

Chemical and Waste – Hazard Determination

The Maine Department of Environmental Protection regulates the disposal of all substances which pose a substantial hazard to human health or the environment. Hazard information for chemical waste can be found by reading the product(s) Safety Data Sheet(s) and by applying the definitions below. If your waste meets one or more of the characteristics below then it is considered to be “Hazardous Waste” and it must be stored in a designated place called a “Satellite Accumulation Area.” Please contact Safety and Environmental Management (SEM) at 581-4055 or via email at sem@maine.edu if you have any questions about your waste or requirements for maintaining it.

IGNITABILITY

Flammable Solid - any readily combustible materials or materials capable of spontaneous combustion.

Flammable Liquid - any liquid with a flash point below 141°F.

Flammable Compressed Gas - any material which is a gas at or below 68°F (20°C) or has a boiling point of 68°F (20°C); and is ignitable at a concentration 13% or less by volume or has a flammability range of at least 12% (regardless of the lower flammability limit)

Oxidizer - a substance that stimulates the combustion of cellulose (e.g. Nitric acid, Potassium bromate).

Organic Peroxide - organic compounds that contain the -O-O- functional group.

CORROSIVITY

Aqueous Acid - an aqueous solution with a pH less than or equal to 2.

Aqueous Base - an aqueous solution with a pH greater than or equal to 12.5.

Corrosive, other - liquids that corrode steel or Aluminum at a rate of 0.25 inches or more per year at 130°F (55°C); or a solid which may exhibit corrosive properties when mixed with water.

REACTIVITY

Explosive - any substance or device which could undergo a substantially instantaneous release of gas or heat by detonation or combustion.

Pyrophoric - chemicals which ignite spontaneously upon exposure to air.

Water Reactive - substances which react violently, form explosive mixtures, or generate toxic gasses when mixed with water.

Reactive, Other - a substance which is normally unstable and readily undergoes violent change without detonating; or a substance that is capable of detonation if heated in confinement or subjected to a strong initiation source.

TOXICITY

Compressed Gas Poison – a compressed gas which when released is dangerous to life in very small exposure amounts

Poison Liquid or Solid - liquids or solids that are dangerous to life or pose a serious health hazard by inhalation, absorption through the skin, or ingestion.

EP Toxicity / TC - Extraction Procedure/Toxicity Characteristic – Chemicals and solutions containing any of the following toxic chemicals above the specified levels:

	(mg/l)		mg/l)		(mg/l)
Arsenic	5	1,2-Dichloroethane	0.5	Methyl ethyl ketone	200
Barium	100	1,1-Dichloroethylene	0.7	Nitrobenzene	2
Benzene	0.5	2,4-Dinitrotoluene	0.13	Pentachlorophenol	100
Cadmium.....	1	Endrin	0.02	Pyridine	5
Carbon Tetrachloride	0.5	Heptachlor (epoxide).....	0.008	Selenium	1
Chlordane	0.03	Hexachlorobenzene	0.13	Silver	5
Chlorobenzene	100	Hexachlorobutadiene	0.5	Tetrachloroethylene	0.7
Chloroform	6	Hexachloroethane	3	Toxaphene	0.5
Chromium	5	Lead	5	Trichloroethylene	0.5
Cresol	200	Lindane	0.4	2,4,5 Trichlorophenol	400
2,4-D	10	Mercury	0.2	2,4,6 Trichlorophenol	2
1,4-Dichlorobenzene	7.5	Methoxychlor	10	2,4,5 TP (Silvex)	1
				Vinyl chloride.....	0.2

Toxic, Other - Other Chronic or Acutely toxic substances not listed as EP Toxic/TC or Poisonous (These include: PCB's > [50 ppm], Dioxin containing wastes, heavy metals, carcinogens, mutagens, tetratogens, embryo-fetotoxins, marine pollutants, pesticides not listed above, allergens/sensitizing agents *et.al.*).

LISTED HAZARDOUS WASTE

Halogenated and non-halogenated spent solvents (used in a process) - waste codes F001-F0005: Examples are trichloroethylene, xylene, methyl ethyl ketone, benzene, acetone, toluene, methylene chloride, and 1, 1, 1-trichloroethane.

Unused, commercial chemical products, intermediates or off-specification products - There are two (2) sources:

- **Acute wastes - waste codes P001-P158:** Examples of these acute wastes are copper cyanide, chlorine, and epinephrine.
- **Non-acute wastes - waste codes U001-U359:** Examples of these wastes are phenol, ethanol, and naphthalene.

ADDITIONAL PHYSICAL AND HEALTH HAZARDS

These may include compressed gas cylinders, cryogenic substances, infectious agents, radioisotopes, FDA controlled substances, and others.