

# **Hazardous Waste Listings**

A User-Friendly Reference Document

DRAFT  
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## Introduction

This document describes the Environmental Protection Agency's (EPA's) hazardous waste listing regulations under the authority of the Resource Conservation and Recovery Act (RCRA) Subtitle C<sup>1</sup> and includes hyperlinks to information that EPA has generated over the years to explain the listing regulations. The objective of this document is to consolidate and streamline the information on listing regulations to help Environmental Protection Agency (EPA) staff, state staff, industrial facilities, and the public understand hazardous waste listing regulations.

This document is only a reference document and is not to be used as a substitute for the Code of Federal Regulations (CFR), itself, or the requirements contained in the CFR. This document is not a rulemaking. Additionally, this document only describes wastes that are considered listed hazardous wastes under the federal regulations. Most states are authorized to manage their own hazardous waste identification program. Therefore, states may have their own set of regulations that apply in lieu of federal regulations, and while most state hazardous waste regulations are based on the federal requirements, some states have developed regulations more stringent than the federal program. We direct you to the following website to determine if the state regulatory program is different from the federal program:  
<http://www.epa.gov/epaoswer/osw/stateweb.htm>

This document is organized in a manner similar to the way identification and listing of hazardous waste regulations are presented in [Title 40 of the CFR at Part 261](#). Therefore, following an overview of the hazardous waste identification process, this document will present the four different lists under the RCRA regulations that describe the listed hazardous wastes. At the conclusion of this document, a procedure under the regulations to delist a waste is also described.

Please note that the [Title 40 of the CFR at Part 261](#) information contained in this document is from the Government Printing Office's Electronic Code of Federal Register (e-CFR) website as it existed in May 2007. To help stakeholders better understand specific requirements, we also have provided, where applicable, hyperlinks to Federal Register notices, frequently asked questions (FAQs), letters, and memoranda issued by EPA, as well as guidance documents developed by EPA that help in understanding the hazardous waste listing regulations. The hyperlinks included in this document for Federal Register notices published prior to October 1994 are from HeinOnline and are available by subscription to HeinOnline. By including this material, EPA does not endorse HeinOnline. We have attempted to identify the relevant FAQs, letters, memoranda, etc. on a particular listing-related subject. However, please note that it is possible that not every document developed over the years has been included in this reference document. Finally, once you have navigated to the regulatory "requirement" of interest, we have provided hyperlinks to the [e-CFR](#) website if the listing regulations cross-reference other relevant regulations.

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<sup>1</sup> Subtitle C of RCRA has been codified in the United States Code (U.S.C.) as the Solid Waste Disposal Act (SDWA), Subchapter III (Hazardous Waste Management), 42 U.S.C. §§ 6921 through 6939e

Because regulations are promulgated throughout the year, EPA intends to update this document periodically to remain up-to-date with hazardous waste listing regulations. Additionally, the Government Printing Office (GPO) frequently updates the [e-CFR](#) website to which this document is linked.

### **Information on how to navigate through the document**

This document is navigable in several ways. First, stakeholders can use the Summary Chart on page eight to link directly to specific sections of the regulatory requirements for identification and listing of hazardous waste in the ([e-CFR](#)). The hyperlinks in the chart can be opened to the e-CFR by left-clicking on the mouse. Second, the pages on the Table of Contents can be opened in the same manner as described above to navigate through the body of the document. In addition, when the listing regulations cross-reference themselves or other regulations, there are hyperlinks to the [e-CFR](#) website which can be opened. The information contained in this website is current as of the date shown on the opened page. Finally, hyperlinks are contained within the lists of hazardous wastes following groupings of these wastes and can be opened to obtain further information on these wastes.

### **Contact Information**

This document was developed by the Hazardous Waste Identification Division in the Office of Solid Waste. Please send any questions concerning this document to the following email address: [chaudhari.narendra@epa.gov](mailto:chaudhari.narendra@epa.gov).

## Overview of the Hazardous Waste Identification Process

EPA's regulations establish two ways of identifying solid wastes as hazardous under RCRA. A waste may be considered hazardous if it exhibits certain hazardous properties (“characteristics”) or if it is included on a specific list of wastes EPA has determined are hazardous (“listing” a waste as hazardous) because we found them to pose substantial present or potential hazards to human health or the environment. EPA's regulations in the Code of Federal Regulations ([40 CFR](#)) define four hazardous waste characteristic properties: ignitability, corrosivity, reactivity, or toxicity (see [40 CFR 261.21-261.24](#)). This document presents the regulations developed that list wastes as hazardous in §§ [261.31](#) through [261.33](#). EPA plans to develop a separate document for characteristic wastes.

In order to list wastes EPA conducts a more specific assessment of a particular waste or category of wastes. The Agency will “list” them if they meet criteria set out in [40 CFR 261.11](#). As described in §[261.11](#), we may list a waste as hazardous if the waste:

--exhibits any of the characteristics, i.e., ignitability, corrosivity, reactivity, or toxicity ([§261.11\(a\)\(1\)](#));

--is “acutely” hazardous (e.g., if it is fatal to humans or animals at low doses, [§261.11\(a\)\(2\)](#)); or

--it contains any of the toxic constituents listed in 40 CFR part 261, Appendix VIII and, after consideration of various factors described in the regulation, is capable of posing a “substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed” ([§261.11\(a\)\(3\)](#)).

We place a substance on the list of hazardous constituents in Appendix VIII if scientific studies have shown the substance has toxic effects on humans or other life forms.

## Lists of Hazardous Wastes

There are four different lists of hazardous wastes that are located in [Title 40 of the CFR at Part 261](#). These four lists are:

- **The F list (non-specific source wastes)** - The F list designates as hazardous particular solid wastes from certain industrial or manufacturing processes. Because the processes producing these wastes can occur in different sectors of industry, the F list wastes are known as wastes from nonspecific sources. Wastes included on the F list are found in the regulations at [40 CFR § 261.31](#).
- **The K list (source-specific wastes)** - The K list designates particular solid wastes from certain specific industries as hazardous. Wastes included on the K list are found in the regulations at [40 CFR § 261.32](#).

- **The P list and the U list (discarded commercial chemical products)** - These two lists are similar in that both list as hazardous certain commercial chemical products when they are discarded or intended to be discarded. These listings consist of commercial chemical products having the generic names listed, off-specification species, container residues, and spill residues. The difference is that the chemicals on the P list are identified as acute hazardous wastes and those on the U list are identified as toxic wastes. Some chemicals on both lists may also be designated to have other properties. Wastes included on the P and U lists can be found in the regulations at [40 CFR § 261.33](#).

The above four lists each designate anywhere from 30 to a few hundred wastestreams as hazardous. Each waste on the lists is assigned a waste code consisting of the letter associated with the list followed by three numbers. For example, the wastes on the F list are assigned the waste codes F001, F002, and so on. These waste codes are an important part of the RCRA regulatory system. Assigning the correct waste code to a waste has important implications for the management standards that apply to the waste.

The wastes listed on the F and K lists described above can be divided further into subgroups as described below:

### **F Waste Groupings**

It may be helpful to consider that the F list wastes are divided into seven subgroups, generally depending on the type of manufacturing or industrial operation that creates them. The seven general subgroups of F-listed wastes are:

- spent solvent wastes (F001 - F005)
- wastes from electroplating and other metal finishing operations (F006 - F012, and F019)
- dioxin bearing wastes (F020 - F023 and F026 - F028)
- wastes from production of certain chlorinated aliphatic hydrocarbons (F024 and F025)
- wastes from wood preserving (F032, F034, and F035)
- petroleum refinery wastewater treatment sludges (F037 and F038)
- multisource leachate (F039)

### **K Waste Groupings**

The K are divided into 13 subgroups of wastes from specific sources. The 13 subgroups of K-listed wastes are:

- wood preservation (K001)
- inorganic pigment manufacturing (K002 - K008)
- organic chemicals manufacturing (K009 - K011, K013 - K030, K083, K085, K093 - K096, K103 - K105, K107 - K118, K136, K149 - K151, K156 - K159, K161,

- K174 - K175, and K181)
- inorganic chemicals manufacturing (K071, K073, K106, and K176 - K178)
  - pesticides manufacturing (K031 - K043, K097 - K099, K123 - K126, and K131 - K132)
  - explosives manufacturing (K044 - K047)
  - petroleum refining (K048 - K052, and K169 - K172)
  - iron and steel production (K061 and K062)
  - primary aluminum production (K088)
  - secondary lead processing (K069 and K100)
  - veterinary pharmaceuticals manufacturing (K084 and K101 - K102)
  - ink formulation (K086)
  - coking (K060, K141 - K145, and K147 - K148)

## Summary Chart

### Links to Specific Sections of the CFR on Listing of Hazardous Waste

<b>1</b>	Criteria for Listing Hazardous Waste	See 40 CFR <a href="#">261.11</a>
<b>2</b>	Lists of Hazardous Waste - General	See 40 CFR <a href="#">261.30</a>
<b>3</b>	Hazardous Wastes from Non-specific Sources	See 40 CFR <a href="#">261.31</a>
<b>4</b>	Hazardous Wastes from Specific Sources	See 40 CFR <a href="#">261.32</a>
<b>5</b>	Discarded Commercial Chemical Products, Off-specification species, Container Residues, and Spill Residues thereof	See 40 CFR <a href="#">261.33</a>



## General Hazardous Waste Listing Resources

- Electronic Code of Federal Regulations containing all EPA regulations  
[e-CFR: Title 40 -- Protection of Environment \(Parts 1-799\)](#)
- Hazardous waste web page on the EPA website  
[Hazardous Waste](#)
- Training documents for RCRA on the EPA website  
[RCRA Training Modules](#)
- Federal Register notices on the Environment since October 1994 on the EPA website  
[Federal Register Notices](#)
- Training document on hazardous waste identification  
[Introduction to Hazardous Waste Identification](#)
- Website to find dockets containing background documents for F and K lists of wastes  
<http://www.regulations.gov/fdmspublic/component/main>

On this website, enter identification number “EPA-HQ-RCRA-2004-0016” to search background documents for the F list wastes and enter identification number “EPA-HQ-RCRA-2004-0017” to search background documents for the K list wastes.

- Website for RCRA Frequent Questions Database  
[http://waste.custhelp.com/cgi-bin/waste.cfg/php/enduser/std\\_alp.php](http://waste.custhelp.com/cgi-bin/waste.cfg/php/enduser/std_alp.php)

### Some Important Federal Register Notices for the F, K, P, and U Listings

The following are some early federal register notices that laid the foundation for the hazardous waste listing program. Other federal register notices related to the specific listings are provided in the body of the document under those listings.

- Proposed Rule – Hazardous Waste Guidelines and Regulations  
[43 FR 58946; December 18, 1978](#)
- Supplemental Proposed Rule – Hazardous Waste Guidelines and Regulations  
[44 FR 49402; August 22, 1979](#)
- Final Rule and Interim Final Rule – First rule on identification and listings of hazardous wastes  
[45 FR 33084; May 19, 1980](#)
- Interim Final Rule amending the May 19, 1980 rule (eighteen additional wastes are listed as hazardous)

[45 FR 47832; July 16, 1980](#)

- Final Rule and Interim Final Rule - Listings of eighty hazardous wastes from specific and nonspecific sources

[45 FR 74884; November 12, 1980](#)

- Final Rule - Commercial chemical products, off-specification products, and intermediates

[45 FR 78532; November 25, 1980](#)

- Final Rule and Temporary Suspension of Interim Final Rule - Listings for thirteen wastes from specific sources (K Wastes)

[46 FR 4614; January 16, 1981](#)

## **Title 40: Protection of Environment**

### **PART 261-IDENTIFICATION AND LISTING OF HAZARDOUS WASTE**

#### **§ 261.11 Criteria for listing hazardous waste.**

(a) The Administrator shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

(1) It exhibits any of the characteristics of hazardous waste identified in subpart C.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. (Waste listed in accordance with these criteria will be designated Acute Hazardous Waste.)

(3) It contains any of the toxic constituents listed in [appendix VIII](#) and, after considering the following factors, the Administrator concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent.

(ii) The concentration of the constituent in the waste.

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in paragraph (a)(3)(vii) of this section.

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

(xi) Such other factors as may be appropriate.

Substances will be listed on [appendix VIII](#) only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms. (Wastes listed in accordance with these criteria will be designated Toxic wastes.)

(b) The Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in section 1004(5) of the Act.

(c) The Administrator will use the criteria for listing specified in this section to establish the exclusion limits referred to in § [261.5\(c\)](#).

[45 FR 33119, May 19, 1980, as amended at 55 FR 18726, May 4, 1990; 57 FR 14, Jan. 2, 1992]

## **Title 40: Protection of Environment**

### **[PART 261-IDENTIFICATION AND LISTING OF HAZARDOUS WASTE](#)**

## **Subpart D-List of Hazardous Wastes**

### **[§ 261.30 General.](#)**

(a) A solid waste is a hazardous waste if it is listed in this subpart, unless it has been excluded from this list under §§ [260.20](#) and [260.22](#).

(b) The Administrator will indicate his basis for listing the classes or types of wastes listed in this subpart by employing one or more of the following Hazard Codes:

Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
Toxicity Characteristic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

[Appendix VII](#) identifies the constituent which caused the Administrator to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in §§ [261.31](#) and [261.32](#).

(c) Each hazardous waste listed in this subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under parts [262](#) through [265](#), [268](#), and part [270](#) of this chapter.

(d) The following hazardous wastes listed in [§261.31](#) or [§261.32](#) are subject to the exclusion limits for acutely hazardous wastes established in [§ 261.5](#): EPA Hazardous Wastes Nos. FO20, FO21, FO22, FO23, FO26, and FO27.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14294, Apr. 1, 1983; 50 FR 2000, Jan. 14, 1985; 51 FR 40636, Nov. 7, 1986; 55 FR 11863, Mar. 29, 1990]

## § 261.31 Hazardous wastes from non-specific sources.

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§ [260.20](#) and [260.22](#) and listed in appendix IX.

### **Spent solvent wastes (F001 – F005)**

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
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.	(T)
F002.....	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-	(T)

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- (I)\*

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- (T)

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: (I,T)  
 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.

***Related Resources for F001 – F005 Wastes:***

**Federal Register Notice(s)**

- Final Rule (F001-F005)  
[45 FR 33084, MAY 19, 1980](#)
- Proposed clarification of the scope of the spent solvent listing  
[50 FR 18378; April 30, 1985](#)
- Proposed Rule amending the F002 and F005 Listings  
[50 FR 30908; July 30, 1985](#)
- Final clarification of the scope of the spent solvent listing  
[50 FR 53315; December 31, 1985](#)
- Final Rule amending the F002 and F005 listings  
[51 FR 6537; February 25, 1986](#)
- Clarification of RCRA rules for spent CFCs  
[54 FR 31335; July 28, 1989](#)

**Letters/Memoranda**

- F001: [SOLVENTS USED AS COOLANTS AND APPLICABILITY OF SOLVENT LISTINGS](#)
- F001 & F002: [DISCARDED WASTEWATER AT A CORROSION CONTROL FACILITY](#)

- F001 & F002: [CHLOROFLUOROCARBONS \(CFCS\) AS REFRIGERANTS, RECYCLING OF SPENT](#)
- F001 – F005: [REGULATORY STATUS OF WASTE GENERATED BY MCLAUGHLIN GORMLEY KING \(MGK\) COMPANY IN MINNESOTA](#)
- F001 – F005: [WASTE GENERATED DURING THE MANUFACTURE OF POLYURETHANE FOAM](#)
- F001 – F005: [REGULATORY DETERMINATION - SPENT SOLVENT LISTINGS AND THE MIXTURE RULE](#)
- F001 – F005: [RESIDUALS MATERIALS CONTAMINATED WITH TRACE SOLVENTS](#)
- [REGULATORY STATUS OF SOLVENT-CONTAMINATED RAGS AND WIPERS](#)
- F001 – F005: [CLARIFICATION OF SPENT SOLVENT LISTINGS](#)
- F001 - F005: [PAINT SPRAY BOOTH AIR FILTERS](#)
- F001 – F005: [CHLOROFLUOROCARBONS \(CFCS\) FROM PRODUCTION OF FOAM PRODUCTS](#)
- F001 – F005: [TETRACHLOROETHYLENE CONTAMINATED WITH POLYCHLORINATED BIPHENYLS \(PCBS\)](#)
- F001 – F005: [1,1,1-TRICHLOROETHANE CONTAINED IN A SAND-METAL-SOLVENT MIXTURE](#)
- F001 – F005: [SOLVENT AND COMMERCIAL CHEMICAL PRODUCT WASTE STREAMS](#)
- F001 – F005: [WASTE SOLVENT-BASED GLUE](#)
- F001 – F005: [SOLVENT-CONTAMINATED WASTESTREAMS FROM A PHARMACEUTICAL MANUFACTURER; SOLVENT-CONTAMINATED WASTESTREAMS FROM PHARMACEUTICAL MANUFACTURER](#)
- F001 – F005: [PAINT FILTERS, USED](#)
- F001 – F005: [PAINTS CONTAINING SOLVENTS](#)
- F001 – F005: [SOLVENT/MIXTURE BLENDS](#)
- F001 – F005: [PROCESS WASTEWATER FROM METAL DEGREASING OPERATIONS](#)
- F001 – F005: [WASTES CONTAINING F001-F005 CONSTITUENTS](#)
- F001 – F005: [RESIDUALS FROM TREATMENT OF RESTRICTED WASTES NOT COVERED BY LESS-THAN-1% SOLVENT EXTENSION](#)
- F001 – F005: [SOLVENT LISTINGS FOR PAINT WASTES/REMOVER AND SPILL RESIDUE](#)
- F001 – F005: [SOLVENTS USED AS REACTANT AND SOLVENT WASTES GENERATED BY A PRODUCTION PROCESS](#)
- F001 – F005: [SOLVENT LISTINGS, SCOPE OF](#)
- F001 – F005 : [SOLVENT LISTINGS, SCOPE OF](#)
- F001 – F005: [APPLICABILITY OF THE F006 CLASSIFICATION TO WASTES FROM THE CHEMICAL ETCHING OF MAGNESIUM](#)
- F002: [DRYCLEANING INDUSTRY WASTES](#)
- F002: [HAZARDOUS WASTE DETERMINATION](#)
- F002: [SPENT SOLVENT LISTINGS & LEACHATE FROM SANITARY LFS THAT RECEIVED HAZARDOUS WASTE](#)
- F002: [PAINTING CONTRACTOR WASTES-SMALL QUANTITY GENERATOR](#)
- F003: [CLARIFICATION OF THE NEW MIXTURE AND DERIVED-FROM RULES FOR F003](#)
- F003: [CLARIFICATION OF THE ""CONTAINED-IN"" POLICY](#)
- F003: [CLASSIFICATION OF F003 WASTES](#)
- F003: [ACETONE AND METHANOL CONTAMINATED WASHWATERS](#)
- F003: [REACTOR VESSEL WASHOUT CONTAINING TRACE AMOUNTS OF SOLVENT](#)
- [CAUSTIC RINSING METAL PARTS](#)
- F003: [F003 10% RULE AND ASSOCIATED REGULATIONS](#)
- F003: [PAINT WASTES AND THE SPENT SOLVENT LISTINGS](#)
- [PROCESS WASTES CONTAINING INKS, PAINTS, AND ADHESIVES](#)
- F003: [MIXTURES OF SOLID AND HAZARDOUS WASTES](#)
- F003: [DILUTION OF F003 WASTES](#)



- F003 & F005: [RCRA ARAR DETERMINATION AT MAXEY FLATS SUPERFUND SITE](#)
- F005: [IDENTIFICATION OF SPENT SOLVENT IN CERTAIN INDUSTRIAL PROCESSES](#)
- F005: [STILL BOTTOM WASTE GENERATED DURING THE PRODUCTION OF POLYSTYRENE](#)
- F005: [STILL BOTTOM WASTE GENERATED BY A POLYSTYRENE PRODUCTION FACILITY](#)
- F005: [TOLUENE-LADEN FILTER RESIDUE GENERATED FROM AN INK PRODUCTION PROCESS](#)
- [CLASSIFICATION OF SOLVENTS ADDED](#)
- [SCOPE OF SPENT SOLVENT LISTINGS](#)
- [SPENT PIPELINE FILTER CARTRIDGES](#)
- [TOLUENE-CONTAINING PAINT PRODUCTS FROM WOOD PIECES, REGULATORY STATUS](#)
- [IRON CAKE WASTE GENERATED DURING THE PRODUCTION OF METHYLDOPA](#)
- [PRE-COAT WASTE CONTAINING 2-ETHOXYETHANOL \(EXTRUDING PROCESS WASTE\)](#)
- [WASTES GENERATED IN A PROCESS USING METHYLENE CHLORIDE TO RECOVER ALKALOIDS FROM PLANT MATTER; WASTES GENERATED FROM EXTRACTION PROCESS](#)
- [ACTIVATED CARBON CANISTERS USED TO COLLECT SOLVENT VAPORS GENERATED DURING PAINT APPLICATION](#)
- [CLARIFICATION ON THE USE OF SOLVENTS AS REACTANTS IN MANUFACTURING PROCESSES](#)

### **Fact Sheets and Q&As**

- Q&A (F001): [HYDROCHLOROFLUOROCARBONS USED IN DEGREASING](#)
- Q&A (F001): [SOLVENT DRIPPINGS FROM DEGREASING OPERATIONS](#)
- Q&A (F001 & F002): [PERCHLOROETHYLENE USED IN DRY CLEANING](#)
- Q&A (F001 & F002): [COMPARATIVE DEFINITIONS OF F001 AND F002](#)
- Q&A (F001 – F005): [DEFINITION OF SPENT SOLVENT](#)
- Q&A (F001 – F005): [HAZARDOUS WASTE I.D.](#)
- Q&A (F001 – F005): [USE AS INGREDIENT NOT WITHIN SOLVENT LISTING](#)
- Q&A (F001 – F005): [THE SOLVENT MIXTURE RULE](#)
- Q&A (F002): [SPENT SOLVENTS](#)
- Q&A (F002): [CARBON FILTERS IN DRY CLEANING FOR FILTERING PERCHLOROETHYLENE](#)
- Q&A (F002): [CLARIFICATION OF SPENT SOLVENT LISTING](#)
- Q&A (F003): [INTERSTATE SHIPMENTS OF WASTE LISTED SOLELY FOR IGNITABILITY, CORROSIVITY, OR REACTIVITY](#)
- Q&A (F003): [F003 WASTES GENERATED PRIOR TO HWIR WASTE RULE](#)
- Q&A (F003): [TECHNICAL GRADE SOLVENT FORMULATIONS AND THE F003 LISTING](#)
- Q&A (F003): [SPENT SOLVENTS IN SCINTILLATION COCKTAILS](#)
- Q&A (F003): [SPENT SOLVENT MIXTURES](#)
- Q&A (F003 & F005): [SOLVENT MIXTURE RULE](#)
- Q&A (F005): [WASTE CLASSIFIED AS BOTH F005 AND K086](#)
- Q&A (F005): [SMALL QUANTITY GENERATOR DETERMINATION](#)
- Q&A: [SPENT SOLVENT LISTINGS](#)
- Q&A: [WOULD HAZARDOUS WASTE LISTINGS APPLY TO THE REMAINING SOLVENT \(E.G., PAINT THINNER\) REMOVED FROM SPRAY CANS?](#)
- Q&A: [DO THE SPENT SOLVENT LISTINGS IN §261.31 APPLY TO SOLVENT CONSTITUENTS USED AS INGREDIENTS IN THE FORMULATION OF A COMMERCIAL CHEMICAL PRODUCT \(CCP\)?](#)

**Wastes from electroplating and other metal finishing operations  
(F006 - F012, and F019)**

F006.....	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc- aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F007.....	Spent cyanide plating bath solutions from electroplating operations.	(R, T)
F008.....	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009.....	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010.....	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)
F011.....	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012.....	Quenching waste water treatment sludges from metal heat treating operations where	(T)

F019..... cyanides are used in the process.  
Wastewater treatment (T)  
sludges from the  
chemical conversion  
coating of aluminum  
except from zirconium  
phosphating in aluminum  
can washing when such  
phosphating is an  
exclusive conversion  
coating process.

***Related Resources for F006 – F012 and F019 Wastes:***

**Federal Register Notice(s)**

- Final Rule (F006 & F019 and F007 – F012)  
[45 FR 33084, MAY 19, 1980](#)
- Interpretive Rule (F006)  
[51 FR 43350, DECEMBER 2, 1986](#)
- Proposed Rule – Amendment to the F019 Listing (exclusion for sludges generated from the zirconium phosphating process)  
[54FR 32320; August 4, 1989](#)
- Final Rule – Amendment to the F019 Listing (exclusion for sludges generated from the zirconium phosphating process)  
[55FR 5340; February 14, 1990](#)

**Letters/Memoranda**

- F006: [APPLICABILITY OF THE F006 CLASSIFICATION TO WASTES FROM THE CHEMICAL ETCHING OF MAGNESIUM](#)
- F006: [GENERATOR QUANTITY DETERMINATIONS FOR F006 LISTED SLUDGE](#)
- F006: [ELECTROPLATING WASTEWATER TREATMENT SLUDGES FROM GRAY CAST IRON MANUFACTURING OPERATIONS](#)
- F006: [STEEL PLATING PROCESS AND F006 DEFINITION](#)
- F006: [REGULATORY STATUS OF ION EXCHANGE RESIN WASTE](#)
- F006: [JURISDICTIONAL STATUS UNDER THE RCRA OF CERTAIN METAL-RICH SLUDGES](#)
- F006: [RESPONSE TO PETITION ON PROHIBITION OF USE OF SLAG FROM HIGH TEMPERATURE METALS RECOVERY AS ANTI-SKID/DEICING AGENT](#)
- F006: [ELEMENTARY NEUTRALIZATION UNITS GENERATING AND STORING NON-CORROSIVE HAZARDOUS WASTES](#)
- F006: [APPLICABILITY OF F006 HAZARDOUS WASTE CODE TO NICKEL RECLAMATION PROCESS FOR ELECTROLESS NICKEL PLATING SPENT SOLUTIONS](#)
- F006: [CLASSIFICATION OF WASTEWATER TREATMENT SLUDGE FROM THE REVISED ""ZINC-COBALT ALLOY PLATING ON CARBON STEEL"" PROCESS](#)
- F006: [REGULATORY INTERPRETATION FOR ION EXCHANGE RESIN USED FOR WATER REUSE ON ELECTROPLATING WASTEWATERS](#)

- F006: [REGULATORY INTERPRETATION REGARDING PHOTORESIST SOLIDS \("SKINS"\) GENERATED IN THE PRINTED CIRCUIT BOARD MANUFACTURING INDUSTRY](#)
- F006: [REQUEST FOR ASSISTANCE REGARDING F006 DETERMINATION AT THE EAGLE-PICHER COLORADO SPRINGS, COLORADO FACILITY](#)
- F006: [CHEMICAL ETCHING PROCESS-HAZARDOUS WASTE IDENTIFICATION](#)
- F006: [WASTEWATER TREATMENT SLUDGES RESULTING FROM METAL CLEANING PROCESS](#)
- F006: [GENERATOR TREATMENT OF F006 ELECTROPLATING SLUDGE](#)
- F006: [F006 LISTING FOR PICKLING AND ETCHING WASTES AND DELISTING ISSUES](#)
- F006: [INTERPRETATION OF THE F006 LISTING RELATIVE TO COLLIS, INC., CLINTON, IOWA](#)
- F006: [WASTES FROM BRIGHT DIPPING UNDER THE REINTERPRETED F006 LISTING](#)
- F006: [F006 LISTING DOES NOT INCLUDE ZINC PHOSPHATING WASTEWATER TREATMENT SLUDGES](#)
- F006: [ELECTROLESS ZINC PLATING WASTE NOT IN F006 LISTING](#)
- F006: [F006 LISTING APPLIED TO PRINTING INDUSTRY](#)
- F006: [WASTES FROM ZINC PLATING \(SEGREGATED BASIS\) ON CARBON STEEL EXCLUDED FROM F006](#)
- F006: [SPENT ION EXCHANGE RESINS AND FILTER AS HAZARDOUS WASTE](#)
- F006: [APPLICABILITY OF F006 LISTING TO BRIGHT-DIPPING OPERATIONS](#)
- F006: [WASTES FROM ELECTROSTATIC WATERFALL CURTAIN PAINTING OPERATIONS](#)
- F006: [ELECTROCHEMICAL MACHINING WASTES AND THE SCOPE OF THE F006 LISTING](#)
- F006: [WASTE LISTINGS F006 AND K062, SCOPE OF](#)
- F006: [HEAT TREATING OPERATIONS AND THE F006 LISTING](#)
- F006: [SPENT ION EXCHANGE RESIN](#)
- F006: [APPLICABILITY OF F006 V. K062 TO GALVANIZING WASTES](#)
- F006: [WASTEWATER TREATMENT EFFLUENT FROM PROCESSES THAT GENERATE K001 AND F006 WASTEWATER TREATMENT SLUDGE](#)
- F006: [MECHANICAL PLATING WASTES IN THE F006 LISTING, NON-INCLUSION OF](#)
- F006 – F009: [TANK TREATMENT PROCESSES](#)
- F006 – F009: [IMMERSION PLATING WASTEWATERS-BRONZE PLATING](#)
- F006 – F009: [METAL FINISHING SLUDGES](#)
- F006 & F009: [F009 LISTING AND THE MIXTURE RULE TO ELECTROPLATING RINSEWATERS AND RESINS: ELECTROPLATING RINSEWATERS](#)
- F006, F007, & F009: [REGULATORY STATUS OF ELECTROPLATING RINSEWATER CONTAINING CYANIDES](#)
- F006, F012, & F019: [SLUDGES FROM WASTEWATER MIXTURES](#)
- F007: [DRAGOUT FROM F007 - SPENT CYANIDE PLATING BATH SOLUTIONS](#)
- F007: [SPENT CYANIDE PLATING BATH SOLUTIONS FROM SILVER RECOVERY](#)
- F007 – F009: [ELECTROPLATING WASTES](#)
- F007 – F009: [ELECTROPLATING RINSEWATERS NOT IN F007-009 LISTINGS](#)
- F009: [WASTE FROM CHEMICAL ETCHING USING CYANIDE](#)
- F010 – F012: [CYANIDE-SALT CONTAINING WASTES IN METAL HEAT TREATING OPERATIONS](#)
- F019: [CHEMICAL CONVERSION OF ALUMINUM AND WHETHER WASTEWATER TREATMENT SLUDGE GENERATED IS CONSIDERED AN F019 HAZARDOUS WASTE](#)
- F019: [PETITION FOR EXCLUSION OF WESTERN WHEEL HOWELL F019 WASTE](#)
- F019: [REQUEST FOR CLARIFICATION ON F019 WASTE DETERMINATION](#)
- F019: [DELISTING PETITION - FUJI PHOTO FILM WASTEWATER TREATMENT SLUDGE](#)
- F019: [APPLICABILITY OF F019 LISTING TO WASTEWATER TREATMENT SLUDGE FROM THE TIN COATING OF ALUMINUM](#)

- F019: [ZIRCONIUM PHOSPHATING SLUDGES EXEMPTION](#)
- F019: [MARTIN MARIETTA - F019 WASTE LISTING DETERMINATION](#)
- F019: [WASTEWATER TREATMENT SLUDGE EXEMPTION FOR ANODIZING OF ALUMINUM](#)
- [INDUSTRIAL PLATING OPERATIONS, STATUS OF VARIOUS WASTES FROM](#)
- [APPLICABILITY OF SOLVENT AND ELECTROPLATING LISTINGS](#)

**Fact Sheets and Q&As**

- FACT SHEET (F006): [ENVIRONMENTAL FACT SHEET: FINAL RULE PROMOTES METALS RECOVERY FROM WASTE WATER TREATMENT SLUDGE \(F006\)](#)
- FACT SHEET (F006): [ENVIRONMENTAL FACT SHEET: CERTAIN HAZARDOUS WASTE SLAG USES NOW SUBJECT TO REGULATION](#)
- Q&A (F006): [AIR EMISSIONS FROM ELECTROPLATING OPERATIONS](#)
- Q&A (F006): [F006](#)
- Q&A (F006): [STORAGE OF WASTEWATER TREATMENT SLUDGE](#)
- Q&A (F006): [WASTEWATER TREATMENT SLUDGE FROM ETCHING SEMICONDUCTOR SILICON WAFERS](#)
- Q&A (F006): [THE HAZARDOUS WASTE LISTING FOR F006 INCLUDES WASTEWATER TREATMENT SLUDGE FROM ELECTROPLATING OPERATIONS. WHAT TYPES OF ELECTROPLATING OPERATIONS ARE INCLUDED IN THIS LISTING?](#)
- Q&A (F006): [IF ELECTROPLATING WASTEWATER IS TREATED, RENDERED NONHAZARDOUS, AND THEN STORED, DOES SLUDGE RESULTING FROM THAT NONHAZARDOUS WASTEWATER STORAGE CARRY AN ELECTROPLATING WASTE LISTING?](#)
- Q&A (F006): [DOES THE F006 LISTING APPLY TO COPPER ELECTROPLATING?](#)
- Q&A (F006 – F009): [CLARIFICATION OF ELECTROPLATING LISTINGS](#)
- Q&A (F007 & F009): [CONTAMINATED ELECTROPLATING RINSEWATERS](#)
- Q&A (F009): [APPLICABILITY OF F009 LISTING TO CLEANING TANK SLUDGE](#)
- Q&A (F009): [CLARIFICATION OF THE F009 LISTING](#)Q&A (F019): [CLARIFICATION OF F019 LISTING AND APPLICABILITY TO OTHER WASTEWATER TREATMENT SLUDGES](#)
- Q&A (F019): [WHY IS EPA CONSIDERING THE POSSIBILITY OF REVISING THE F019 HAZARDOUS WASTE LISTING?](#)
- Q&A (F019): [WHAT RCRA HAZARDOUS WASTE CODE WOULD APPLY TO SOIL CONTAMINATED WITH CYANIDE?](#)
- Q&A (F019): [WHAT IS F019?](#)
- Q&A (F019): [WHAT IS CONVERSION COATING?](#)

***Dioxin bearing wastes (F020 - F023, and F026 – F028)***

F020..... Wastes (except wastewater (H) and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or

	tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).	
F021.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).	(H)
F026.....	Wastes (except wastewater	(H)

	and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	
F027.....	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.).	(H)
F028.....	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.	(T)

***Related Resources for F020 – F023 and F026 – F028 Wastes:***

**Federal Register Notice(s)**

- Proposed Rule (F020-F023 and F026-F028)  
[48 FR 14514; April 4, 1983](#)
- Final Rule (F020-F023 and F026-F028)  
[50 FR 1978; January 14, 1985](#)

**Letters/Memoranda**

- F020: [REFRACTORY WASTES AT U.S. EPA COMBUSTION RESEARCH FACILITY](#)
- F020 & F023: [WASTES COVERED UNDER THE DIOXIN LISTING](#)
- F020 – F023, F026 & F027: [LABORATORY WASTES \(INCLUDING CARCASSES, BEDDING, CAGES\) CONTAINING DIOXIN](#)

- F020 – F023 and F026 – F028: [CLARIFICATION ON WHAT CONSTITUTES DIOXIN RELATED MATERIALS](#)
- F020 – F023 and F026 – F028: [INCINERATION OF LABORATORY WASTES CONTAMINATED WITH TCDD](#)
- F020 – F023 and F026 – F028: [IMPLEMENTATION OF DIOXIN LISTING REGULATION](#)
- F020 – F023, F026, and F028: [DIOXIN STANDARD USED TO TEST GAS CHROMATOGRAPHY COLUMNS, HANDLING OF](#)
- F021: [WASTEWATERS EXCLUSION FROM THE DEFINITION OF F021 FOR PCP MANUFACTURE](#)
- F021: [REGULATORY STATS OF HYDROCHLORIC ACID CO-PRODUCT FROM PENTACHLOROPHENOL PRODUCTION](#)
- F021 & F027: [F021 LISTING FOR SUBSTANCES CONTAINING CHLOROPHENOLIC COMPOUNDS](#)
- F021 & F027: [REGULATORY STATUS OF VARIOUS TYPES OF PENTACHLOROPHENOL WASTES](#)
- F023: [CHLORINATED DIOXIN WASTES \(F023\)](#)
- F027: [F027 LISTING - USED AND UNUSED FORMULATIONS IN WOOD PRESERVING](#)
- F027: [SOIL CONTAMINATED WITH USED AND UNUSED PESTICIDES; SOIL CONTAMINATED WITH PESTICIDE](#)
- F027: [REGULATORY STATUS OF USED WOOD PRESERVATION CONTAINING PENTACHLOROPHENOL \(PCP\)](#)
- F027: [SPENT CARBON USED TO REMOVE DISSOLVED PENTACHLOROPHENOL \(PCP\) FROM GROUNDWATER](#)
- [DIOXIN IN WASTES FROM WOOD PRESERVING PROCESSES USING PENTACHLOROPHENOL](#)
- [FEDERAL POLICY REGARDING DIOXIN DISPOSAL](#)

### **Fact Sheets and Q&As**

- Q&A (F027): [UNUSED FORMULATIONS CONTAINING SODIUM PENTACHLOROPHENATE ARE F027](#)
- Q&A (F027): [UNUSED FORMULATIONS OF AGENT ORANGE](#)

### ***Wastes from production of certain chlorinated aliphatic hydrocarbons (F024 and F025)***

F024..... Process wastes, including (T) but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one



to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in § 261.31 or § 261.32.).

F025..... Condensed light ends, (T)  
 spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.

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***Related Resources for F024 and F025 Wastes:***

**Federal Register Notice(s)**

- Proposed Rule (F024-F025)  
[49 FR February 10, 1984](#)
  - Final Rule (F024-F025)  
[54 FR 50968; December 11, 1989](#)
- 

***Wastes from wood preserving (F032, F034 and F035)***

F032..... Wastewaters (except those (T)  
 that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that

currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with § 261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

F034..... Wastewaters (except those (T) that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

F035..... Wastewaters (except those (T) that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic

preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.

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***Related Resources for F032, F034 and F035 Wastes:***

**Federal Register Notice(s)**

- Proposed Rule (F032–F035)  
[53 FR 53282; December 30, 1988](#)
- Final Rule (F032 and F034-F035)  
[55 FR 50450; December 6, 1990](#)

**Letters/Memoranda**

- F032: [CLARIFICATION OF WOOD SURFACE PROTECTION AND WOOD PRESERVING DEFINITIONS](#)
- F032: [CLARIFICATION OF HAZARDOUS WASTE LISTINGS PERTAINING TO WOOD PRESERVING OPERATIONS](#)
- F032, F034, and F035: [SCOPE AND APPLICABILITY OF RCRA REGULATIONS AT WOOD PRESERVING FACILITIES](#)
- F032, F034, and F035: [CLARIFICATION OF REQUIREMENTS INVOLVING THE COUNTING OF WOOD PRESERVING WATERS FOR BIENNIAL REPORTING](#)
- F032, F034, and F035: [REGULATORY STATUS OF WOOD STICKERS USED FOR WOOD PRESERVING OPERATIONS](#)
- F032, F034, and F035: [DRIPPAGE IN WOOD PRESERVING STORAGE YARDS](#)

**Fact Sheets and Q&As**

- Q&A (F032, F034, and F035): [RECLAIMED SPENT WOOD PRESERVATIVE EXCLUSION IN 40 CFR §261.4\(A\)\(9\)](#)
  - Q&A (F032, F034, and F035): [ADMINISTRATIVE STAY FOR WOOD PRESERVING WASTES](#)
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***Petroleum refinery wastewater treatment sludges (F037 - F038)***

F037..... Petroleum refinery (T)  
primary oil/water/solids  
separation sludge. Any  
sludge generated from  
the gravitational  
separation of oil/water/  
solids during the

storage or treatment of process wastewaters and oil cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under § 261.4(a)(12)(i), if those residuals are to be disposed of..

F038..... Petroleum refinery (T)  
 secondary (emulsified)  
 oil/water/solids  
 separation sludge Any  
 sludge and/or float  
 generated from the  
 physical and/or chemical  
 separation of oil/water/  
 solids in process  
 wastewaters and oily

cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.

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***Related Resources for F037 and F038 Wastes:***

**Federal Register Notice(s)**

- Proposed Rule (F037-F038)  
[45 FR 74893; November 12, 1980](#)
- Final Rule (F037-F038)  
[55 FR 46354; November 2, 1990](#)

**Letters/Memoranda**

- F037 & F038: [APPLICABILITY OF THE “MIXTURE” RULE TO PETROLEUM REFINERY WASTEWATER SYSTEMS](#)
- F037 & F038: [DRAFT REGION VIII POLICY ON “AGGRESSIVE BIOLOGICAL TREATMENT”](#)

**Fact Sheets and Q&As**

- Q&A (F037 & F038): [PETROLEUM REFINERY WASTEWATER TREATMENT SLUDGE CLASSIFICATION](#)

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***Multisource leachate (F039)***

F039..... Leachate (liquids that (T)  
have percolated through  
land disposed wastes)  
resulting from the  
disposal of more than  
one restricted waste  
classified as hazardous  
under subpart D of this  
part. (Leachate  
resulting from the  
disposal of one or more  
of the following EPA  
Hazardous Wastes and no  
other Hazardous Wastes  
retains its EPA  
Hazardous Waste  
Number(s): F020, F021,  
F022, F026, F027, and/or  
F028.).

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***Related Resources for F039 Wastes:***

**Federal Register Notice(s)**

- Proposed Rule (F039); LDRs for third third scheduled wastes  
[54 FR 48372; November 22, 1989](#)
- Final Rule (F039); LDRs for third third scheduled wastes  
[55 FR 22520; June1, 1990](#)

**Letters/Memoranda**

- F039: [WASTE MINIMIZATION REQUIREMENTS OF SECTION 3002\(B\) OF RCRA FOR HAZARDOUS WASTE DISPOSAL FACILITIES](#)
- F039: [CAPACITY VARIANCES FOR UNDERGROUND INJECTION FACILITIES](#)
- F039: [MULTI-SOURCE LEACHATE AND TREATMENT STANDARDS OF LAND DISPOSAL RESTRICTIONS](#)

**Fact Sheets and Q&As**

- Q&A (F039): [MULTISOURCE LEACHATE \(F039\) WASTE CODE AS IT APPLIES TO CONTAMINATION FROM SPILLS](#)

- Q&A (F039): [CLASSIFICATION OF LEACHATE CONTAMINATED GROUND WATER](#)

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\*(I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.

[NOTE: The following language is continuation of § 261.31]

(b) Listing Specific Definitions: (1) For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.(2)

(i) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and (A) the units employ a minimum of 6 hp per million gallons of treatment volume; and either (B) the hydraulic retention time of the unit is no longer than 5 days; or (C) the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.

(ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other onsite records, documents and data sufficient to prove that: (A) the unit is an aggressive biological treatment unit as defined in this subsection; and (B) the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.

(3) (i) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

(ii) For the purposes of the F038 listing, (A) sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and (B) floats are considered to be generated at the moment they are formed in the top of the unit.

[46 FR 4617, Jan. 16, 1981]

**Editorial Note:** For Federal Register citations affecting [§261.31](#), see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

## **§ 261.32 Hazardous wastes from specific sources.**

(a)The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under §§[260.20](#) and [260.22](#) and listed in [appendix IX](#).

## Wood preservation (K001)

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Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Wood preservation: K001.....	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)

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### Related Resources for Wood Preservation Wastes:

#### Letters/Memoranda

- K001: [WOOD TREATED WITH CREOSOTE, DISPOSAL OF](#)
- K001: [K001-LISTED WASTES FROM WOOD PRESERVING PROCESSES](#)
- K001: [WASTEWATER TREATMENT EFFLUENT FROM PROCESSES THAT GENERATE K001 AND F006 WASTEWATER TREATMENT SLUDGE](#)
- K001: [CREOSOTE TREATED CROSS TIES, DISPOSAL OF, FIFRA INTERFACE](#)

#### Fact Sheets and Q&As

- Q&A (K001): [WASTEWATER FROM WOOD PRESERVING](#)
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## Inorganic pigment manufacturing (K002 – K008)

Inorganic pigments:

K002.....	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003.....	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004.....	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005.....	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006.....	Wastewater treatment sludge from the	(T)



	production of chrome oxide green pigments (anhydrous and hydrated).	
K007.....	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008.....	Oven residue from the production of chrome oxide green pigments.	(T)

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**Organic chemicals manufacturing (K009 – K011, K013 – K030, K083, K085, K093 – K096, K103 – K105, K107 – K118, K136, K149 – K151, K156 – K159, K161, K174 – K175, and K181)**

Organic chemicals:

K009.....	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010.....	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011.....	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013.....	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, T)
K014.....	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015.....	Still bottoms from the distillation of benzyl chloride.	(T)
K016.....	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017.....	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018.....	Heavy ends from the fractionation column in ethyl chloride production.	(T)

K019.....	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020.....	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021.....	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022.....	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)
K023.....	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024.....	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K025.....	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026.....	Stripping still tails from the production of methy ethyl pyridines.	(T)
K027.....	Centrifuge and distillation residues from toluene diisocyanate production.	(R, T)
K028.....	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029.....	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	(T)
K030.....	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083.....	Distillation bottoms from aniline production.	(T)
K085.....	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K093.....	Distillation light ends	(T)

	from the production of phthalic anhydride from ortho-xylene.	
K094.....	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K095.....	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096.....	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K103.....	Process residues from aniline extraction from the production of aniline.	(T)
K104.....	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K105.....	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107.....	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines.	(C,T)
K108.....	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109.....	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110.....	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111.....	Product washwaters from the production of	(C,T)

K112.....	dinitrotoluene via nitration of toluene. Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113.....	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114.....	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115.....	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116.....	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117.....	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118.....	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136.....	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K149.....	Distillation bottoms from the production of alpha-(or methyl-) chlorinated	(T)

	toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (This waste does not include still bottoms from the distillation of benzyl chloride.).	
K150.....	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K151.....	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K156.....	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.).	(T)
K157.....	Wastewaters (including scrubber waters, condenser waters, washwaters, and	(T)

	separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.).	
K158.....	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.).	(T)
K159.....	Organics from the treatment of thiocarbamate wastes.	(T)
K161.....	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.).	(R,T)
K174.....	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (i) they are disposed of in a subtitle C or non-hazardous landfill licensed or permitted by the state or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation	(T)

demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of subtitle C must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth above. In doing so, they must provide appropriate documentation (e.g., contracts between the generator and the landfill owner/operator, invoices documenting delivery of waste to landfill, etc.) that the terms of the exclusion were met.

- K175..... Wastewater treatment (T)  
                   sludges from the  
                   production of vinyl  
                   chloride monomer using  
                   mercuric chloride  
                   catalyst in an acetylene-  
                   based process.
- K181..... Nonwastewaters from the (T)  
                   production of dyes and/  
                   or pigments (including  
                   nonwastewaters  
                   commingled at the point  
                   of generation with  
                   nonwastewaters from  
                   other processes) that,  
                   at the point of  
                   generation, contain mass  
                   loadings of any of the  
                   constituents identified  
                   in paragraph (c) of this  
                   section that are equal

to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are:

- (i) disposed in a Subtitle D landfill unit subject to the design criteria in § 258.40, (ii) disposed in a Subtitle C landfill unit subject to either § 264.301 or § 265.301, (iii) disposed in other Subtitle D landfill units that meet the design criteria in § 258.40, § 264.301, or § 265.301, or (iv) treated in a combustion unit that is permitted under Subtitle C, or an onsite combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in paragraph (b)(1) of this section. Paragraph (d) of this section describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under §§ 261.21-261.24 and 261.31-261.33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.

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## *Related Resources for Organic Chemical Wastes:*

### **Federal Register Notice(s)**

- Proposed Rule (K107-K110)  
[49 FR 49556; December, 20, 1984](#)
- Supplement to Proposed Rule ( K107-K110)  
[54 FR 33942; August 17, 1989](#)
- Final Rule ( K107-K110)  
[55 FR 18496; May 2, 1990](#)
- Proposed Rule (K111 – K116)  
[49 FR 19608; May 8, 1984](#)
- Final Rule (K111 – K116)  
[50 FR 42936; October 23, 1985](#)
- Proposed Rule ( K117 – K118)  
[49 FR 44718; November 8, 1984](#)
- Final Rule (K117 – K118)  
[51 FR 5327; February 13, 1986](#)
- Proposed Rule (K149-K151)  
[56 FR 51592; October 11, 1991](#)
- Final Rule (K149-K151)  
[57 FR 47376; October 15, 1992](#)
- Proposed Rule (K156-K161)  
[59 FR 9808; March 1, 1994](#)
- Final Rule (K156-K161)  
[60 FR 7824; February 9, 1995](#)
- Proposed Rule (K149-K151)  
[56 FR 51592; October 11, 1991](#)
- Final Rule (K149-K151)  
[57 FR 47376; October 15, 1992](#)
- Proposed Rule (K156-K161)  
[59 FR 9808; March 1, 1994](#)
- Final Rule (K156-K161)  
[60 FR 7824; February 9, 1995](#)
- Interpretive Rule (K156 &K157)  
[Carbamate Listing 60FR 41817, August 14, 1995.](#)
- Listings for wastes from production of chlorinated aliphatics (K174-K175)  
[Rulemaking Information for K174-K175](#)
- Final Rule (K174 & K175)  
[65 FR 67068, November 8, 2000](#)
- Listing for waste from production of certain dyes and pigments (K181)  
[Rulemaking Information for K181](#)
- Final Rule (K181)  
[70 FR 9138, February 24, 2005](#)

## Letters/Memoranda

- K021: [APPLICABILITY OF K021 LISTING](#)
- K022: [DISTILLATION BOTTOM TARS AS K022 WASTE](#)
- K085: [THERMAL OXIDIZER AND HYDRODECHLORINATION PROCESS BY-PRODUCT K-WASTES](#)
- K156: [HAZARDOUS WASTE LISTING DETERMINATION \(60 FR 7825, FEBRUARY 9, 1995\) OF K156 WASTE FROM THE PRODUCTION OF METHYL CARBAMATE](#)
- K157: [EPA'S INTERPRETATION OF THE EXEMPTION IN 40 CFR 261.3\(A\)\(2\)\(IV\)\(F\), A NEW SECTION OF EPA'S REGULATIONS ON CARBAMATE LISTING RULE](#)
- K157: [THE MIXTURE RULE EXEMPTION FOR CARBAMATE WASTE](#)
- K161: [DITHIOCARBAMATE PRODUCTION AND SCOPE OF K171](#)

## Fact Sheets and Q&As

- FACT SHEET (K174 & K175): [CHLORINATED ALIPHATICS PRODUCTION WASTE](#)
- FACT SHEET (K181): [DYE AND PIGMENT PRODUCTION WASTE LISTED AS HAZARDOUS](#)
- Q&A (K105): [WASTES LISTED FOR CONTAINING CHLORINATED BENZENES](#)
- Q&A (K111): [HAZARDOUS WASTE IDENTIFICATION - K111 LISTING](#)
- Q&A (K181): [WHAT WASTES FROM THE PRODUCTION OF DYES AND PIGMENTS ARE COVERED BY THE K181 LISTING?](#)
- Q&A (K181): [WHAT EXEMPTIONS ARE INCLUDED IN THE DYES AND PIGMENTS LISTING?](#)
- Q&A (K181): [HOW CAN WASTE GENERATORS DEMONSTRATE THAT THEIR DYES AND PIGMENT WASTES ARE NOT HAZARDOUS?](#)

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## ***Inorganic chemicals manufacturing (K071, K073, K106, and K176 – K178)***

### Inorganic chemicals:

K071.....	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073.....	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)
K106.....	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)
K176.....	Baghouse filters from the production of antimony oxide, including filters	(E)

	from the production of intermediates (e.g., antimony metal or crude antimony oxide).	
K177.....	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide).	(T)
K178.....	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.	(T)

***Related Resources for Inorganic Chemical Wastes:***

**Federal Register Notice(s)**

- Listings for wastes from production of inorganic chemicals (K176-K178) [Rulemaking Information for K176-K178](#)
- Final rule for (K176- K178) [66 FR 58257, November 20, 2001](#)

**Fact Sheets and Q&As**

- FACT SHEET for K176, K177, & K178: [ENVIRONMENTAL FACT SHEET: THREE INORGANIC CHEMICALS NOW LISTED AS HAZARDOUS WASTE](#)
- OTHER INFORMATION FOR K176, K177, & K178 (EPA WEB SITE) <http://www.epa.gov/epaoswer/hazwaste/id/inorchem/fi2001.htm>

***Pesticides manufacturing (K031 – K043, K097 – K099, K123 – K126, and K131 – K132)***

Pesticides:

K031.....	By-product salts generated in the production of MSMA and	(T)
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	cacodylic acid.	
K032.....	Wastewater treatment sludge from the production of chlordane.	(T)
K033.....	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034.....	Filter solids from the filtration of hexachlorocyclopentadien e in the production of chlordane.	(T)
K035.....	Wastewater treatment sludges generated in the production of creosote.	(T)
K036.....	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037.....	Wastewater treatment sludges from the production of disulfoton.	(T)
K038.....	Wastewater from the washing and stripping of phorate production.	(T)
K039.....	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040.....	Wastewater treatment sludge from the production of phorate.	(T)
K041.....	Wastewater treatment sludge from the production of toxaphene.	(T)
K042.....	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5- T.	(T)
K043.....	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K097.....	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K098.....	Untreated process wastewater from the production of toxaphene.	(T)
K099.....	Untreated wastewater from the production of 2,4-D.	(T)
K123.....	Process wastewater	(T)

	(including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt.	
K124.....	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C, T)
K125.....	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126.....	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)
K131.....	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C, T)
K132.....	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)

***Related Resources for Pesticide Wastes:***

**Federal Register Notice(s)**

- Proposed Rule (K123-K126)  
[49 FR 49562; December 20, 1984](#)
- Final Rule (K123-K126)  
[51 FR 37725; October 24, 1986](#)
- Proposed Rule (K131-K132)  
[50 FR 16432; April 25, 1985](#)
- Final Rule (K131-K132)  
[54 FR 41402; October 6, 1989](#)

## **Explosives manufacturing (K044 – K047)**

### Explosives:

K044.....	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045.....	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046.....	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047.....	Pink/red water from TNT operations.	(R)

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### **Related Resources for Explosive Wastes:**

#### **Letters/Memoranda**

- K044: [GENERATION AND TREATMENT OF K044 WASTE](#)
- K047: [APPLICABILITY OF 40 CFR 261.5 TO K047](#)

#### **Fact Sheets and Q&As**

- Q&A (K045): [IS WASTE \( SPENT CARBON FROM THE TREATMENT OF WASTEWATER CONTAINING EXPLOSIVES\) A RCRA HAZARDOUS WASTE SINCE IT MEETS THE DESCRIPTION OF K045? WOULD THIS WASTE BE SUBJECT TO THE LDR REQUIREMENTS IN PART 268?](#)
- Q&A (K047): [REMEDICATION OF TNT-CONTAMINATED SOIL](#)
- Q&A (K047): [WOULD PINK/RED WATER GENERATED AT A TRINITROTOLUNE \(TNT\) PRODUCTION FACILITY DURING THE REMEDIATION OF SOIL CONTAMINATED WITH TNT BE WITHIN THE SCOPE OF THE K047 LISTING?](#)

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## **Petroleum refining (K048 – K052, and K169 – K172)**

### Petroleum refining:

K048.....	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049.....	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050.....	Heat exchanger bundle cleaning sludge from the	(T)

	petroleum refining industry.	
K051.....	API separator sludge from the petroleum refining industry.	(T)
K052.....	Tank bottoms (leaded) from the petroleum refining industry.	(T)
K169.....	Crude oil storage tank sediment from petroleum refining operations.	(T)
K170.....	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations.	(T)
K171.....	Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)
K172.....	Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)

***Related Resources for Petroleum Refining Wastes:***

**Federal Register Notice(s)**

- Listings for petroleum refining process wastes (K169-K172)  
[Rulemaking Information for K169-K172](#)

**Letters/Memoranda**

- K048: [SECONDARY SLUDGES FROM BIOLOGICAL TREATMENT OF REFINERY WASTEWATERS](#)
- K048, K049, AND K051: [REFINERY WASTEWATER](#)
- K048 – K052: [K-WASTE FILTER CAKE IN THE MANUFACTURE OF CEMENT](#)
- K049: [INTERPRETATION OF RCRA HAZARDOUS WASTE DEFINITION FOR SLOP OIL EMULSION SOLIDS](#)
- K049: [OIL/WATER EMULSIONS GENERATED BY PETROLEUM REFINERY WW SYSTEMS-K049 WASTE](#)
- K049 & K051: [LIME SLUDGE IMPOUNDMENT SLUDGE, DELISTING OF](#)

- K050: [REGULATORY REQUIREMENTS FOR TANKS, VEHICLES, VESSELS, PROCESS OR MANUFACTURING UNITS, OR PIPELINES WHICH HAVE BEEN SHUT DOWN](#)
- K051: [PETROLEUM FACILITIES INCLUDED IN THE K051 LISTING FOR API SEPARATOR SLUDGE](#)
- K051 & K052: [SCOPE OF THE K051 AND K052 LISTINGS](#)
- K052: [ARE TANK BOTTOMS REMOVED FROM TANKS CONTAINING ONLY NAPHTHA DEEMED TO BE K052 HAZARDOUS WASTE?](#)
- K052: [TEL GASOLINE SLUDGE DISPOSAL](#)
- K052: [K052 LISTING FOR WASTES GENERATED BY PETROLEUM INDUSTRY](#)
- K171: [REQUEST FOR CLARIFICATION OF ISSUES RAISED BY EPA'S NOVEMBER 29, 1999 MEMO ON THE "PETROLEUM REFINERY RESIDUAL LISTINGS/ SOLID WASTE DEFINITION EXCLUSION RULE" \(63 FR 42110, AUGUST 6, 1998\)](#)
- K171: [REQUEST FOR CLARIFICATION, SPENT CATALYSTS FROM MOTIVA ENTERPRISES LLC, CONVENT REFINERY H-OIL UNIT](#)
- K171 & K172: [REGULATORY STATUS OF OIL-BEARING SECONDARY MATERIALS UNDER RCRA](#)
- K171 & K172: [REUSE OF REGENERATED HYDROPROCESSING CATALYSTS](#)
- K171 & K172: [SPENT CATALYSTS FROM PETROLEUM REFINING DUAL PROCESS REACTORS](#)
- K171 & K172: [SPENT CATALYSTS FROM PETROLEUM REFINING DUAL PROCESS UNITS](#)
- K171 & K172: [SPENT CATALYSTS FROM PETROLEUM REFINING HYDROCRACKING PROCESSES](#)

### **Fact Sheets and Q&As**

- Q&A (K051): [API SEPARATOR SLUDGE, EXCLUSION OF WATER FRACTION FROM K051 LISTING](#)
- Q&A (K051): [K051 AND HSWA: K051 SLUDGE RE-USED ON-SITE, EXEMPTION](#)
- Q&A (K051): [API SEPARATOR WASTEWATER AND SLUDGE](#)
- Q&A (K051): [EFFLUENT FROM API SEPARATOR](#)
- Q&A (K052): [APPLICABILITY OF K052 WASTE CODE TO PIPELINE TERMINALS](#)
- Q&A (K052): [K052: BOTTOMS FROM TANKS STORING LEADED GASOLINE AT PETROLEUM REFINERIES](#)

### ***Iron and steel production (K061 and K062)***

Iron and steel:

K061.....	Emission control dust/ sludge from the primary production of steel in electric furnaces.	(T)
K062.....	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	(C,T)

***Related Resources for Iron and Steel Wastes:***



## **Federal Register Notice(s)**

- Proposed generic exclusion levels for HTMR slag residues derived from K061  
[56 FR 41164; August 19, 1991](#)
- Final generic exclusion levels for HTMR slag residues derived from K061, K062, and F006  
[57 FR 37194; August 18, 1992](#)
- Proposed Rule prohibiting non-encapsulated uses of HTMR slag residues derived from K061, K062, and F006  
[59 FR 8583; February 23, 1994](#)
- Final Rule prohibiting anti-skid use of HTMR slag residues derived from K061, K062, and F006  
[59 FR 43496; August 24, 1994](#)
- Federal Register notice narrowing the scope of the K062 listing  
[52 FR 28697; August 3, 1987](#)

## **Letters/Memoranda**

- K061: [NEW JERSEY ZINC COMPANY K061 STORAGE PILE](#)
- K061: [STATUS OF ELECTRIC ARC FURNACE DUST INCORPORATED INTO GLASS FRIT](#)
- K061: [STAINLESS STEEL PRODUCTION RESIDUES](#)
- K061: [BRIQUETTING OF FLUE DUST \(K061\) FOR STEEL PRODUCTION](#)
- K061: [ELECTRIC ARC FURNACE DUST AFTER ENCAPSULATION TREATMENT PROCESS](#)
- K061: [COMMERCIAL FERTILIZER THAT CONTAINS K061 WASTE](#)
- K061: [EXEMPTION FOR COMMERCIAL FERTILIZERS ONCE THE FERTILIZER IS PRODUCED](#)
- K061: [PRIMARY AND SECONDARY PRODUCTION OF STEEL IN ELECTRIC ARC FURNACES](#)
- K061: [EMISSION CONTROL DUST/SLUDGE FROM ELECTRIC ARC FURNACE AT FOUNDRY NOT A K061 WASTE](#)
- K061: [K061, EMISSION CONTROL DUST/SLUDGE FROM PRODUCTION OF STEEL IN ELECTRIC FURNACES](#)
- K062: [K062 LISTING APPLIES ONLY TO FACILITIES WITHIN THE IRON AND STEEL INDUSTRY](#)
- K062: [WASTE LISTINGS F006 AND K062, SCOPE OF](#)
- K062: [SPENT PICKLE LIQUOR CORROSIVITY](#)
- K062: [REGULATORY STATUS OF LIME-STABILIZED WASTE PICKLE LIQUOR SLUDGE](#)
- K062: [PICKLE LIQUOR RECOVERY UNIT AS AN INDUSTRIAL FURNACE](#)
- K062: [SUPERNATANT FORMED IN LIME STABILIZATION OF WASTE PICKLE LIQUOR AS HAZARDOUS WASTE](#)
- K062: [LIME STABILIZED WASTE PICKLE LIQUOR SLUDGE EXCLUSION](#)
- K062: [LIME-STABILIZED WASTE PICKLE LIQUOR SLUDGE EXEMPTION FOR LIME-AMMONIA STABILIZED IRON OXIDE SLUDGE](#)
- K062: [SPENT PICKLE LIQUOR, DEFINITION AS HAZARDOUS](#)
- K062: [SPENT PICKLE LIQUOR, REUSE OF](#)
- K062: [MIXTURES OF PICKLE LIQUOR AND OTHER WASTES AND THE LIME STABILIZED WASTE PICKLE LIQUOR SLUDGE EXEMPTION](#)
- K062: [SPENT PICKLE LIQUOR FINAL RULE REGARDING SCOPE OF THE K062 LISTING, CORRECTION NOTICE](#)

## Fact Sheets and Q&As

- Q&A (K061): [K061 WASTE](#)
  - Q&A (K061): [BAGHOUSE DUST GENERATED FROM REMELTING PRIMARY PRODUCED STEEL](#)
  - Q&A (K062): [PICKLING BATH CARRYOVER AND K062](#)
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## **Primary aluminum production (K088)**

Primary aluminum:

K088.....	Spent potliners from primary aluminum reduction.	(T)
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### *Related Resources for Primary Aluminum Wastes:*

#### Letters/Memoranda

- K088: [CLARIFICATION ON THE SCOPE OF K088](#)
  - K088: [CLARIFICATION OF THE SCOPE OF THE K088 LISTING](#)
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## **Secondary lead processing (K069 and K100)**

Ferroalloys:

Secondary lead:

K069.....	Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register).	(T)
K100.....	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)

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***Related Resources for Secondary Lead Wastes:***

**Federal Register Notice(s)**

- K069 Administrative Stay Notice  
[56 FR 19951; May1, 1991](#)

**Letters/Memoranda**

- K069: [CLARIFICATION ABOUT THE SCOPE OF EPA'S ADMINISTRATIVE STAY FOR A PORTION OF THE K069 HAZARDOUS WASTE LISTING](#)
- K069: [REGULATORY STATUS OF RESIDUES FROM SECONDARY LEAD SMELTERS THAT RECYCLE K069 WASTES; RESIDUES FROM SECONDARY LEAD SMELTERS THAT RECYCLE K069 WASTES](#)

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***Veterinary pharmaceuticals manufacturing (K084 and K101 – K102)***

Veterinary pharmaceuticals:

K084.....	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101.....	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102.....	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)

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***Ink formulation (K086)***

Ink formulation:

K086.....	Solvent washes and sludges, caustic washes and sludges, or water	(T)
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washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.

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***Related Resources for Secondary Ink Formulation Wastes:***

**Letters/Memoranda**

- K086: [INK FORMULATION WASTES AS BOTH K086 AND F001-005 WASTES](#)

**Fact Sheets and Q&As**

- Q&A (K086): [DYES USED IN INK FORMULATION \(K086\)](#)
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***Coking (K060, K141 – K145, and K147-K148)***

Coking:

K060.....	Ammonia still lime sludge from coking operations.	(T)
K087.....	Decanter tank tar sludge from coking operations.	(T)
K141.....	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).	(T)
K142.....	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	(T)
K143.....	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil	(T)

	recovery units from the recovery of coke by-products produced from coal.	
K144.....	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	(T)
K145.....	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	(T)
K147.....	Tar storage tank residues from coal tar refining.	(T)
K148.....	Residues from coal tar distillation, including but not limited to, still bottoms.	(T)

Note: EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148 are not solid wastes under RCRA, provided they are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. See [261.4\(a\)\(10\)](#).

***Related Resources for Coking Wastes:***

**Federal Register Notice(s)**

- Proposed Rule (K141-K145 and K147-K148)  
[56 FR 35758; July 26, 1991](#)
- Final Rule (K141-K145 and K147-K148)  
[57 FR 37284; August 18, 1992](#)

**Letters/Memoranda**

- K147 & K148: [REGULATORY STATUS OF CENTRIFUGE UNDERFLOW WASTES](#)

[NOTE: The following language is continuation of § 261.32]

(b) *Listing Specific Definitions:* (1) For the purposes of the K181 listing, dyes and/or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or FDA certified colors that are classified as azo, triarylmethane, perylene or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products.

Wastes that are not generated at a dyes and/or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes and/or pigments, are not included in the K181 listing.

(c) *K181 Listing Levels.* Nonwastewaters containing constituents in amounts equal to or exceeding the following levels during any calendar year are subject to the K181 listing, unless the conditions in the K181 listing are met.

<b>Constituent</b>	<b>Chemical abstracts No.</b>	<b>Mass levels (kg/yr)</b>
Aniline	62-53-3	9,300
o-Anisidine	90-04-0	110
4-Chloroaniline	106-47-8	4,800
p-Cresidine	120-71-8	660
2,4-Dimethylaniline	95-68-1	100
1,2-Phenylenediamine	95-54-5	710
1,3-Phenylenediamine	108-45-2	1,200

(d) *Procedures for demonstrating that dyes and/or pigment nonwastewaters are not K181.* The procedures described in paragraphs (d)(1)–(d)(3) and (d)(5) of this section establish when nonwastewaters from the production of dyes/pigments would not be hazardous (these procedures apply to wastes that are not disposed in landfill units or treated in combustion units as specified in paragraph (a) of this section). If the nonwastewaters are disposed in landfill units or treated in combustion units as described in paragraph (a) of this section, then the nonwastewaters are not hazardous. In order to demonstrate that it is meeting the landfill disposal or combustion conditions contained in the K181 listing description, the generator must maintain documentation as described in paragraph (d)(4) of this section.

(1) *Determination based on no K181 constituents.* Generators that have knowledge (e.g., knowledge of constituents in wastes based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed) that their wastes contain none of the K181 constituents ( *see* paragraph (c) of this section) can use their knowledge to determine that their waste is not K181. The generator must document the basis for all such determinations on an annual basis and keep each annual documentation for three years.

(2) *Determination for generated quantities of 1,000 MT/yr or less for wastes that contain K181 constituents.* If the total annual quantity of dyes and/or pigment nonwastewaters generated is 1,000 metric tons or less, the generator can use knowledge of the wastes (e.g., knowledge of constituents in wastes based on prior analytical data and/or information about raw materials used, production processes used, and reaction and degradation products formed) to conclude that

annual mass loadings for the K181 constituents are below the listing levels of paragraph (c) of this section. To make this determination, the generator must:

(i) Each year document the basis for determining that the annual quantity of nonwastewaters expected to be generated will be less than 1,000 metric tons.

(ii) Track the actual quantity of nonwastewaters generated from January 1 through December 31 of each year. If, at any time within the year, the actual waste quantity exceeds 1,000 metric tons, the generator must comply with the requirements of paragraph (d)(3) of this section for the remainder of the year.

(iii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(iv) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(A) The quantity of dyes and/or pigment nonwastewaters generated.

(B) The relevant process information used.

(C) The calculations performed to determine annual total mass loadings for each K181 constituent in the nonwastewaters during the year.

(3) *Determination for generated quantities greater than 1,000 MT/yr for wastes that contain K181 constituents.* If the total annual quantity of dyes and/or pigment nonwastewaters generated is greater than 1,000 metric tons, the generator must perform all of the steps described in paragraphs ((d)(3)(i)–(d)(3)(xi) of this section) in order to make a determination that its waste is not K181.

(i) Determine which K181 constituents (see paragraph (c) of this section) are reasonably expected to be present in the wastes based on knowledge of the wastes (e.g., based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed).

(ii) If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge, the generator must comply with the procedures for using knowledge described in paragraph (d)(2) of this section and keep the records described in paragraph (d)(2)(iv) of this section. For determinations based on sampling and analysis, the generator must comply with the sampling and analysis and recordkeeping requirements described below in this section.

(iii) Develop a waste sampling and analysis plan (or modify an existing plan) to collect and analyze representative waste samples for the K181 constituents reasonably expected to be present in the wastes. At a minimum, the plan must include:

- (A) A discussion of the number of samples needed to characterize the wastes fully;
  - (B) The planned sample collection method to obtain representative waste samples;
  - (C) A discussion of how the sampling plan accounts for potential temporal and spatial variability of the wastes.
  - (D) A detailed description of the test methods to be used, including sample preparation, clean up (if necessary), and determinative methods.
- (iv) Collect and analyze samples in accordance with the waste sampling and analysis plan.
- (A) The sampling and analysis must be unbiased, precise, and representative of the wastes.
  - (B) The analytical measurements must be sufficiently sensitive, accurate and precise to support any claim that the constituent mass loadings are below the listing levels of paragraph (c) of this section.
- (v) Record the analytical results.
  - (vi) Record the waste quantity represented by the sampling and analysis results.
  - (vii) Calculate constituent-specific mass loadings (product of concentrations and waste quantity).
  - (viii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.
  - (ix) Determine whether the mass of any of the K181 constituents listed in paragraph (c) of this section generated between January 1 and December 31 of any year is below the K181 listing levels.
  - (x) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:
    - (A) The sampling and analysis plan.
    - (B) The sampling and analysis results (including QA/QC data)
    - (C) The quantity of dyes and/or pigment nonwastewaters generated.
    - (D) The calculations performed to determine annual mass loadings.
  - (xi) Nonhazardous waste determinations must be conducted annually to verify that the wastes remain nonhazardous.



(A) The annual testing requirements are suspended after three consecutive successful annual demonstrations that the wastes are nonhazardous. The generator can then use knowledge of the wastes to support subsequent annual determinations.

(B) The annual testing requirements are reinstated if the manufacturing or waste treatment processes generating the wastes are significantly altered, resulting in an increase of the potential for the wastes to exceed the listing levels.

(C) If the annual testing requirements are suspended, the generator must keep records of the process knowledge information used to support a nonhazardous determination. If testing is reinstated, a description of the process change must be retained.

(4) *Recordkeeping for the landfill disposal and combustion exemptions.* For the purposes of meeting the landfill disposal and combustion condition set out in the K181 listing description, the generator must maintain on site for three years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets the landfill design standards set out in the listing description, or was treated in combustion units as specified in the listing description.

(5) *Waste holding and handling.* During the interim period, from the point of generation to completion of the hazardous waste determination, the generator is responsible for storing the wastes appropriately. If the wastes are determined to be hazardous and the generator has not complied with the subtitle C requirements during the interim period, the generator could be subject to an enforcement action for improper management.

[46 FR 4618, Jan. 16, 1981]

**Editorial Note:** For Federal Register citations affecting § [261.32](#), see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

## **§ 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 § [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, or when, 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 product 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 § [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 of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name 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 § [261.31](#) or § [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 intermediates or off-specification commercial chemical products 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 the small quantity exclusion defined in § [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. Wastes are first listed in

alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

<b>Hazardous waste No.</b>	<b>Chemical abstracts No.</b>	<b>Substance</b>
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-yl methylcarbamate 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
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-Cumenyl 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-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2alpha,3beta,6beta,6alpha,7beta, 7alpha)-
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-, (1alpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7alpha)-, & metabolites
P044	60-51-5	Dimethoate

P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan.
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	Diphosphoramid, 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	Ethanimidothioic 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
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(dimethylcarbamo-dithioato-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)-carbonyl]oxy]phenyl]-, monohydrochloride.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino)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-Methylactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb.
P128	315-8-4	Mexacarbate.
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 cyanide Ni(CN) <sub>2</sub>
P075	<sup>1</sup> 54-11-5	Nicotine, & salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
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	Octamethylpyrophosphoramidate
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
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-
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
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, 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	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetrphosphoric acid, hexaethyl ester

P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide $Tl_2O_3$
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.
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%
P001	<sup>1</sup> 81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P002	591-08-2	Acetamide, -(aminothioxomethyl)-
P002	591-08-2	1-Acetyl-2-thiourea

P003	107-02-8	Acrolein
P003	107-02-8	2-Propenal
P004	309-00-2	Aldrin
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P005	107-18-6	Allyl alcohol
P005	107-18-6	2-Propen-1-ol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P008	504-24-5	4-Aminopyridine
P008	504-24-5	4-Pyridinamine
P009	131-74-8	Ammonium picrate (R)
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P010	7778-39-4	Arsenic acid H <sub>3</sub> AsO <sub>4</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 oxide As <sub>2</sub> O <sub>3</sub>
P012	1327-53-3	Arsenic trioxide
P013	542-62-1	Barium cyanide
P014	108-98-5	Benzenethiol
P014	108-98-5	Thiophenol
P015	7440-41-7	Beryllium powder
P016	542-88-1	Dichloromethyl ether
P016	542-88-1	Methane, oxybis[chloro-
P017	598-31-2	Bromoacetone
P017	598-31-2	2-Propanone, 1-bromo-
P018	357-57-3	Brucine
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P020	88-85-7	Dinoseb

P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $\text{Ca}(\text{CN})_2$
P022	75-15-0	Carbon disulfide
P023	107-20-0	Acetaldehyde, chloro-
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	Benzenamine, 4-chloro-
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P027	542-76-7	3-Chloropropionitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P028	100-44-7	Benzene, (chloromethyl)-
P028	100-44-7	Benzyl chloride
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide $\text{Cu}(\text{CN})$
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P031	460-19-5	Ethanedinitrile
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride $(\text{CN})\text{Cl}$
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P036	696-28-6	Arsonous dichloride, phenyl-
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P037	60-57-1	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,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)-
P038	692-42-2	Arsine, diethyl-
P038	692-42-2	Diethylarsine

P039	298-04-4	Disulfoton
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P042	51-43-4	Epinephrine
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P044	60-51-5	Dimethoate
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methyl amino)-2-oxoethyl] ester
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime
P045	39196-18-4	Thiofanox
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P047	<sup>1</sup> 534-52-1	4,6-Dinitro-o-cresol, & salts
P047	<sup>1</sup> 534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P048	51-28-5	2,4-Dinitrophenol
P048	51-28-5	Phenol, 2,4-dinitro-
P049	541-53-7	Dithiobiuret
P049	541-53-7	Thioimidodicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> NH
P050	115-29-7	Endosulfan
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
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,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P051	72-20-8	Endrin

P051	72-20-8	Endrin, & metabolites
P054	151-56-4	Aziridine
P054	151-56-4	Ethyleneimine
P056	7782-41-4	Fluorine
P057	640-19-7	Acetamide, 2-fluoro-
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P058	62-74-8	Fluoroacetic acid, sodium salt
P059	76-44-8	Heptachlor
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P060	465-73-6	Isodrin
P062	757-58-4	Hexaethyl tetraphosphate
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P064	624-83-9	Methane, isocyanato-
P064	624-83-9	Methyl isocyanate
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)
P065	628-86-4	Mercury fulminate (R,T)
P066	16752-77-5	Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester
P066	16752-77-5	Methomyl
P067	75-55-8	Aziridine, 2-methyl-
P067	75-55-8	1,2-Propylenimine
P068	60-34-4	Hydrazine, methyl-
P068	60-34-4	Methyl hydrazine
P069	75-86-5	2-Methylactonitrile
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-

P070	116-06-3	Aldicarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P071	298-00-0	Methyl parathion
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P072	86-88-4	alpha-Naphthylthiourea
P072	86-88-4	Thiourea, 1-naphthalenyl-
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 cyanide Ni(CN) <sub>2</sub>
P075	<sup>1</sup> 54-11-5	Nicotine, & salts
P075	<sup>1</sup> 54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
P076	10102-43-9	Nitric oxide
P076	10102-43-9	Nitrogen oxide NO
P077	100-01-6	Benzenamine, 4-nitro-
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P078	10102-44-0	Nitrogen oxide NO <sub>2</sub>
P081	55-63-0	Nitroglycerine (R)
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P082	62-75-9	Methanamine, -methyl-N-nitroso-
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P084	4549-40-0	Vinylamine, -methyl-N-nitroso-
P085	152-16-9	Diphosphoramidate, octamethyl-
P085	152-16-9	Octamethylpyrophosphoramidate
P087	20816-12-0	Osmium oxide OsO <sub>4</sub> , (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	Endothall



P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P092	62-38-4	Mercury, (acetato-O)phenyl-
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P093	103-85-5	Thiourea, phenyl-
P094	298-02-2	Phorate
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P095	75-44-5	Carbonic dichloride
P095	75-44-5	Phosgene
P096	7803-51-2	Hydrogen phosphide
P096	7803-51-2	Phosphine
P097	52-85-7	Famphur
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P099	506-61-6	Potassium silver cyanide
P101	107-12-0	Ethyl cyanide
P101	107-12-0	Propanenitrile
P102	107-19-7	Propargyl alcohol
P102	107-19-7	2-Propyn-1-ol
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> 157-24-9	Strychnidin-10-one, & salts
P108	<sup>1</sup> 157-24-9	Strychnine, & salts
P109	3689-24-5	Tetraethyldithiopyrophosphate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P110	78-00-2	Plumbane, tetraethyl-
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Methane, tetranitro-(R)
P112	509-14-8	Tetranitromethane (R)
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl <sub>2</sub> O <sub>3</sub>
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P114	12039-52-0	Tetraethyldithiopyrophosphate
P115	7446-18-6	Thiodiphosphoric acid, tetraethyl ester
P115	7446-18-6	Plumbane, tetraethyl-
P116	79-19-6	Tetraethyl lead
P116	79-19-6	Thiosemicarbazide
P118	75-70-7	Methanethiol, trichloro-
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Ammonium vanadate
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V <sub>2</sub> O <sub>5</sub>
P120	1314-62-1	Vanadium pentoxide
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN) <sub>2</sub>
P122	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations greater than 10% (R,T)
P123	8001-35-2	Toxaphene
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.

P127	1563-66-2	Carbofuran
P128	315-8-4	Mexacarbate
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime.
P185	26419-73-8	Tirpate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3a <i>S</i> -cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3- <i>b</i> ]indol-5-yl methylcarbamate ester (1:1)
P188	57-64-7	Physostigmine salicylate
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P189	55285-14-8	Carbosulfan
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P190	1129-41-5	Metolcarb
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1 <i>H</i> -pyrazol-3-yl ester
P191	644-64-4	Dimetilan
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1 <i>H</i> -pyrazol-5-yl ester
P192	119-38-0	Isolan
P194	23135-22-0	Ethanimidthioic acid, 2-(dimethylamino)- <i>N</i> -[[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester
P194	23135-22-0	Oxamyl
P196	15339-36-3	Manganese, bis(dimethylcarbamo-dithioato- <i>S,S'</i> )-,
P196	15339-36-3	Manganese dimethyldithiocarbamate
P197	17702-57-7	Formparanate
P197	17702-57-7	Methanimidamide, <i>N,N</i> -dimethyl- <i>N'</i> -[2-methyl-4-[[[(methylamino)carbonyl]oxy]phenyl]-
P198	23422-53-9	Formetanate hydrochloride
P198	23422-53-9	Methanimidamide, <i>N,N</i> -dimethyl- <i>N'</i> -[3-[[[(methylamino)-carbonyl]oxy]phenyl]-monohydrochloride
P199	2032-65-7	Methiocarb

P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P201	2631-37-0	Promecarb
P202	64-00-6	m-Cumenyl methylcarbamate
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P203	1646-88-4	Aldicarb sulfone
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime
P204	57-47-6	Physostigmine
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)-
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P205	137-30-4	Ziram

<sup>1</sup>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 § [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. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous 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	<sup>1</sup> 94-75-7	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
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,8balph)]-
U280	101-27-9	Barban.
U278	22781-23-3	Bendiocarb.
U364	22961-	Bendiocarb phenol.

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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
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)-alpha-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-
U061	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-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U202	<sup>1</sup> 81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo[rs]pentaphene
U248	<sup>1</sup> 81-81-2	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-



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]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
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.
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-
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U114	<sup>1</sup> 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) 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)
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-Chloronaphthalene

U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
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
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-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	<sup>1</sup> 94-75-7	2,4-D, salts & esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
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)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U395	5952-26-1	Diethylene glycol, dicarbamate.
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	Diethylstilbesterol
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	Dimethylcarbonyl 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
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)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
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
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
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.
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)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)

U117	60-29-7	Ethyl ether (I)
U114	<sup>1</sup> 111-54-6	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
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)-carbonyl]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)
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
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-	Lead phosphate



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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
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-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
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxohexopyranosyl]oxy]-7,8,9,10-tetrahydro-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
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
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-
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-
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.
U387	52888-80-9	Prosulfocarb.
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
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-chloroethyl)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	<sup>1</sup> 81-07-2	Saccharin, & salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide

U205	7488-56-4	Selenium sulfide SeS <sub>2</sub> (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
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
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)
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
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb.
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , 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
U226	71-55-6	1,1,1-Trichloroethane
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-



U043	75-01-4	Vinyl chloride
U248	<sup>1</sup> 81-81-2	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)-
U249	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10% or less
U001	75-07-0	Acetaldehyde (I)
U001	75-07-0	Ethanal (I)
U002	67-64-1	Acetone (I)
U002	67-64-1	2-Propanone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U004	98-86-2	Ethanone, 1-phenyl-
U005	53-96-3	Acetamide, -9H-fluoren-2-yl-
U005	53-96-3	2-Acetylamino fluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U007	79-06-1	2-Propenamamide
U008	79-10-7	Acrylic acid (I)
U008	79-10-7	2-Propenoic acid (I)
U009	107-13-1	Acrylonitrile
U009	107-13-1	2-Propenenitrile
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,8alpha,8beta)-
U010	50-07-7	Mitomycin C
U011	61-82-5	Amitrole
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U012	62-53-3	Aniline (I,T)
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Auramine
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U015	115-02-6	Azaserine
U015	115-02-6	L-Serine, diazoacetate (ester)
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U017	98-87-3	Benzene, (dichloromethyl)-
U018	56-55-3	Benz[a]anthracene
U019	71-43-2	Benzene (I,T)
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U021	92-87-5	Benzidine
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U022	50-32-8	Benzo[a]pyrene
U023	98-07-7	Benzene, (trichloromethyl)-
U023	98-07-7	Benzotrichloride (C,R,T)
U024	111-91-1	Dichloromethoxy ethane
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U025	111-44-4	Dichloroethyl ether
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U026	494-03-1	Chlornaphazin

U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U027	108-60-1	Dichloroisopropyl ether
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U028	117-81-7	Diethylhexyl phthalate
U029	74-83-9	Methane, bromo-
U029	74-83-9	Methyl bromide
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U030	101-55-3	4-Bromophenyl phenyl ether
U031	71-36-3	1-Butanol (I)
U031	71-36-3	n-Butyl alcohol (I)
U032	13765-19-0	Calcium chromate
U032	13765-19-0	Chromic acid H <sub>2</sub> CrO <sub>4</sub> , calcium salt
U033	353-50-4	Carbonic difluoride
U033	353-50-4	Carbon oxyfluoride (R,T)
U034	75-87-6	Acetaldehyde, trichloro-
U034	75-87-6	Chloral
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
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-
U037	108-90-7	Benzene, chloro-
U037	108-90-7	Chlorobenzene
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester

U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U041	106-89-8	Epichlorohydrin
U041	106-89-8	Oxirane, (chloromethyl)-
U042	110-75-8	2-Chloroethyl vinyl ether
U042	110-75-8	Ethene, (2-chloroethoxy)-
U043	75-01-4	Ethene, chloro-
U043	75-01-4	Vinyl chloride
U044	67-66-3	Chloroform
U044	67-66-3	Methane, trichloro-
U045	74-87-3	Methane, chloro- (I,T)
U045	74-87-3	Methyl chloride (I,T)
U046	107-30-2	Chloromethyl methyl ether
U046	107-30-2	Methane, chloromethoxy-
U047	91-58-7	beta-Chloronaphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U048	95-57-8	o-Chlorophenol
U048	95-57-8	Phenol, 2-chloro-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U052	1319-77-3	Phenol, methyl-

U053	4170-30-3	2-Butenal
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Benzene, (1-methylethyl)-(I)
U055	98-82-8	Cumene (I)
U056	110-82-7	Benzene, hexahydro-(I)
U056	110-82-7	Cyclohexane (I)
U057	108-94-1	Cyclohexanone (I)
U058	50-18-0	Cyclophosphamide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U059	20830-81-3	Daunomycin
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxohexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U060	72-54-8	DDD
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U061	50-29-3	DDT
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-di chloro-2-propenyl) ester
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Benzo[rst]pentaphene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane

U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U067	106-93-4	Ethane, 1,2-dibromo-
U067	106-93-4	Ethylene dibromide
U068	74-95-3	Methane, dibromo-
U068	74-95-3	Methylene bromide
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	Benzene, 1,2-dichloro-
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	Benzene, 1,3-dichloro-
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	Benzene, 1,4-dichloro-
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	2-Butene, 1,4-dichloro-(I,T)
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U075	75-71-8	Methane, dichlorodifluoro-
U076	75-34-3	Ethane, 1,1-dichloro-
U076	75-34-3	Ethylidene dichloride
U077	107-06-2	Ethane, 1,2-dichloro-
U077	107-06-2	Ethylene dichloride
U078	75-35-4	1,1-Dichloroethylene
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	1,2-Dichloroethylene
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U080	75-09-2	Methane, dichloro-

U080	75-09-2	Methylene chloride
U081	120-83-2	2,4-Dichlorophenol
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	2,6-Dichlorophenol
U082	87-65-0	Phenol, 2,6-dichloro-
U083	78-87-5	Propane, 1,2-dichloro-
U083	78-87-5	Propylene dichloride
U084	542-75-6	1,3-Dichloropropene
U084	542-75-6	1-Propene, 1,3-dichloro-
U085	1464-53-5	2,2'-Bioxirane
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U086	1615-80-1	N,N'-Diethylhydrazine
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U090	94-58-6	Dihydrosafrole
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U091	119-90-4	3,3'-Dimethoxybenzidine

U092	124-40-3	Dimethylamine (I)
U092	124-40-3	Methanamine, -methyl-(I)
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U097	79-44-7	Carbamic chloride, dimethyl-
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	1,2-Dimethylhydrazine
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U101	105-67-9	2,4-Dimethylphenol
U101	105-67-9	Phenol, 2,4-dimethyl-
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U103	77-78-1	Sulfuric acid, dimethyl ester
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester



U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Diethyleneoxide
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U110	142-84-7	Dipropylamine (I)
U110	142-84-7	1-Propanamine, N-propyl-(I)
U111	621-64-7	Di-n-propylnitrosamine
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U112	141-78-6	Acetic acid ethyl ester (I)
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U114	<sup>1</sup> 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U114	<sup>1</sup> 111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U115	75-21-8	Ethylene oxide (I,T)
U115	75-21-8	Oxirane (I,T)
U116	96-45-7	Ethylenethiourea
U116	96-45-7	2-Imidazolidinethione
U117	60-29-7	Ethane, 1,1'-oxybis-(I)
U117	60-29-7	Ethyl ether (I)
U118	97-63-2	Ethyl methacrylate
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U119	62-50-0	Ethyl methanesulfonate
U119	62-50-0	Methanesulfonic acid, ethyl ester
U120	206-44-0	Fluoranthene
U121	75-69-4	Methane, trichlorofluoro-

U121	75-69-4	Trichloromonofluoromethane
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U124	110-00-9	Furfuran (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U125	98-01-1	Furfural (I)
U126	765-34-4	Glycidylaldehyde
U126	765-34-4	Oxiranecarboxyaldehyde
U127	118-74-1	Benzene, hexachloro-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U128	87-68-3	Hexachlorobutadiene
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U129	58-89-9	Lindane
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5- hexachloro-
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Ethane, hexachloro-
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U133	302-01-2	Hydrazine (R,T)
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide

U135	7783-06-4	Hydrogen sulfide H <sub>2</sub> S
U136	75-60-5	Arsinic acid, dimethyl-
U136	75-60-5	Cacodylic acid
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U138	74-88-4	Methane, iodo-
U138	74-88-4	Methyl iodide
U140	78-83-1	Isobutyl alcohol (I,T)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U143	303-34-4	Lasiocarpine
U144	301-04-2	Acetic acid, lead(2+) salt
U144	301-04-2	Lead acetate
U145	7446-27-7	Lead phosphate
U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U146	1335-32-6	Lead subacetate
U147	108-31-6	2,5-Furandione

U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U149	109-77-3	Malononitrile
U149	109-77-3	Propanedinitrile
U150	148-82-3	Melphalan
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U153	74-93-1	Methanethiol (I,T)
U153	74-93-1	Thiomethanol (I,T)
U154	67-56-1	Methanol (I)
U154	67-56-1	Methyl alcohol (I)
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U155	91-80-5	Methapyrilene
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U159	78-93-3	2-Butanone (I,T)
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)

U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U161	108-10-1	Methyl isobutyl ketone (I)
U161	108-10-1	4-Methyl-2-pentanone (I)
U161	108-10-1	Pentanol, 4-methyl-
U162	80-62-6	Methyl methacrylate (I,T)
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U163	70-25-7	Guanidine, -methyl-N'-nitro-N-nitroso-
U163	70-25-7	MNNG
U164	56-04-2	Methylthiouracil
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U165	91-20-3	Naphthalene
U166	130-15-4	1,4-Naphthalenedione
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	1-Naphthalenamine
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	2-Naphthalenamine
U168	91-59-8	beta-Naphthylamine
U169	98-95-3	Benzene, nitro-
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U170	100-02-7	Phenol, 4-nitro-
U171	79-46-9	2-Nitropropane (I,T)
U171	79-46-9	Propane, 2-nitro- (I,T)
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-	Ethanol, 2,2'-(nitrosoimino)bis-

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U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	Ethanamine, -ethyl-N-nitroso-
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	N-Nitroso-N-methylurea
U177	684-93-5	Urea, N-methyl-N-nitroso-
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U179	100-75-4	Piperidine, 1-nitroso-
U180	930-55-2	N-Nitrosopyrrolidine
U180	930-55-2	Pyrrolidine, 1-nitroso-
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U181	99-55-8	5-Nitro-o-toluidine
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U182	123-63-7	Paraldehyde
U183	608-93-5	Benzene, pentachloro-
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Ethane, pentachloro-
U184	76-01-7	Pentachloroethane
U185	82-68-8	Benzene, pentachloronitro-
U185	82-68-8	Pentachloronitrobenzene (PCNB)
U186	504-60-9	1-Methylbutadiene (I)
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Acetamide, -(4-ethoxyphenyl)-

U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U189	1314-80-3	Phosphorus sulfide (R)
U189	1314-80-3	Sulfur phosphide (R)
U190	85-44-9	1,3-Isobenzofurandione
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U191	109-06-8	Pyridine, 2-methyl-
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U192	23950-58-5	Pronamide
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U193	1120-71-4	1,3-Propane sultone
U194	107-10-8	1-Propanamine (I,T)
U194	107-10-8	n-Propylamine (I,T)
U196	110-86-1	Pyridine
U197	106-51-4	p-Benzoquinone
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U200	50-55-5	Reserpine
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3beta,16beta,17alpha,18beta,20alpha)-
U201	108-46-3	1,3-Benzenediol
U201	108-46-3	Resorcinol
U202	181-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts

U202	181-07-2	Saccharin, & salts
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS <sub>2</sub> (R,T)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)-carbonyl]amino]-
U206	18883-66-4	Streptozotocin
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Ethene, tetrachloro-
U210	127-18-4	Tetrachloroethylene
U211	56-23-5	Carbon tetrachloride
U211	56-23-5	Methane, tetrachloro-
U213	109-99-9	Furan, tetrahydro-(I)
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Acetic acid, thallium(1+) salt
U214	563-68-8	Thallium(I) acetate



U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TICl
U217	10102-45-1	Nitric acid, thallium(1+) salt
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Ethanethioamide
U218	62-55-5	Thioacetamide
U219	62-56-6	Thiourea
U220	108-88-3	Benzene, methyl-
U220	108-88-3	Toluene
U221	25376-45-8	Benzenediamine, ar-methyl-
U221	25376-45-8	Toluenediamine
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U222	636-21-5	o-Toluidine hydrochloride
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U223	26471-62-5	Toluene diisocyanate (R,T)
U225	75-25-2	Bromoform
U225	75-25-2	Methane, tribromo-
U226	71-55-6	Ethane, 1,1,1-trichloro-
U226	71-55-6	Methyl chloroform
U226	71-55-6	1,1,1-Trichloroethane

U227	79-00-5	Ethane, 1,1,2-trichloro-
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Ethene, trichloro-
U228	79-01-6	Trichloroethylene
U234	99-35-4	Benzene, 1,3,5-trinitro-
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
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
U236	72-57-1	Trypan blue
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U237	66-75-1	Uracil mustard
U238	51-79-6	Carbamic acid, ethyl ester
U238	51-79-6	Ethyl carbamate (urethane)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U239	1330-20-7	Xylene (I)
U240	<sup>1</sup> 94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U240	<sup>1</sup> 94-75-7	2,4-D, salts & esters
U243	1888-71-7	Hexachloropropene
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U244	137-26-8	Thioperoxydicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , tetramethyl-
U244	137-26-8	Thiram

U246	506-68-3	Cyanogen bromide (CN)Br
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
U247	72-43-5	Methoxychlor
U248	<sup>1</sup> 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U248	<sup>1</sup> 81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U249	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10% or less
U271	17804-35-2	Benomyl
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U278	22781-23-3	Bendiocarb
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U279	63-25-2	Carbaryl
U279	63-25-2	1-Naphthalenol, methylcarbamate
U280	101-27-9	Barban
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	95-53-4	Benzenamine, 2-methyl-
U328	95-53-4	o-Toluidine
U353	106-49-0	Benzenamine, 4-methyl-
U353	106-49-0	p-Toluidine
U359	110-80-5	Ethanol, 2-ethoxy-
U359	110-80-5	Ethylene glycol monoethyl ether
U364	22961-82-6	Bendiocarb phenol

U364	22961- 82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U367	1563-38- 8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U367	1563-38- 8	Carbofuran phenol
U372	10605- 21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U372	10605- 21-7	Carbendazim
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U373	122-42-9	Propham
U387	52888- 80-9	Carbamothioic acid, dipropyl-, S- (phenylmethyl) ester
U387	52888- 80-9	Prosulfocarb
U389	2303-17- 5	Carbamothioic acid, bis(1-methylethyl)-, S- (2,3,3-trichloro-2-propenyl) ester
U389	2303-17- 5	Triallate
U394	30558- 43-1	A2213
U394	30558- 43-1	Ethanimidothioic acid, 2-(dimethylamino)- N-hydroxy-2-oxo-, methyl ester
U395	5952-26- 1	Diethylene glycol, dicarbamate
U395	5952-26- 1	Ethanol, 2,2'-oxybis-, dicarbamate
U404	121-44-8	Ethanamine, N,N-diethyl-
U404	121-44-8	Triethylamine
U409	23564- 05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester
U409	23564- 05-8	Thiophanate-methyl

U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U410	59669-26-0	Thiodicarb
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U411	114-26-1	Propoxur
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
See F027	87-86-5	Pentachlorophenol
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-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
See F027	93-72-1	Silvex (2,4,5-TP)
See F027	93-76-5	2,4,5-T
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol

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

***Related Resources for P and U Wastes:***

- MEMO: [P AND U-LISTED WASTES](#)
- MEMO: [STATUS OF USED AND DISCARDED PESTICIDES](#)
- MEMO: [PRESERVATIVES ADDED TO PESTICIDES ARE NOT CONSIDERED ACTIVE INGREDIENTS FOR PURPOSES OF THE P- AND U-LISTS.](#)
- MEMO: [DISPOSAL OF ANTINEOPLASTIC AGENTS AS U-LISTED WASTES](#)
- LETTER: [REGULATORY STATUS OF CERTAIN WASTES FROM TESTING, DISCARDED PROTECTIVE EQUIPMENT, AND OTHER MANUFACTURING WASTES](#)
- LETTER: [SPENT METHYL BROMIDE ACTIVATED CARBON IS NOT U029](#)
- LETTER: [USE OF CAS NUMBERS AS HAZARDOUS WASTE IDENTIFICATION AID](#)
- LETTER: [P- AND U-LISTINGS APPLY TO COMMERCIAL CHEMICAL PRODUCTS WITH THE GENERIC NAMES LISTED IN 261.33.](#)
- LETTER: [CLASSIFICATION OF SPILLED OFF-SPECIFICATION COMMERCIAL CHEMICAL PRODUCT](#)

- LETTER: [STATUS OF SOIL CONTAMINATED FROM PESTICIDE APPLICATION](#)
- Q&A(U226): [METHYL CHLOROFORM](#)
- Q&A (U223): [DOES THE U223 HAZARDOUS WASTE CODE APPLY TO VIRGIN TOLUENE DIISOCYANATE \(TDI\) THAT HAS BEEN NEUTRALIZED TO REMOVE THE REACTIVITY CHARACTERISTIC?](#)
- Q&A: [DO THE P OR U WASTE CODES APPLY TO ANY DISCARDED COMMERCIAL CHEMICAL PRODUCT \(CCP\) CONTAINING THE SUBSTANCES LISTED IN 40 CFR §261.33?](#)
- Q&A: [DO THE P AND U LISTS APPLY TO CHEMICALS THAT HAVE BEEN USED IN A MANUFACTURING PROCESS?](#)
- Q&A: [DEFINITION OF COMMERCIAL CHEMICAL PRODUCTS FOR SOLID WASTE DETERMINATIONS VS. HAZARDOUS WASTE DETERMINATIONS](#)
- Q&A: [COMMERCIAL CHEMICAL PRODUCT DEFINITION IN §261.33](#)
- Q&A: [USED COMMERCIAL CHEMICAL PRODUCT](#)
- Q&A: [DISCARDED NITROGLYCERINE PILLS AND WASTE CODE P081](#)
- Q&A: [STATUS OF DISCARDED MERCURY THERMOMETERS](#)
- Q&A: [PARAFORMALDEHYDE IS AN OFF-SPECIFICATION FORM OF FORMALDEHYDE AND MEETS THE U122 LISTING](#)
- Q&A: [RESIDUES FROM USED SYRINGES](#)
- Q&A: [ISOMERS OF P- AND U-LISTED WASTES](#)

## Delisting Wastes

The RCRA regulations provide a form of relief for listed wastes through a site-specific process known as “delisting.” The regulations governing the delisting process are given at [40 CFR 260.20](#) and [260.22](#). These regulations set out a procedure and standards by which persons may demonstrate that a specific waste from a particular generating facility should not be regulated as a listed hazardous waste. Under these regulations, any person may petition EPA to remove its waste from regulation by excluding it from the lists of hazardous wastes contained in [Part 261](#). EPA has granted delistings to a variety of facilities, and these may be found in [§261 Appendix IX](#).