

HAZARDOUS WASTE MANAGEMENT AND DISPOSAL

SAFETY POLICY MANUAL - SECTION 3.0 - POLICY NO. HM 1.1



SAFETY DEPARTMENT | 6001 UNIVERSITY BOULEVARD MOON TOWNSHIP, PA 15108

412-397-4343



I. Purpose:

This policy establishes operational procedures necessary for proper management and disposal of “hazardous waste” at Robert Morris University. This policy is intended to ensure that the management and disposal of hazardous waste is accomplished in a safe, environmentally sound manner in accordance with all applicable Federal, State, and local regulatory requirements.

II. Scope & Applicability:

This policy shall apply to all employees, activities, and operational aspects of Robert Morris University involved with the generation, handling, and disposal of hazardous waste.

III. References:

- A. The Resource Conservation and Recovery Act of 1976 (RCRA; P.L. 94-580), as amended. (40 CFR 124, 148, 260-268, 270-272, 280)
- B. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA; P.L. 96-510), as amended. (40 CFR 300, 302, 303, 310, 350, 355, 370, 372)
- C. The Hazardous Materials Transportation Act of 1974 (HMTA; 49 U.S.C. 1801), as amended. (49 CFR 101, 106, 107, 171-179)
- D. The Pennsylvania Hazardous Waste Regulations (Pennsylvania Code. Title 25 – Environmental Resources, Chapters 260-270 – Hazardous Waste Regulations)
- E. The Pennsylvania Municipal Waste Regulations (Pennsylvania Code, Title 25 – Environmental Resources, Chapters 271-285 – Municipal Waste Regulations)

IV. Definitions:

- A. ACUTELY HAZARDOUS WASTE –Those specific wastes identified in 40 CFR 261.33(e)
See **Attachment D** for a copy of the P Listed Waste.
- B. CONTAINER – Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.
- C. CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR – A generator which generates less than 100 kilograms of hazardous waste and less than 1 kilogram of acutely hazardous waste in any calendar month.
- D. GENERATOR – Any person, by site, whose act or process produces hazardous waste identified or listed in 40 CFR 261 or whose action first causes a hazardous waste to become subject to regulation. For the purposes of this policy, generator shall refer to Robert Morris University.
- E. HAZARDOUS WASTE – Hazardous Waste as defined in 40 CFR 261.3. A waste may be identified as “hazardous” if it meets any of the following:
 - 1. Specifically Listed Chemical/Material Waste. The waste is specifically listed as a hazardous waste by the Environmental Protection Agency (see 40 CFR 261).
 - 2. EPA has listed waste in the following categories.

- a) EPA “D” Listed Waste
 - b) EPA “P” Listed Waste
 - c) EPA “U” Listed Waste
 - d) EPA “F” Listed Waste
2. Chemicals/Materials that meet specific Hazardous Waste Characteristics:
- a) Ignitability = materials with flash points less than 140F (60C).
 - b) Corrosivity = materials with a pH less than 2 or greater than 12.5. Local regulations restrict materials with a pH of no less than 5.0.
 - c) Reactivity = materials that tend to be unstable at normal temperatures and pressures or materials that react violently when exposed to air, mixed with water, or other chemicals releasing acutely toxic fumes or gases (water reactive, unstable or explosive, or cyanide, sulfide containing, etc.).
 - d) Toxicity = materials which contain heavy metals or organic constituents in excess of the EPA regulated limits (heavy metals, VOC’s, see 40 CFR 261.24).
- F. HAZARDOUS WASTE PRODUCER (OR PRODUCER) – An individual directly responsible for projects, activities, or operations that generate hazardous or potentially hazardous waste.
- G. INCOMPATIBLE WASTE – A hazardous waste which is unsuitable for: (1) placement in a particular device or facility because it may cause corrosion or decay of containment material (e.g., container inner liners or tank walls); or (2) commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes or gases, or flammable fumes or gases.
- H. MANIFEST – The multicopy shipping document EPA Form 800-22 and, if necessary, EPA Form 8700-22A, or approved State manifest(s), originated and signed by the generator in accordance with the instruction included in the Appendix to 40 CFR 262.
- I. SATELLITE ACCUMULATION AREA/STATION – A hazardous waste collection station at or near any point of generation where wastes initially accumulate under the control of the operator of the process generating the waste. Satellite collection stations must comply with the requirements specified under 40 CFR 262.34 (c).
- J. SMALL QUANTITY GENERATOR (SQG) – A generator who generates less than 1,000 kilograms of hazardous waste and less than 1 kilogram of acutely hazardous waste in a month.

V. Procedure:

A. WASTE CHARACTERIZATION:

1. Waste Determination:

Is the material a hazardous or non-hazardous waste?

All chemical wastes generated in laboratories are presumed to be hazardous waste. Robert Morris University may retract this presumption by reviewing available information regarding the material, or by characterizing the waste via analytical testing. The results of the review/testing are compared with the definitions established for toxicity, ignitability, corrosivity, and reactivity.

It is important to remember that no personnel are permitted to treat hazardous waste in order to dispose of it, with one exception termed “Elementary Neutralization”. If a waste is corrosive by EPA definition ($12.5 < \text{pH} < 2.0$), and no other hazardous waste constituents exist in solution, then the solution may be neutralized and disposed of by sink. This treatment must be a written part of the actual laboratory procedure or experiment. Slowly add a weak acid or weak base to adjust the pH in the desired direction.

2. Waste Determination Form:

- (a) A waste generator must determine if a material must be considered a hazardous waste by referencing the definitions listed above. Waste may be hazardous if the material is specifically listed as a “K”, “F”, “U”, “P” listed waste or the material exhibits any one of the four hazardous waste characteristics (ignitable, corrosive, reactive, or toxic).
- (b) Prior to disposal of a regulated waste, a “**Hazardous Waste Determination Form**” must be filled out completely and accurately. The Hazardous Waste Determination Forms is found in **Attachment A**.

3. Waste Mixtures:

- (a) Mixtures of non-hazardous waste and hazardous waste must be classified as hazardous waste according to prevailing regulation and the above noted procedures. In addition, materials (i.e., rags, wipes, cotton swabs, etc.) that have been saturated with hazardous chemicals are typically considered hazardous waste (once intended for disposal) and must be stored in compatible containers for proper disposal.

B. HAZARDOUS WASTE GENERATION & MANAGEMENT:

1. General:

Federal and State regulations indicate that hazardous waste may be accumulated and/or stored at a facility “Satellite Accumulation Area” or a “Central Accumulation Area.” Each hazardous waste producer at RMU shall follow the procedures below to ensure safety and compliance within their respective area(s).

2. Satellite Accumulation Areas and Waste Containers:

- a) Containers used for storage of hazardous waste must be in good condition, free of leaks, and be made or lined with materials which will not react with the waste being stored.
- b) Containers used to accumulate or store hazardous waste must always be kept closed, except when adding or removing waste from the container.
- c) Incompatible waste shall not be placed in the same container and containers of incompatible waste materials shall be appropriately segregated. Segregation may be achieved by using plastic bins or trays.
- d) Containers should not be filled in excess of 90% of the container capacity (to allow for possible expansion).
- e) Hazardous waste (containers) must be managed to prevent accidental release to the environment, such as floor drains, sinks, sanitary sewer, etc. This is achieved by using Secondary Containment. Secondary containment must hold at least 110% of the largest container within.

- f) The collective accumulation at a Satellite Accumulation Area (SAA) may **not** exceed 55 gallons of hazardous waste or 1 quart of acutely hazardous waste.
 - g) If accumulation is greater than (f) above, containers must be moved to a Central Storage Area within 3 days of being full.
3. Hazardous Waste Identification and Labeling:
- a) Hazardous waste producers must properly contain and identify all hazardous or potentially hazardous wastes at the point of generation. If there is any question or doubt whether a waste is hazardous, it shall be treated as hazardous until a determination is made (per 40 CFR 262.11). You can contact the Safety Officer for assistance or hazardous waste labels.
 - b) Each hazardous waste (container) must be labeled with:
 - The words “Hazardous Waste”
 - The accumulation “start date”
 - The contents within. The complete name is required – the chemical formula or abbreviations are not acceptable.
4. On-Site Accumulation and Storage:
- a) The amount of waste permitted to accumulate shall be based on the types and quantities of waste accumulating. In no case will the amount of hazardous waste accumulated exceed regulatory requirements as specified below (per 40 CFR 262.34).
 - A “conditionally exempt small quantity generator” generates less than 220 lbs (100 kg) of hazardous waste during any calendar month and accumulates less than 2,200 lbs of waste on-site at any time.
 - A “small quantity generator” may generate between 100 kg and 1,000 kg of hazardous waste or 1 kg of acutely hazardous waste during a calendar month and no more that 6,000 kg stored on-site at any one time. RMU may not store hazardous waste at these quantities for greater than 180 days.
 - b) The use of satellite accumulation stations shall be permitted where appropriate. These stations shall comply with all the requirements specified in 40 CFR 262.34 (c). Waste producers shall be responsible for maintaining the stations.
 - c) To monitor and document the quantity of hazardous waste generated collectively and at each SAA, generators should use the attached “Satellite Accumulation Area – Hazardous Waste Log” (**Attachment B**).
5. Accumulation Area and Container Inspections:
- a) Each hazardous waste producer should conduct regular (weekly) inspections of all designated hazardous waste Satellite Accumulation Areas. Weekly inspections are required at Central Accumulation Areas. Inspection shall be documented using the Inspection Checklist for Hazardous Waste Accumulation Areas (**Attachment C**). The checklists shall be maintained in an inspection log for at least 3 years from the date of inspection.

C. PREPARATION FOR TRANSPORTATION:

1. Each hazardous waste producer must coordinate with the RMU Safety Office for the off-site transportation and disposal of hazardous waste.
2. All waste materials must be prepared for transportation and disposal including packaging, labeling and completion of appropriate waste manifest.

D. TRANSPORTATION:

1. Robert Morris University shall contract with licensed hazardous waste transporters to transport hazardous waste off-site to appropriate TSDFs or other appropriate hazardous waste management facilities (e.g., reclamation or recycling facilities).

E. ULTIMATE TREATMENT, STORAGE, AND DISPOSAL:

1. Robert Morris University shall contract with and use licensed or permitted hazardous waste management companies (e.g., treatment, storage, and disposal facilities, reclamation facilities, recycling facilities, etc.) to ultimately treat, store, dispose, recover, recycle, or otherwise manage hazardous waste from the University in accordance with all applicable regulatory requirements.

F. WASTE MANIFEST:

1. The hazardous waste manifest is a multi-part and multi-copy document that must be used to document the shipment of hazardous waste off-site. The manifest documents the complete “cradle-to-grave” processing of hazardous waste. A “bill of lading” may be obtained for Universal and similar regulated waste.
2. The hazardous waste manifest will be signed by an appropriate RMU representative and the designated hazardous waste transporter prior to the waste leaving the site. Only properly trained RMU personnel are permitted to sign the hazardous waste manifest.
3. Copies of all waste manifests must be forwarded to the Environmental Health & Safety office. Copies must be maintained for a period of at least 3 years.

G. HAZARDOUS WASTE EMERGENCIES:

1. Each hazardous waste producer must establish procedures and identify an individual who will be on-site or on-call to respond to emergencies (such as a fire, spill, etc.).
2. Hazardous waste producers must post emergency information next to the telephone including, name and phone number of the emergency coordinator, location of fire extinguisher & spill/response equipment and RMU Public Safety (412) 397-2424.

H. HAZARDOUS WASTE MINIMIZATION:

1. All hazardous waste producers should consider steps to minimize the quantity of waste being generated.
2. Substitution to reduce or eliminate the amount of hazardous materials used in the process.
3. Use good management practices such as, purchasing only limited quantities of hazardous materials.
4. Identify opportunities to redistribute quantities of unused materials to other areas/departments.

VI. Responsibilities:**A. DEPARTMENT OR LABORATORY MANAGERS/SUPERVISORS WHERE HAZARDOUS WASTE ARE GENERATED:**

1. Each hazardous waste producer must identify a location for waste accumulation – “satellite accumulation area.”
2. Conduct assessments to monitor safe work practices, compliance with established policies/procedures and conduct weekly inspections of the “satellite accumulation area.”
3. Maintain an accurate and up-to-date inventory of all hazardous waste.
4. Coordinate with the Safety Officer to ensure that hazardous waste is prepared for off-site transportation and disposal during regularly scheduled pick-up.
5. Ensure personnel who handle hazardous waste are provided training regarding hazardous waste operations, including training for personnel who sign hazardous waste manifest.
6. Ensure that all personnel within your department/area of responsibility comply with the Hazardous Waste Management & Disposal Policy.

B. ENVIRONMENTAL HEALTH & SAFETY (EH&S) DEPARTMENT:

1. EH&S will work with the Hazardous Materials Subcommittee in the development and implementation of the hazardous waste policy.
2. EH&S will review hazardous waste policy/procedures and serve as a resource to all University departments and personnel.
3. EH&S shall be responsible of oversight of all aspects of the Hazardous Waste Management Policy and shall oversee all phases of hazardous waste management and disposal.
4. EH&S shall serve as the point of contact for Federal, State, and local regulatory agencies and other organizations as necessary with regard to hazardous waste management and disposal issues at Robert Morris University.
5. Conduct weekly inspections of central accumulation areas where applicable (per 265.174).

C. HAZARDOUS WASTE PRODUCERS:

1. Individuals directly responsible for projects or operations generating hazardous or potentially hazardous waste shall be designated as hazardous waste producers or simply producers. Examples of potential producers include, but are not limited to, laboratories, studios, photo labs, shops, maintenance areas, etc.
2. Hazardous waste producers shall have full responsibility for managing wastes that they generate from the moment of generation until the waste is transferred to a central accumulation area or is released for off-site transportation and disposal.
3. Hazardous wastes producers shall be responsible for transferring waste from the point of generation to the satellite accumulation station to the designated hazardous waste accumulation area in accordance with the requirements of this policy.
4. Hazardous waste producers shall comply with all the applicable requirements for the accumulation of hazardous waste as specified in the procedures section of this policy.

5. Hazardous waste producers must ensure that all hazardous or potentially hazardous wastes are properly contained and identified at the point of generation. Producers shall be fully responsible for proper containment and identification of wastes and shall be held accountable for wastes that are not properly contained or identified or are otherwise mismanaged.
6. Hazardous waste producers shall be responsible for completing a hazardous waste identification label and must attach a properly completed label to every container of hazardous or potentially hazardous waste.

D. HAZARDOUS WASTE CONTRACTORS:

1. Where appropriate, Robert Morris University shall utilize the services of licensed hazardous waste management and disposal companies on a contractual basis to accomplish the requirements set forth in this policy.
2. Contractors shall be required to comply with all applicable laws and regulations.
3. Potential services shall include, but not be limited to, the following:
 - a) Packaging, containerizing, and/or lab packing wastes for transportation.
 - b) Marking and labeling containers of hazardous waste for transportation.
 - c) Providing and completing all required manifests and shipping papers for transportation. Loading and unloading wastes onto and off of waste transport vehicles.
 - d) Transporting wastes off-site to appropriate hazardous waste management facilities (e.g., TSDFs, reclamation facilities, recycling facilities, etc.).
 - e) Providing placards and placarding waste transport vehicles.
 - f) In-transit storage of waste as needed during transportation.
 - g) Ultimate treatment, storage, disposal, reclamation, recycling, or otherwise managing hazardous waste from Robert Morris University.

VII. Training & Education:

- A. All employees who generate, handle, package, or otherwise manage hazardous or potentially hazardous waste at Robert Morris University will be trained in accordance with the regulatory requirements specified in 40 CFR 265.16 – Personnel Training.
- B. At a minimum the training program must be designed to ensure that University personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems.
- C. Designated personnel shall successfully complete the training program within six months after the date of their employment or assignment to a facility or position involving any aspect of hazardous waste management.
- D. Designated personnel shall not work in unsupervised positions involving any aspect of hazardous waste management until they have successfully completed the training program.
- E. Designated personnel shall take part in an annual review of the initial training program.



VIII. Documentation & Recordkeeping:

- A. Robert Morris University shall comply with all the regulatory requirements for recordkeeping and reporting as specified in 40 CFR 262, Subpart D.
- B. Each waste manifest must be maintained for a period of at least 3 years
- C. Records of any test results/waste analysis for a period of at least 3 years.
- A. Incidents must be properly reported and documented. An “Incident Investigation and Recordkeeping Form” as found in the Safety Management Section must be used to document such incidents



ATTACHMENT A Hazardous Waste Determination Form

| | | | | |
|---|---|---|---|--|
| A. WASTE DESCRIPTION: | | | | |
| | | | | |
| Generation Process: | | | | |
| Generation Location and/or system: | | | Total Quantity and/or Estimated Generation rate: | |
| | | | | |
| B. WASTE PROPERTIES, CHARACTERISTICS AND CONSTITUENTS: | | | | |
| Physical State: | | | | pH: |
| <input type="checkbox"/> Solid <input type="checkbox"/> Solid w/freestanding or absorbed liquid <input type="checkbox"/> Liquid (if liquid, indicate if the liquid is: <input type="checkbox"/> Single Layer <input type="checkbox"/> Multi-layer <input type="checkbox"/> Gas | | | | <input type="checkbox"/> ≤ 5 <input type="checkbox"/> > 5 but <12.5 <input type="checkbox"/> ≥ 12.5 |
| | | | | Flashpoint: |
| | | | | <input type="checkbox"/> < 140°F <input type="checkbox"/> > 140°F but <200°F <input type="checkbox"/> > 200° |
| Characteristics: | Asbestos Content: | PCB Content: | Metal Content: | |
| <input type="checkbox"/> Corrosive <input type="checkbox"/> Ignitable <input type="checkbox"/> Reactive <input type="checkbox"/> Radioactive | <input type="checkbox"/> Friable <input type="checkbox"/> Non-Friable <input type="checkbox"/> None | <input type="checkbox"/> >5 ppm <input type="checkbox"/> <5 ppm <input type="checkbox"/> None | <input type="checkbox"/> Antimony* <input type="checkbox"/> Chromium <input type="checkbox"/> Molybdenum <input type="checkbox"/> Vanadium* <input type="checkbox"/> Arsenic <input type="checkbox"/> Cobalt* <input type="checkbox"/> Nickel* <input type="checkbox"/> Zinc* <input type="checkbox"/> Barium <input type="checkbox"/> Copper <input type="checkbox"/> Selenium <input type="checkbox"/> Beryllium* <input type="checkbox"/> Lead <input type="checkbox"/> Silver <input type="checkbox"/> None <input type="checkbox"/> Cadmium <input type="checkbox"/> Mercury <input type="checkbox"/> Thallium | |
| <input type="checkbox"/> *Check if these metals (or metal compounds) are friable, powdered or finely divided state. | | | | |
| Composition (list all constituents, including debris, any absorbent, freestanding liquid, or absorbed liquid): | | | | |
| Constituent: | Volume % (range) | Constituent: | Volume (range) | % |
| | | | | |
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| | | | | |
| C. REMARKS (Attach all applicable documentations describing the waste (e.g. process knowledge statement, MSDS, manufacturer's specifications, sample analysis, etc.): | | | | |
| | | | | |
| | | | | |
| | | | | |
| D. REQUESTOR'S CERTIFICATION (By signing the form, the requestor certifies (based on knowledge or certified records) that all information is complete and accurate to the best of his/her knowledge): | | | | |
| REQUESTOR NAME/SIGNATURE: | DEPT./GROUP: | EXT.: | DATE: | |
| | | | | |



ATTACHMENT A
Hazardous Waste Determination Form

| FOR WASTE MANAGEMENT USE ONLY | | |
|--|---------------------------------|--------------------------------|
| <input type="checkbox"/> Sample analysis Required (specify): | | |
| Hazardous Classification: <input type="checkbox"/> Non-Hazardous <input type="checkbox"/> RCRA Waste <input type="checkbox"/> Non-RCRA Waste (CA Haz Waste) <input type="checkbox"/> TSCA Waste | EPA Waste Codes: | CA Waste Codes: |
| Remarks: | | |
| WM NAME/SIGNATURE: | EXT: | DATE: |



Attachment C

Inspection Checklist for Hazardous Waste Accumulation Areas

General

| | |
|--|---|
| 1. Is adequate communication equipment available to notify both site personnel as well as off-site emergency response agencies, e.g., police, fire departments? [40 CFR 265.32(a) & (b)] | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 2. Are portable fire extinguishers readily available and in working order? [40 CFR 265.32(c)] | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 3. Is adequate safety and emergency equipment readily available, easily accessible, and in use if required? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 4. Is adequate spill response equipment and materials readily available and easily accessible? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 5. Is all operating and structural equipment, i.e., concrete pads, dikes, sump pumps, etc., well maintained and functioning properly? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| <i>Use and Management of Containers:</i> | |
| 1. Are containers of hazardous waste present? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 2. Is the date upon which each period of accumulation begins clearly marked and visible on each container? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 3. While being accumulated on site, is each container or tank labeled & marked clearly with the words "Hazardous Waste"? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 4. While being accumulated on site, is each container or tank labeled & marked clearly with the contents of the hazardous waste within? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 5. Are all containers in good condition, i.e., not showing signs of leakage or corrosion or any other deterioration or deformation? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 6. Are secondary containers used to prevent accidental spills/release to the environment? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 7. Are all containers holding hazardous waste kept closed during storage? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 8. Are incompatible wastes properly segregated? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 9. Are all waste compatible with the storage container used? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| <i>Comments:</i> | |
| | |
| | |
| | |

Note: All items marked as "no" require immediate corrective action, which must be documented in the comments.



ATTACHMENT C

The following materials are hazardous wastes if and when they are intended to be discarded (40 CFR 261.33):

Any commercial chemical products, or manufacturing chemical intermediate having the generic name listed below.
 Any specification commercial chemical or product or chemical intermediate having the generic name listed below.
 Any residue remaining in a container that is not empty. P-coded containers must have their contents removed and be triple rinsed with an appropriate solvent before they are legally empty and no longer regulated.
 Any residue resulting from the clean-up of a spill of a P-coded waste.
 The phrase "commercial chemical product or manufacturing chemical intermediate having a generic name listed below" refers to a chemical substances 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.

| Hazardous Waste No. | Chemical Abstracts No. | Chemical Name |
|---------------------|------------------------|--|
| 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 |
| P007 | 2763-96-4 | 5-(Aminomethyl)-3-isoxazolol |
| P008 | 504-24-5 | 4-Aminopyridine |
| P009 | 131-74-8 | Ammonium Picrate |
| P119 | 7803-55-6 | Ammonium Vanadate 4 |
| P099 | 506-61-6 | Argentate (1-), bis(cyano-C-), potassium |
| P010 | 7778-39-4 | Arsenic acid (H3AsO4) |
| P012 | 1327-53-3 | Arsenic oxide (As2O3) |
| P011 | 1303-28-2 | Arsenic oxide (As2O5) |
| P011 | 1303-28-2 | Arsenic pentoxide |
| P012 | 1327-53-3 | Arsenic trioxide |
| P038 | 692-42-2 | Arsine, diethyl- |
| P036 | 696-28-8 | Arsenous 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]- |
| 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 | 81-81-2 | 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3% |



ATTACHMENT C

| Hazardous Waste No. | Chemical Abstracts No. | Chemical Name |
|---------------------|------------------------|---|
| P028 | 100-44-7 | Benzyl chloride |
| P015 | 7740-47-7 | 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 |
| 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-[(diethylamino)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 5 |
| 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 (202CuCN) |
| 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 (CNCl) |
| P034 | 131-89-5 | 2-Cyclohexyl-4,6-dinitrophenol |
| P016 | 542-88-1 | Dichloromethyl ether |
| P036 | 696-28-6 | Dichlorophenylarsine |
| P037 | 60-57-1 | Dieldrin |
| P038 | 692-42-2 | Diethylarsine |
| P041 | 311-45-5 | Diethyl-p-nitrophenyl phosphate |
| P040 | 297-97-2 | O,O-Diethyl O-pyrazinyl phosphorothioate |
| P043 | 55-91-4 | Diisopropylfluorophosphate (DFP) |
| P004 | 309-00-2 | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a,-hexahydro-(1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- |
| P060 | 465-73-6 | 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-,(1alpha,4alpha,4abeta,5beta,8beta,8abeta)- |
| 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- |
| P051 | 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,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)-,(1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)-, & metabolites |
| P044 | 60-51-5 | Dimethoate |
| P046 | 122-09-8 | alpha,alpha-Dimethylphenethylamine |
| P191 | 644-64-4 | Dimetilan |
| P047 | 534-52-1 | 4,6,Dinitro-o-cresol, & salts |
| P048 | 51-28-5 | 2,4,-Dinitrophenol |
| P020 | 88-85-7 | Dinoseb |
| P085 | 152-16-9 | Diphosphoramide, octamethyl- |
| P111 | 107-49-3 | Diphosphoric acid, tetraethylester |
| P039 | 298-0404 | Disulfoton |



ATTACHMENT C

| Hazardous Waste No. | Chemical Abstracts No. | Chemical Name |
|---------------------|------------------------|--|
| 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 6 |
| P051 | 72-20-8 | Endrin, & metabolites |
| P042 | 51-43-4 | Epinephrine |
| P031 | 460-19-5 | Ethanedinitrile |
| P194 | 23135-22-0 | Ethanimidothioc acid, 2 (dimethylamino)-N-[[[(methylamino) carbonyl] oxy]-2-oxo-, methyl ester |
| P066 | 16752-77-5 | Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester |
| P101 | 107-12-0 | Ethyl cyanide |
| P054 | 151-56-4 | Ethyleneimine |
| P097 | 52-85-7 | Famphur |
| P056 | 7782-41-4 | Fluorine |
| P057 | 640-19-7 | Fluoroacetamide |
| P058 | 62-74-8 | Fluoroacetic acid, sodium salt |
| P198 | 23422-53-9 | Formetanate hydrochloride |
| P197 | 17702-57-7 | Formparanate |
| P065 | 628-86-4 | Fulminic acid, mercuric salt |
| 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(dimethylcarbamodithioato-S,S') |
| P196 | 15339-36-3 | Manganese dimethyldithiocarbamate |
| P092 | 62-38-4 | Mercury, (acetato-O)phenyl- |
| P065 | 628-86-4 | Mercury fulminate |
| 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- |
| P118 | 75-70-7 | Methanethiol, trichloro- |
| P198 | 23422-53-9 | Methanimidamide, N,N-diemthyl-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-tetrahydro7 |
| 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 |



ATTACHMENT C

| Hazardous Waste No. | Chemical Abstracts No. | Chemical Name |
|---------------------|------------------------|--|
| P190 | 1129-41-5 | Metolcarb |
| P128 | 315-08-4 | Mexacarbate |
| P072 | 86-88-4 | alpha-Naphthylthiourea |
| P073 | 13463-39-3 | Nickel carbonyl (NiCO) |
| P074 | 557-19-7 | Nickel cyanide (NiCN) |
| P075 | 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 (NO2) |
| P081 | 55-63-0 | Nitroglycerine |
| P082 | 62-75-9 | N-Nitrosodimethylamine |
| P084 | 4549-40-0 | N-Nitrosomethylvinylamine |
| P085 | 152-16-9 | Octamethylpyrophosphoramidate |
| P087 | 20816-12-0 | Osmium Tetroxide (OsO4) |
| 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 | 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 |
| 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)-, methylcarbamate |
| P201 | 2631-37-0 | Phenol, 3-methyl-5-(1-methylethyl)-, methylcarbamate |
| 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 (KCN) |
| 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- |



ATTACHMENT C

| Hazardous Waste No. | Chemical Abstracts No. | Chemical Name |
|---------------------|------------------------|---|
| P069 | 75-86-5 | Propanenitrile, 2-hydroxy-2-methyl- |
| P081 | 55-63-0 | 1,2,3,-Propanetriol, trinitrate |
| 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 | 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 (thallous) salt |
| P103 | 630-10-4 | Selenourea |
| P104 | 506-64-9 | Silver cyanide (AgCN) |
| P105 | 26628-22-8 | Sodium azide |
| P106 | 143-33-9 | Sodium cyanide (NaCN) |
| P108 | 57-24-9 | Strychnidin-10-one, & salts |
| P018 | 357-57-3 | Strychnidin-10-one, 2,3-dimethoxy- |
| P108 | 57-24-5 | Strychnine & salts |
| P115 | 7446-18-6 | Sulfuric acid, dithallium (thallous) salt 9 |
| P109 | 3689-24-5 | Tetraethyldithiopyrophosphate |
| P110 | 78-00-2 | Tetraethyl lead |
| P111 | 107-49-3 | Tetraethyl pyrophosphate |
| P112 | 509-14-8 | Tetranitromethane |
| P062 | 757-58-4 | Tetraphosphoric acid, hexaethyl ester |
| P113 | 1314-32-5 | Thallic oxide |
| P113 | 1314-32-5 | Thallium oxide (Tl ₂ O ₃) |
| P114 | 12039-52-0 | Thallium (I) selenite (thallous selenite) |
| P115 | 7446-18-6 | Thallium (I) sulfate (thallous sulfate) |
| P109 | 3689-24-5 | Thiodiphosphoric acid, tetraethyl ester |
| P045 | 39196-18-4 | Thiofanox |
| P049 | 541-53-7 | Thioimidodicarbonic diamide (H ₂ NCS) ₂ NH |
| 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 ₂ O ₅) vanadium pentoxide |
| P084 | 4549-40-0 | Vinylamine, N-methyl-N-nitroso- |
| P001 | 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 [Zn (CN) ₂] |
| P122 | 1314-84-7 | Zinc phosphide (Zn ₃ P ₂) when in concentrations greater than 10% |
| P205 | 137-30-4 | Ziram |