


Safe Method of Use HSNO Class 8 - Corrosives

	8.1 Substances Corrosives To Metals	8.1A: Substances Corrosive to Metals
	8.2 Substances Corrosive to Dermal Tissue	8.2A: Skin corrosive, high hazard 8.2B: Skin corrosive, moderate hazard 8.2C: Skin corrosive, low hazard
	8.3 Substances Corrosive to Occular Tissue	8.3A: Eye Corrosive

Please note:

- *UN Class 5 compounds and Toxic compounds may have very corrosive properties (eg Perchloric acid and Phenol).*
- *Concentrated nitric is a strong oxidising agent and **shall** be stored and handled appropriately.*
- *See specific Safe Method of Use for Hydrofluoric Acid*

A. INCOMPATIBILITIES

- HSNO Class 8 compounds *shall* not be stored with HSNO Class 3, 4 or 5 compounds.

B. STORAGE

- Strong mineral acids can react violently with organic compounds and bases.
- HSNO Class 8 compounds *shall* not be stored with HSNO Class 3, 4 or 5 compounds.
- Acids *shall* be stored separately from alkalis.
- All liquid corrosives *shall* be stored within cabinet/cupboard fitted with secondary containment capable of retaining at least half the volume of liquid corrosive stored.
- All containers of strong mineral acids and phosphorous and sulphur halides *shall* be checked annually to ensure adequate labeling.

C. USE

- Fume hoods *shall* always be used when handling concentrated acids
- Safety Glasses and/or face shields *shall* always be worn when handling any corrosive liquid or solid.
- When diluting acid, ALWAYS add acid to water ("A comes before W") not water to acid.
- Strong mineral acids can react violently with organic compounds and bases.

D. PERSONAL PROTECTIVE EQUIPMENT

- Fume hoods *shall* always be used when handling concentrated acids
- Eye protection and/or face shields *shall* always be worn when handling corrosives
- Face shields, plastic coats and rubber gloves should be worn when handling bulk acids

E. DISPOSAL

- Concentrated acids or bases *shall* never be discharged to sewer
- Disposal of concentrated acids or bases *shall* be undertaken by a licensed chemical waste contractor

- Please contact Health and Safety Office to arrange for disposal.

F. SPILLS

- Use correct gloves
- Neutralise acids with a large volume of sodium bicarbonate or sodium carbonate which will neutralise and absorb liquid leaving a solid which can be swept up.
- Neutralise alkali spills with dilute acetic acid and absorb with absorbent or sawdust.
- Use absorbent material in spill kits to wipe up solvent – wiping from outside of spill toward centre
- Place used absorbent material in impermeable/airtight container
- Inform Laboratory Manager and arrange for immediate disposal

Appendix 1: Representative List of UN Class 8 - Corrosives

Acids

Organic Acids and derivatives

Acetic acid	Acetic anhydride	Acetyl Bromide
Acetyl iodide	Benzenesulfonyl chloride	Benzoyl chloride
n-Butyric acid	n-Butyric anhydride	Bromoacetic acid
NN-Dimethylcarbamoyl chloride	Diphenylmethyl Bromide	Formic acid
Propionic acid	Propenoic acid	Propionic anhydride
Thioglycolic acid	Thymol	Toluene trichloride
Trichloroacetic acid	Trifluoroacetic acid	

Mineral Acids

Fluoroboric acid
Hydrobromic acid
Hydrofluoric acid
Orthophosphoric acid
Tetrachloroauric acid

Fluorophosphoric acid
Hydroiodic acid
Hydrophosphorous acid
Sulphuric Acid

Fluorosilicic acid
Hydrochloric Acid
Nitric Acid
Sulphurous acid

Other Acidic compounds

Aluminium bromide
Antimony pentafluoride
Boron trifluoride
Chromium oxychloride
Iodine trichloride
Phosphorous pentoxide
Phosphoryl bromide
Potassium hydrogen sulfate
Sodium hydrogen difluoride
Sulfuryl chloride
Vanadium oxytrichloride
Zinc chloride

Aluminium chloride
Antimony trichloride
Bromine
Copper (II) chloride
Iron (III) chloride
Phosphoryl tribromide
Phosphorous pentabromide
Potassium sulphide
Sodium sulphide
Thionyl chloride
Tin (IV) chloride
Vanadium tetrachloride

Antimony pentachloride
Boron Tribromide
Chromium fluoride
Iodine chloride
Molybdenum pentachloride
Phosphorous trioxide
Phosphoryl trichloride
Silicon tetrachloride
Sulfur trioxide
Vanadium trichloride

Bases

Ammonia
Ammonium hydrogen difluoride
Caesium hydroxide
Potassium hydroxide
Sodium hydroxide
2-(2-Aminoethylpiperazine)
N,N-Dimethylbenzylamine
Di (n-butyl)amine
Diethylenetriamine
2-Dimethylaminoethanol
Diprolylenetriamine
Ethylenediamine
Hydrazine
Propylenediamine
Tributylamine
Trimethylcyclohexylamine

Ammonium cerium sulphate
Ammonium polysulphide solution
Lithium hydroxide
Sodium hypochlorite
Tetramethylammonium hydroxide
N-aminoethylpiperazine
Cyclohexylamine
Dicyclohexylamine
N,N-Diethylenediamine
N,N-Dimethylcyclohexylamine
Ethanolamine
Hexamthylenediamine
Hydrazine hydrate
Tetraethylenepentamine
Triethylenetetramine
Trimethylhexamthylenediamine