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

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

- Acids shall be stored separately from alkalis.

- Strong mineral acids can react violently with organic compounds and bases and shall not be stored with bases or organic compounds.

- All containers of strong mineral acids and phosphorous and sulphur halides shall be checked annually to ensure adequate labelling.

- Refer to SMOU for Oxidisers for specific recommendations concerning perchloric acid.

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.
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 Hazards and Containment Manager 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
- Acetyl iodide
- n-Butyric acid
- n-Butyric anhydride
- NN-Dimethylcarbamoyl chloride
- Propionic acid
- Thioglycolic acid
- Trichloroacetic acid

Acetyl anhydride
Benzenesulfonyl chloride
n-Butyryl anhydride
Diphenylmethyl Bromide
Propenoic acid
Thymol
Trifluoroacetic acid

Mineral Acids
- Fluoroboric acid
- Hydrobromic acid
- Hydrofluoric acid
- Orthophosphoric acid
- Tetrachloroauric acid

Fluorophosphoric acid
Hydriodic acid
Hydrophosphorous acid
Sulphuric Acid
Sulphurous acid

Other Acidic compounds
- Aluminium bromide
- Antimony pentfluoride
- 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
Vanadium tetrachloride

Antimony pentachloride
Boron Tribromide
Chromium fluoride
Iodine chloride
Molybdenum pentachloride
Phosphorous trioxide
Phosphoryl trichloride
Silicon tetrachloride
Sulfur trioxide
Tin (IV) chloride

Bases
- Ammonia
- Ammonium polysulphide solution
- Potassium hydroxide
- Tetramethylammonium hydroxide
- NN-Dimethylbenzylamine
- Dicyclohexylamine
- 2-Dimethylaminoethanol
- Ethanolamine
- Hydrazine
- Tetraethylenepentamine
- Trimethylcyclohexylamine

Ammonium cerium sulphate
Caesium hydroxide
Sodium hypochlorite
2-(2-Aminoethylpiperazine)
Cyclohexylamine
Diethylenetriamine
N,N-Dimethylcyclohexylamine
Ethylenediamine
Hydrazine hydrate
Tributylamine
Trimethylhexamethylenediamine

Ammonium hydrogen difluoride
Lithium hydroxide
Sodium hydroxide
N-aminoethylpiperazine
Di (n-butyl)amine
N,N-Diethylenediamine
Dipropylenetriamine
Hexamethylenediamine
Propylenediamine
Triethylenetetramine