

HAZARDOUS MATERIALS PICKUP AND DISPOSAL PROCEDURES

Appendix 6

Hazardous materials are defined as those materials that are: flammable, corrosive, air or water reactive or toxic (see [Definitions of Hazardous Materials](#) below). Environmental Health, Safety, and Risk Management (EHS&RM), Hazardous Materials Section, is charged with the responsibility of removing all hazardous materials, used and unused, from UAF facilities. Materials picked up by EHS&RM are recycled, used by someone else, or disposed of at an EPA approved facility. The complete disposal procedure is found under UAF Policy 601 Hazardous Materials Management Procedure.

TO HAVE HAZARDOUS MATERIALS REMOVED FROM YOUR AREA, YOU MUST:

- Communicate the need for the removal of hazardous materials or other chemicals by utilizing the UAF Hazardous Materials Transfer Request Forms which are available upon request from the EHS&RM Hazmat Section.
- Fill out and affix required hazardous material label on containers and promptly place in approved hazardous material collection areas.
- At the time when the accumulation of a material begins, the date should be clearly marked and visible for inspection (mark “satellite accumulation start date” on transfer label).
- Complete the three-part UAF Hazardous Material Transfer Request Form for each type of waste.
- Contact EHS&RM Hazmat to schedule a pickup (474-5617).
- Give the white and yellow copies of the transfer request form to the EHS&RM Hazmat personnel when they come to pick up the wastes. Retain the pink copy of request form for department records.

PROCEDURES FOR PROPERLY COLLECTING, STORING, HANDLING AND TRANSPORTING HAZARDOUS MATERIALS:

- Keep all hazardous materials in appropriate closed containers with airtight lids. Do not store hazardous materials in a fume hood. Keep all hazardous material containers closed at all times except when adding or removing the material.
- Do not mix incompatible chemicals (i.e. oxidizers with flammables).
- Do not mix hazardous materials with non-hazardous materials. It greatly increases waste disposal costs.
- Accurately label all containers with chemical names and exact content as well as date of purchase. It is imperative to avoid producing containers whose contents are unknown. Such materials are very expensive to dispose of. If containers of unknown chemicals are found, please contact EHS&RM Hazmat Section to make special arrangements.

PACKAGING REQUIREMENTS FOR ALL HAZARDOUS MATERIALS

- The outside of the containers must be clean and free of chemical contamination.
- Use appropriate containers. All glass containers must be securely packaged to prevent breakage during transport.
- All containers of liquids must have screw lids and must not leak when inverted. Corks, cotton plugs, tape, or parafilm are not acceptable lids for containers of hazardous materials.
- If possible, use the same container for disposal of used material that held the new material originally.
- Metal cans are not acceptable for accumulating hazardous solvents - except for waste oil.
- Loose solid materials must be placed in a sealed container or in a cardboard box lined with two polyethylene bags.
- Containers storing hazardous materials must be kept closed, except when adding or removing contents.

DEFINITIONS OF HAZARDOUS MATERIALS

Hazardous materials are those that "could cause injury or death; or damage or pollute land, air, or water." Hazardous wastes are defined as substances that are ignitable (flammable), corrosive, toxic, explosive, or reactive, i.e., react with air, water, or acids or bases. Specific definitions are found in the Code of Federal Regulations: 40CFR part 261. These are summarized below.

Ignitable: This category contains materials that are easily combustible or flammable. This includes liquids that have a flash point less than 60C (140F), and non-liquids that are capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical change and when ignited burn so vigorously and persistently that they create a hazard, and any ignitable compressed gas described in 40 CFR 173.300. Examples are solvents and spent solvents (acetone, benzene, ethyl acetate, ethyl ether, methanol, methyl isobutyl ketone, xylene); ignitable paint waste (some paint removers, brush cleaners, and stripping agents; epoxy resins and adhesives (epoxies, rubber cements and marine glues); inks containing flammable solvents, and some degreasers. For additional information see [40 CFR 261.21](#).

Corrosive: This category includes acids and bases or mixtures having a pH less than or equal to 2 or greater than or equal to 12.5, and materials that burn the skin or dissolve metals. Examples are strong mineral acids (chromic, sulfuric, hydrochloric, or nitric) strong alkalis (potassium hydroxide), rust removers, and acid or alkaline cleaning fluids. This category also includes solids that when mixed with water form solutions that are strongly acidic or basic (ferric chloride, sodium hydroxide). For additional information see [40 CFR 261.22](#)

Reactive: This category includes materials that are unstable or undergo rapid or violent chemical reaction when exposed to air, water or other material, generate toxic gases or vapors when mixed with water or when exposed to pH conditions between 2 and 12.5 (as in the case with cyanide or sulfide containing materials), forms potentially explosive mixtures with water, are capable of detonation or explosive reaction when heated or subjected to shock. Examples are acetyl chloride, chromic acid, cyanides, hypochlorides, organic peroxides, perchlorates, permanganates, sulfides, some plating materials and bleaches. For additional information see 40 CFR 261.23

Toxic: This category includes heavy metal compounds such as: arsenic, barium, cadmium, chromium, lead, mercury, silver, selenium, etc. Pesticides such as, Aldrin, arsenic pentoxide, arsenic trioxide, cacodylic acid, chlordane, copper cyanides, DDT, Dieldrin, dimethylcarbamoyl chloride, Endrin, Lindane, pentachlorophenol, strychnine, etc.

Pathogenic, Carcinogenic, Infectious, and Etiologic agents: Includes any material that directly cause health problems such as, "a viable microorganism, or its toxin, which causes or may cause disease in humans or animals" (41 CFR 173.134). Infectious waste includes bloodborne pathogens (for example, hepatitis or AIDS virus). For more information on infectious agents, contact the UAF Biosafety Officer at 474-6771.

Sharps: Sharps are defined as any non-contaminated sharp object that can penetrate the skin, including, but not limited to: broken capillary tubes and pipettes, blades from power tools, glass microscope slides and cover plates, and hypodermic and non-hypodermic needles.

There may be other hazardous substances that are not included here. It is your responsibility to determine if the materials you use are hazardous to human health or the environment. If you have any doubt, tag it for pickup and EHS&RM Hazmat Section will dispose of it appropriately.

You can find information about your material by looking at the Material Safety Data Sheet, available from the manufacturer. You should have Material Safety Data Sheets accessible for all substances you utilize.