

U n i v e r s i t y o f C a l i f o r n i a  
 Environmental  
 Health and Safety  
 Chemical Safety Update  
 S a n F r a n c i s c o

pub# CSU4

**INCOMPATIBLE MATERIAL**

Certain combinations of chemicals are explosive, poisonous, or extremely hazardous in some way. Most chemicals are listed on the Material Safety Data Sheet (MSDS) in the following manner:

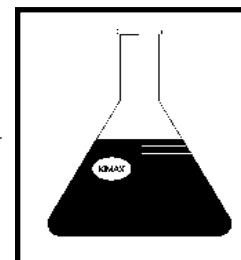


Chemicals which are listed in different chemical classes must NEVER be stored together. The following list is a sample of some of the more hazardous combinations.

**Do Not Contact:**

**With Any of the Following:**

Alkali Metals: Calcium [Ca] Potassium [K] Sodium [Na]	Carbon Dioxide [CO <sub>2</sub> ] Carbon Tetrachloride [CCl <sub>4</sub> ] Other Chlorinated Hydrocarbons Water [H <sub>2</sub> O]	
Acetic Acid [H <sub>3</sub> C-COOH]	Chromic Acid [CrO <sub>3</sub> ] Ethylene Glycol [HOCH <sub>2</sub> CH <sub>2</sub> OH] Nitric Acid [HNO <sub>3</sub> ] [OH]-Containing Compounds	Perchloric Acid [HClO <sub>4</sub> ] Peroxides [O <sub>2</sub> ] Permanganates [MnO <sub>4</sub> ]
Acetone [H <sub>3</sub> C-CO-CH <sub>3</sub> ]	Concentrated Sulfuric Acid [H <sub>2</sub> SO <sub>4</sub> ] Nitric Acid [HNO <sub>3</sub> ]	
Acetylene [C <sub>2</sub> H <sub>2</sub> ]	Copper Tubing [Cu] Mercury [Hg] or its Compounds Silver [Ag]	
Ammonia-Anhydrous [NH <sub>3</sub> ]	Calcium Hypochlorite [Ca(OCl) <sub>2</sub> ] Mercury [Hg]	
Ammonium Nitrate [NH <sub>3</sub> NO <sub>3</sub> ]	Acids Chlorates [ClO <sub>3</sub> ] Finely Divided Organics Flammable Liquids	Metal Powders Nitrates [NO <sub>3</sub> ] Sulfur [S] Other Combustibles
Chlorates [ClO <sub>3</sub> ]	Ammonia Salts Acids Carbon [C] Finely Divided Organics Metal Powders	Sulfur [S] Other Combustibles
Chromic Acid [CrCO <sub>3</sub> ]	Acetic Acid [H <sub>3</sub> C-COOH] Alcohols [R-OH] Glycerine [C <sub>3</sub> H <sub>5</sub> (OH) <sub>3</sub> ] Naphtahlene [C <sub>10</sub> H <sub>8</sub> ] Other Flammable Liquids	



**Do Not Contact:****With Any of the Following:**

Cyanide [CN]	Acids	
Hydrogen Peroxide [H <sub>2</sub> O <sub>2</sub> ]	Aniline [C <sub>6</sub> H <sub>5</sub> -NH <sub>2</sub> ] Chromium [Cr] Copper [Cu] Iron [Fe] Nitromethane [CH <sub>3</sub> NO <sub>2</sub> ]	Flammable Liquids Most Metals and Their Salts
Hydrogen Sulfide [H <sub>2</sub> S]	Nitric Acid [HNO <sub>3</sub> ] Oxidizing Gases	
Hydrocarbons	Bromic Acid [HBrO <sub>3</sub> ] Sodium Peroxide [Na <sub>2</sub> O <sub>2</sub> ]	
Mercury [Hg]	Acetylene [C <sub>2</sub> H <sub>2</sub> ]	
Nitric Acid [HNO <sub>3</sub> ]	Acetic Acid [H <sub>3</sub> C-COOH] Carbon [C] Chromic Acid [CrCO <sub>3</sub> ]	Hydrogen Sulfide [H <sub>2</sub> S] Flammable Gases and Liquids Substances Readily Nitrated
Perchloric Acid [HClO <sub>4</sub> ]	Acetic Anhydride Alcohols [R-OH] Paper	Wood Other Organic Materials
Potassium Permanganate [KMnO <sub>4</sub> ]	Benzaldehyde [C <sub>7</sub> H <sub>10</sub> O] Ethylene Glycol [HOCH <sub>2</sub> CH <sub>2</sub> OH]	Glycerine [C <sub>3</sub> H <sub>5</sub> (OH) <sub>3</sub> ] Sulfuric Acid [H <sub>2</sub> SO <sub>4</sub> ]
Sodium Peroxide [Na <sub>2</sub> O <sub>2</sub> ]	Oxidizable Substances: Carbon Disulfide [CS <sub>2</sub> ] Ethylene Glycol [HOCH <sub>2</sub> CH <sub>2</sub> OH]	Glacial Acetic Acid [CH <sub>3</sub> COOH] Glycerine [C <sub>3</sub> H <sub>5</sub> (OH) <sub>3</sub> ] Methanol [H <sub>3</sub> COH]
Sulfuric Acid [H <sub>2</sub> SO <sub>4</sub> ]	Chlorates [ClO <sub>3</sub> ] Perchlorates [ClO <sub>4</sub> ]	Permanganates [MnO <sub>4</sub> ] Water [H <sub>2</sub> O]