

Appendix I

Chemical Compatibility Table

Chemical Class:	Incompatible with:
Acids (inorganic) Nitric acid, sulfuric acid, hydrochloric acid, hydrofluoric acid, perchloric acid	Bases: sodium hydroxide Other: potassium cyanide
Acids (organic) Glacial acetic acid, ethanoic acid, phenol	Bases: potassium hydroxide, sodium hydroxide Other: potassium cyanide Oxidizing agents: hydrogen peroxide, nitric acid, perchloric acid, potassium hypochlorite, potassium perchlorate
Alkali Metals Lithium, sodium, potassium	Chlorinated hydrocarbons: Chloroform Halogens: iodine Other: carbon dioxide, water
Bases (caustic) Potassium hydroxide, sodium hydroxide	Acids (organic): acetic acid, phenol Acids (inorganic): nitric acid, sulfuric acid, hydrochloric acid, hydrofluoric acid, perchloric acid Flammable solvents (hydrocarbons): acetone, acetonitrile (ACN), benzene, ethanol, diethyl ether, isopropanol, methanol, methyl ethyl ketone (MEK), tetrahydrofuran (THF)
Chlorinated hydrocarbons Carbon tetrachloride, dichloromethane (methylene chloride), chloroform	Alkali Metals: lithium, sodium, potassium Bases: sodium hydroxide Other: plastics, rubber
Combustibles liquids and solids Diesel, vacuum oil, grease	Oxidizing agents: hydrogen peroxide, nitric acid, perchloric acid, potassium hypochlorite, potassium perchlorate
Hydrocarbons (flammable solvents) Acetone, acetonitrile (ACN), alcohols, toluene, diethyl ether, methanol, methyl ethyl ketone (MEK), tetrahydrofuran (THF)	Bases (caustic): potassium hydroxide, sodium hydroxide Oxidizing agents: hydrogen peroxide, nitric acid, perchloric acid, potassium hypochlorite, potassium perchlorate
Halogenated hydrocarbons Carbon tetrachloride, chloroform, methylene chloride	Alkali Metals: lithium, sodium, potassium Bases: sodium hydroxide, potassium hydroxide Metals: aluminum, manganese Oxidizing agents: nitric acid Other: plastics, rubber
Halogens Fluorine, chlorine, bromine, iodine	Hydrocarbons (flammable solvents): acetone, acetonitrile (ACN), toluene, ethanol, diethyl ether, isopropanol, methanol, methyl ethyl ketone (MEK), tetrahydrofuran (THF)
Metals aluminum, copper, gold, iron, mercury, silver, zinc	Acids (organic): acetic acid Bases (caustic): potassium hydroxide, sodium hydroxide Oxidizing agents: nitric acid Other: sodium azide
Oxidizing agents Oxygen, chlorine, hydrogen peroxide, nitric acid, perchloric acid, potassium hypochlorite, potassium perchlorate	Acids (organic): acetic acid Combustible liquids and solids: oils and grease Hydrocarbons (flammable solvents): Acetone, alcohols