

Appendix 4 – Common Corrosives

Organic Acids

Formic Acid
Acetic Acid (Glacial)
Propionic Acid
Butyric Acid
Chloroacetic Acid
Trichloroacetic Acid
Acetyl Chloride
Acetyl Bromide
Chloroacetyl Chloride
Oxalic Acid
Propionyl Chloride
Propionyl Bromide
Acetic Anhydride
Methyl Chloroformate
Dimethyl Sulfate
Chlorotrimethylsilane
Dichlorodimethylsilane
Phenol
Benzoyl Chloride
Benzoyl Bromide
Benzyl Chloride
Benzyl Bromide
Salicylic Acid

Organic Bases

Ethylenediamine
Ethylimine
Tetramethylethylenediamine
Hexamethylenediamine
Trimethylamine aq. soln.
Triethylamine
Phenylhydrazine
Piperazine
Hydroxylamine
Tetramethylammonium Hydroxide

Elements

Fluorine (gas)
Chlorine (gas)
Bromine (liquid)
Iodine (crystal)
Phosphorus

Inorganic Bases

Ammonium Hydroxide
Calcium Hydroxide
Sodium Hydroxide
Potassium Hydroxide
Calcium Hydride
Sodium Hydride
Hydrazine
Ammonium Sulfide
Calcium Oxide

Inorganic Acids

Hydrofluoric Acid
Hydrochloric Acid
Hydrobromic Acid
Hydriodic Acid
Sulfuric Acid
Chromerge™
No-Chromix™
Chlorosulfonic Acid
Sulfuryl Chloride
Bromine Pentafluoride
Thionyl Chloride
Tin Chloride
Tin Bromide
Titanium Tetrachloride
Perchloric Acid
Nitric Acid
Phosphoric Acid
Phosphorus Trichloride
Phosphorus Tribromide
Phosphorus Pentachloride
Phosphorus Pentoxide

Acid Salts

Aluminum Trichloride
Antimony Trichloride
Ammonium Bifluoride
Calcium Fluoride
Ferric Chloride
Sodium Bisulfate
Sodium Fluoride

References:

- The Foundations of Laboratory Safety*, S.. R. Rayburn, 1990.
- Prudent Practices for Handling Hazardous Chemicals in Laboratories*, National Research Council, 1981.
- Improving Safety in the Chemical Laboratory*, 2nd Ed., J. A. Young, 1991.
- Material Safety Data Sheets, various chemical companies.