

Principal Investigator: _____

Date Approved: _____

Corrosives

Corrosives are materials that cause the destruction of exposed tissues and mucous membranes. They can be encountered as solids, pure liquids, solutions, or gases. Strong corrosive solutions typically have a pH <2.5 (acids) or >11 (bases), and include inorganic or organic substances dissolved in water. Corrosives cause damage either through the presence of hydronium (H_3O^+) or hydroxide (OH^-) ions in solution, reaction with skin and eye moisture to generate these same ions, or by damaging cell membranes through lipophilic action (e.g. certain detergents). **All corrosives can cause serious eye damage or skin burns in the event of an exposure.**



Chemicals covered by this Standard Operating Procedure **do not** include corrosives with additional hazardous properties (e.g. hydrofluoric acid, nitric acid, corrosive flammables, tetramethylammonium hydroxide).

Personal Protective Equipment & Personnel Monitor

Lab Coat	Gloves	Eye Protection/Face Shield
		 
Traditional white lab coat and chemical-resistant apron when working with large volumes.	Nitrile or neoprene gloves. Consult glove selection chart for heavy handling of corrosives. Do not wear latex gloves.	ANSI Z87.1-compliant safety glasses or safety goggles, or face shield if a splash hazard is present.

Labeling & Storage

Store upright & tightly closed in a dry and well-ventilated place. Keep away from incompatible materials (e.g. segregate acids and bases). Consult the safety data sheet for additional storage compatibility information. Storing strong acids and bases in chemically-resistant secondary containers (e.g. polypropylene trays or tubs) is advised. Containers holding corrosives must be stored below eye level. Also, if not plainly visible (e.g. through a cabinet window), labeling must be applied to storage locations where these are stored to avoid an inadvertent encounter.

Engineering Controls, Equipment, & Materials

Fume Hood

Use a fume hood to keep exposure to corrosives as low as possible. If your protocol does not permit the handling of such materials in a fume hood, contact EH&S to determine whether additional respiratory protection is warranted.

Housekeeping

Spills

Keep acid and/or base neutralizer (e.g. sodium bicarbonate and/or citric acid) in your spill kit. Notify others in the area of the spill, including your supervisor. Refer to the TWU Chemical Hygiene Plan for specific spill procedures if the volume is small and there is no inhalation hazard.

For **large spills**, evacuate the location where the spill occurred. Call 911 and alert TWU DPS (940-898-2911 in Denton; 214-689-6666 in Dallas; 832-870-6128 in Houston). Report any exposure to EH&S at 940-898-4001. Remain on-site (at a safe distance) to provide detailed information to first responders.

Decontamination

Clean contaminated surfaces with soap and water. Dispose of contaminated paper towels as solid hazardous waste.

Waste

Refer to the TWU Chemical Hygiene Plan for details.

First Aid & Emergencies

Skin or Eye Contact

Remove contaminated clothing and accessories; flush the affected area with water. If symptoms persist, seek medical attention.

Inhalation

Move affected individual(s) into fresh air. If symptoms persist, seek medical attention.

Ingestion

Rinse mouth with water. If symptoms persist, seek medical attention.

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