NDSU NORTH DAKOTA STATE UNIVERSITY

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A Guide to Chemical Clean Outs

University Police and Safety Office

What Can I Dispose?

Unwanted or Expired Chemicals

- Pesticides
- Paint (Oil or Latex based)
- Cleaning Chemicals (e.g. drain cleaner, detergents)
- Laboratory Chemicals (e.g. solvents, solid chemicals)
- The Safety Office will collect almost ANY* chemicals!

*Chemicals must be in a durable container with a screwed-on lid. No unknown chemicals can be collected.



Before You Begin...

- Contact the Safety Office
 - Phone: (701) 231-7759

- Waste Minimization
 - Check with colleagues to ensure no one can use the unwanted chemicals before disposal.
 - Reduce waste generation whenever possible.



Step 1: Create an Inventory

- Create an inventory of all the chemicals you want to dispose of.
 - Include Full Chemical Name, CAS Number (if available), Any Notes on Compound (Manufacturer, Condition, etc.)
 - Email Inventory To: ndsu.wastehandlingprogram@ndsu.edu

Compound	Amount	CAS Number	Composition Information (SDS Section 3)	Hazard Class (Primary)	(Secondary)	NOTES (Condition, Manufacturer)
Sulfuric Acid	2 L	7664-93-9		Acid		Alfa Aesar
Phosphoric acid	4 L	7664-38-2		Acid		Sigma
Toluene	2 L	108-88-3		Flammable	Toxic	Alfa Aesar
Formaldehyde 37%	500 mL	50-00-0		Flammable	Toxic	Sigma
1, 4 - Dioxane	100 mL	603-024-00-5		Flammable	Toxic	POSSIBLE PEROXIDE FORMER
Tetrahydrofuran	4 L	8498-08		Flammable	Toxic	POSSIBLE PEROXIDE FORMER
Potassium permanganate	100 g	7722-64-7		Oxidizer	Toxic	Sigma
Ammonium Persulfate	100 g	7727-54-0		Oxidizer	Toxic	EMD OmniPur
Potassium Nitrate 99%	500 g	7757-79-1		Oxidizer		Alfa Aesar
1-Methyl-2-pyrrolidinone	1 kg	872-50-4		Toxic	Flammable	Sigma
perfluoro-compound fc-72™	5 kg	355-42-0	Perfluoro-n-hexane	Toxic	Irritant	Sigma
Sodium Azide	50 g	26628-22-8		Toxic	reactive	Sigma
Calcium Carbonate	50 g	471-34-1		Non Hazardous		JT Baker
NaCl	4 kg	7647-14-5		Non Hazardous		JT Baker



Step 2: Categorize Chemicals

Hazard Class Identification:

- Categorize your chemicals into Hazard Classes
 - Toxic (T)
 - Flammable (F)
 - Oxidizer (O)
 - Water Reactive (W)
 - Acid (A)
 - Caustic (C)
 - Halogenated Solvent (H)
- The Safety Office can assist in proper chemical categorization and review of disposal inventory.



Step 3: Separate Chemicals

- Separate Chemicals Based on Hazard Class and Package into Sturdy Boxes.
 - Only chemicals in the same hazard class can be packaged in the same box.
 - Example: Flammables can only be placed in a box with other flammables.
 - Never store chemicals from two different hazard classes in the same box. (e.g. Never place an acid and caustic in the same box)



Step 3: Separate Chemicals

(Continued)

- The Safety Office will provide boxes.
- Do not over-pack boxes.
 - Do not stack chemicals on top of each other.

Guidelines for Packaging:

- Don't mix hazard classes!
- Don't stack chemicals.
- Ensure containers are intact and have a tight screw lid.
- Make sure all chemicals are labelled.



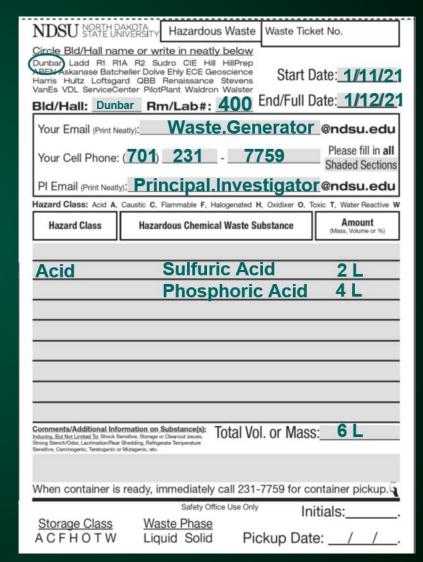
Do not stack Chemicals!



Properly Packaged!

Step 4: Label Containers

- Fill out a "Hazardous Waste Ticket" for each Box
- Must Include:
 - Full Chemical Name of <u>Each</u>
 Chemical in the Container
 - Quantity
 - Mass of Solid or Volume of Liquid
 - Hazard Classification
 - Toxic, Flammable, Acid, etc...





Step 5: Call for a Pick-up

- Attach a completed "Hazardous Waste Ticket" to each box.
- Call 231-7759 to request a pick-up.



Chemical Clean Out Box Ready for Pick-up

