	3,3'-Dichlorobenzidine
U033	353-50-4	Carbon oxyfluoride (R,T)	U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U211	56-23-5	Carbon tetrachloride	U075	75-71-8	Dichlorodifluoromethane
U034	75-87-6	Chloral	U078	75-35-4	1,1-Dichloroethylene
U035	305-03-3	Chlorambucil	U079	156-60-5	1,2-Dichloroethylene
U036	57-74-9	Chlordane, alpha and gamma isomers	U025	111-44-4	Dichloroethyl ether
U026	494-03-1	Chlornaphazin	U027	108-60-1	Dichloroisopropyl ether
U037	108-90-7	Chlorobenzene	U024	111-91-1	Dichloromethoxy ethane
U038	510-15-6	Chlorobenzilate	U081	120-83-2	2,4-Dichlorophenol
U039	59-50-7	p-Chloro-m-cresol	U082	87-65-0	2,6-Dichlorophenol
U042	110-75-8	2-Chloroethyl vinyl ether	U084	542-75-6	1,3-Dichloropropene
U044	67-66-3	Chloroform	U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U046	107-30-2	Chloromethyl methyl ether	U108	123-91-1	1,4-Diethyleneoxide
U047	91-58-7	beta-Chloronaphthalene	U028	117-81-7	Diethylhexyl phthalate
U048	95-57-8	o-Chlorophenol	U086	1615-80-1	N,N'-Diethylhydrazine
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride	U087	3288-58-2	O,O-Diethyl S-methyl dithio-phosphate
U032	13765-19-0	Chromic acid, H(2)CrO(4) calcium salt	U088	84-66-2	Diethyl phthalate
U050	218-01-9	Chrysene	U089	56-53-1	Diethylstilbestrol
U051	Creosote	U090	94-58-6	Dihydrosafrole
U052	1319-77-3	Cresol (Cresylic acid)	U091	119-90-4	3,3'-Dimethoxybenzidine
U053	4170-30-3	Crotonaldehyde	U092	124-40-3	Dimethylamine (I)
U055	98-82-8	Cumene (I)	U093	60-11-7	p-Dimethylaminoazobenzene
U246	506-68-3	Cyanogen bromide (CN)Br	U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione	U095	119-93-7	3,3'-Dimethylbenzidine
U056	110-82-7	Cyclohexane (I)	U096	80-15-9	alpha,alpha-Dimethylbenzyl hydroperoxide (R)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1alpha,2alpha,3beta,4alpha,5alpha,6beta)-	U097	79-44-7	Dimethylcarbamoyl chloride
U057	108-94-1	Cyclohexanone (I)	U098	57-14-7	1,1-Dimethylhydrazine
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa- chloro-	U099	540-73-8	1,2-Dimethylhydrazine
U058	50-18-0	Cyclophosphamide	U101	105-67-9	2,4-Dimethylphenol
U240	[1]94-75-7	2,4-D, salts and esters	U102	131-11-3	Dimethyl phthalate
U059	20830-81-3	Daunomycin	U103	77-78-1	Dimethyl sulfate
U060	72-54-8	DDD	U105	121-14-2	2,4-Dinitrotoluene
U061	50-29-3	DDT	U106	606-20-2	2,6-Dinitrotoluene
			U107	117-84-0	Di-n-octyl phthalate
			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
			U041	106-89-8	Epichlorohydrin
			U001	75-07-0	Ethanal (I)
			U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
			U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
U067	106-93-4	Ethane, 1,2-dibromo-	U163	70-25-7	Guanidine, N-methyl-N-nitro-N-nitroso-
U076	75-34-3	Ethane, 1,1-dichloro-	U127	118-74-1	Hexachlorobenzene
U077	107-06-2	Ethane, 1,2-dichloro-	U128	87-68-3	Hexachlorobutadiene
U131	67-72-1	Ethane, hexachloro	U130	77-47-4	Hexachlorocyclopentadiene
U024	111-91-1	Ethane, 1,1'-[methylenebis-(oxy)]bis[2-chloro-	U131	67-72-1	Hexachloroethane
U117	60-29-7	Ethane, 1,1'-oxybis- (I)	U132	70-30-4	Hexachlorophene
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	U243	1888-71-7	Hexachloropropene
U184	76-01-7	Ethane, pentachloro-	U133	302-01-2	Hydrazine (R,T)
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-	U086	1615-80-1	Hydrazine, 1,2-diethyl-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-	U098	57-14-7	Hydrazine, 1,1-dimethyl-
U218	62-55-5	Ethanethioamide	U099	540-73-8	Hydrazine, 1,2-dimethyl-
U226	71-55-6	Ethane, 1,1,1-trichloro-	U109	122-66-7	Hydrazine, 1,2-diphenyl-
U227	79-00-5	Ethane, 1,1,2-trichloro-	U134	7664-39-3	Hydrofluoric acid (C,T)
U359	110-80-5	Ethanol, 2-ethoxy-	U134	7664-39-3	Hydrogen fluoride (C,T)
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-	U135	7783-06-4	Hydrogen sulfide
U004	98-86-2	Ethanone, 1-phenyl-	U135	7783-06-4	Hydrogen sulfide H(2)S
U043	75-01-4	Ethane, chloro-	U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U042	110-75-8	Ethane, (2-chloroethoxy)-	U116	96-45-7	2-Imidazolidinethione
U078	75-35-4	Ethane, 1,1-dichloro-	U137	193-39-5	Indeno[1,2,3-cd]pyrene
U079	156-60-5	Ethane, 1,2-dichloro-, (E)-	U190	85-44-9	1,3-Isobenzofurandione
U210	127-18-4	Ethane, tetrachloro-	U140	78-83-1	Isobutyl alcohol (I,T)
U228	79-01-6	Ethane, trichloro	U141	120-58-1	Isosafrole
U112	141-78-6	Ethyl acetate (I)	U142	143-50-0	Kepone
U113	140-88-5	Ethyl acrylate (I)	U143	303-34-4	Lasiocarpine
U238	51-79-6	Ethyl carbamate (urethane)	U144	301-04-2	Lead acetate
U117	60-29-7	Ethyl ether (I)	U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri
U114	[1]111-54-6	Ethylenebisdithiocarbamic acid, salts & esters	U145	7446-27-7	Lead phosphate
U067	106-93-4	Ethylene dibromide	U146	1335-32-6	Lead subacetate
U077	107-06-2	Ethylene dichloride	U129	58-89-9	Lindane
U359	110-80-5	Ethylene glycol monoethyl ether	U163	70-25-7	MNNG
U115	75-21-8	Ethylene oxide (I,T)	U147	108-31-6	Maleic anhydride
U116	96-45-7	Ethylenethiourea	U148	123-33-1	Maleic hydrazide
U076	75-34-3	Ethylidene dichloride	U149	109-77-3	Malononitrile
U118	97-63-2	Ethyl methacrylate	U150	148-82-3	Melphalan
U119	62-50-0	Ethyl methanesulfonate	U151	7439-97-6	Mercury
U120	206-44-0	Fluoranthene	U152	126-98-7	Methacrylonitrile (I,T)
U122	50-00-0	Formaldehyde	U092	124-40-3	Methanamine, N-methyl- (I)
U123	64-18-6	Formic acid (C,T)	U029	74-83-9	Methane, bromo-
U124	110-00-9	Furan (I)	U045	74-87-3	Methane, chloro- (I,T)
U125	98-01-1	2-Furancarboxaldehyde (I)	U046	107-30-2	Methane, chloromethoxy-
U147	108-31-6	2,5-Furandione	U068	74-95-3	Methane, dibromo-
U213	109-99-9	Furan, tetrahydro- (I)	U080	75-09-2	Methane, dichloro-
U125	98-01-1	Furfural (I)	U075	75-71-8	Methane, dichlorodifluoro-
U124	110-00-9	Furfuran (I)	U138	74-88-4	Methane, iodo-
U206	18883-66-4	Glucopyranose,2-deoxy-2-(3-methyl-3-nitrosoureido)-D	U119	62-50-0	Methanesulfonic acid, ethyl ester
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[methyl-nitrosoamino]carbonyl]amino]-	U211	56-23-5	Methane, tetrachloro-
U126	765-34-4	Glycidylaldehyde	U153	74-93-1	Methanethiol (I,T)
			U225	75-25-2	Methane, tribromo-
			U044	67-66-3	Methane, trichloro-

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
U121	75-69-4	Methane, trichlorofluoro-	U172	924-16-3	N-Nitrosodi-n-butylamine
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro- 2,3,3a,4,7,7a-hexahydro-	U173	1116-54-7	N-Nitrosodiethanolamine
U154	67-56-1	Methanol (I)	U174	55-18-5	N-Nitrosodiethylamine
U155	91-80-5	Methapyrilene	U176	759-73-9	N-Nitroso-N-ethylurea
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-	U177	684-93-5	N-Nitroso-N-methylurea
U247	72-43-5	Methoxychlor	U178	615-53-2	N-Nitroso-N-methylurethane
U154	67-56-1	Methyl alcohol (I)	U179	100-75-4	N-Nitrosopiperidine
U029	74-83-9	Methyl bromide	U180	930-55-2	N-Nitrosopyrrolidine
U186	504-60-9	1-Methylbutadiene (I)	U181	99-55-8	5-Nitro-o-toluidine
U045	74-87-3	Methyl chloride (I,T)	U193	1120-71-4	1,2-Oxathiolane,2,2-dioxide
U156	79-22-1	Methyl chlorocarbonate (I,T)	U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U226	71-55-6	Methyl chloroform	U115	75-21-8	Oxirane (I,T)
U157	56-49-5	3-Methylcholanthrene	U126	765-34-4	Oxirancarboxyaldehyde
U158	101-14-4	4,4-Methylenebis(2-chloroaniline)	U041	106-89-8	Oxirane, (chloromethyl)-
U068	74-95-3	Methylene bromide	U182	123-63-7	Paraldehyde
U080	75-09-2	Methylene chloride	U183	608-93-5	Pentachlorobenzene
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)	U184	76-01-7	Pentachloroethane
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)	U185	82-68-8	Pentachloronitrobenzene (PCNB)
U138	74-88-4	Methyl iodide	See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Methyl isobutyl ketone (I)	U161	108-10-1	Pentanol, 4-methyl-
U162	80-62-6	Methyl methacrylate (I,T)	U186	504-60-9	1,3-Pentadiene (I)
U161	108-10-1	4-Methyl-2-pentanone (I)	U187	62-44-2	Phenacetin
U164	56-04-2	Methylthiouracil	U188	108-95-2	Phenol
U010	50-07-7	Mitomycin C	U048	95-57-8	Phenol, 2-chloro-
U059	20830-81-3	5,12-Naphthacenedione,8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	U039	59-50-7	Phenol, 4-chloro-3-methyl-
U167	134-32-7	1-Naphthalenamine	U081	120-83-2	Phenol, 2,4-dichloro-
U168	91-59-8	2-Naphthalenamine	U082	87-65-0	Phenol, 2,6-dichloro-
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-	U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-
U165	91-20-3	Naphthalene	U101	105-67-9	Phenol, 2,4-dimethyl-
U047	91-58-7	Naphthalene, 2-chloro-	U052	1319-77-3	Phenol, methyl-
U166	130-15-4	1,4-Naphthalenedione	U132	70-30-4	Phenol, 2,2'-methylenebis [3,4,6-trichloro-
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl-hydroxy]-, tetrasodium salt	U170	100-02-7	Phenol, 4-nitro-
U166	130-15-4	1,4,Naphthoquinone	See F027	87-86-5	Phenol, pentachloro-
U167	134-32-7	alpha-Naphthylamine	See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
U168	91-59-8	beta-Naphthylamine	See F027	88-06-2	Phenol, 2,4,6-trichloro-
U217	10102-45-1	Nitric acid, thallium(1+) salt	U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U169	98-95-3	Nitrobenzene (I,T)	U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U170	100-02-7	p-Nitrophenol	U087	3288-58-2	Phosphorodithioic acid, 0,0-diethyl S-methyl ester 4,4'-diyl)bis(azo)bis[5-amino-
U171	79-46-9	2-Nitropropane (I,T)	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-
			U192	23950-58-5	Pronamide
			U194	107-10-8	1-Propanamine (I,T)
			U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-

Hazardous Waste No.	Chemical Abstracts No.	Substance	Hazardous Waste No.	Chemical Abstracts No.	Substance
U110	142-84-7	1-Propanamine, N-propyl- (I)	U208	630-20-6	1,1,1,2-Tetrachloroethane
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-	U209	79-34-5	1,1,2,2-Tetrachloroethane
U083	78-87-5	Propane, 1,2-dichloro-	U210	127-18-4	Tetrachloroethylene
U149	109-77-3	Propanedinitrile	See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U171	79-46-9	Propane, 2-nitro- (I,T)	U213	109-99-9	Tetrahydrofuran (I)
U027	39638-32-9	Propane, 2,2'oxybis[2-chloro-	U214	563-68-8	Thallium(I) acetate
U193	1120-71-4	1,3-Propane sultone	U215	6533-73-9	Thallium(I) carbonate
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichloro- phenoxy)-	U216	7791-12-0	Thallium(I) chloride
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)	U216	7791-12-0	Thallium chloride TlCl
U140	78-83-1	1-Propanol, 2-methyl- (I,T)	U217	10102-45-1	Thallium(I) nitrate
U002	67-64-1	2-Propanone (I)	U218	62-55-5	Thioacetamide
U007	79-06-1	2-Propenamide	U153	74-93-1	Thiomethanol (I,T)
U084	542-75-6	1-Propene, 1,3-dichloro-	U244	137-26-8	Thioperoxydicarbonic diamide [(H(2)N)C(S)](2)S(2)tetramethyl-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	U219	62-56-6	Thiourea
U009	107-13-1	2-Propenenitrile	U244	137-26-8	Thiram
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)	U220	108-88-3	Toluene
U008	79-10-7	2-Propenoic acid (I)	U221	25376-45-8	Toluenediamine
U113	140-88-5	2-Propenoic acid, ethyl ester (I)	U223	26471-62-5	Toluene diisocyanate (R,T)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl	U328	95-53-4	o-Toluidine
U162	80-66-2	2-Propenoic acid, 2-methyl-, methyl ester (I,T)	U353	106-49-0	p-Toluidine ester
U194	107-10-8	n-Propylamine (I,T)	U222	636-21-5	o-Toluidine hydrochloride
U083	78-87-5	Propylene dichloride	U011	61-82-5	1H-1,2,4-Triazol-3-amine
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-	U227	79-00-5	1,1,2-Trichloroethane
U196	110-86-1	Pyridine	U228	79-01-6	Trichloroethylene
U191	109-06-8	Pyridine, 2-methyl-	U121	75-69-4	Trichloromonofluoromethane
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	See F027	95-95-4	2,4,5-Trichlorophenol
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro- 6-methyl-2-thioxo-	See F027	88-06-2	2,4,6-Trichlorophenol
U180	930-55-2	Pyrrolidine, 1-nitroso-	U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U200	50-55-5	Reserpine	U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U201	108-46-3	Resorcinol	U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U202	[1]81-07-2	Saccharin, and salts	U236	72-57-1	Trypan blue
U203	94-59-7	Safrole	U237	66-75-1	Uracil mustard
U204	7783-00-8	Selenious acid	U176	759-73-9	Urea, N-ethyl-N-nitroso-
U204	7783-00-8	Selenium dioxide	U177	684-93-5	Urea, N-methyl-N-nitroso
U205	7488-56-4	Selenium sulfide	U043	75-01-4	Vinyl chloride
U205	7488-56-4	Selenium sulfide SeS(2) (R,T)	U248	[1]81-81-2	Warfarin, when present at concentrations of 0.3% or less
U015	115-02-6	L-Serine, diazoacetate (ester)	U239	1330-20-7	Xylene (1)
See F027	93-72-1	Silvex (2,4,5-TP)	U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-tri- methoxybenzoyl)oxy]-, methyl ester, (3beta, 16beta, 17alpha, 18beta, 20alpha)-
U206	8883-66-4	Streptozotocin	U249	1314-84-7	Zinc phosphide, Zn(3)P(2), when present at concentrations of 10% or less.
U103	77-78-1	Sulfuric acid, dimethyl ester			
U189	1314-80-3	Sulfur phosphide (R)			
See F027	93-76-5	2,4,5-T			
U207	95-94-3	1,2,4,5-Tetrachlorobenzene			

[1] CAS Number for parent compounds only

