

**HS624****Dangerous Goods Incompatibility Table****UNSW**  
AUSTRALIA

This table is reproduced from the CCH Laboratory Safety Manual courtesy of CCH Australia Ltd.

The following substances may react violently when mixed with other chemicals and must be kept apart. The list is not exhaustive. Refer to the SDS for specific incompatibilities.

Chemical	Not compatible with
Acetic acid	Chromium (VI) oxide, nitric acid, alcohols, ethylene glycol, perchloric acid, peroxides, permanganates.
Acetylene	Chlorine, bromine, fluorine, copper, silver, mercury.
Activated charcoal	Calcium hypochlorite, oxidising agents.
Alkali metals	Water, carbon tetrachloride and other halogenated alkanes, carbon dioxide halogens.
Aluminium alkyls	Water.
Ammonia, laboratory gas	Mercury (eg in pressure gauges), chlorine, calcium hypochlorite, iodine, bromine, hydrogen fluoride.
Ammonium nitrate	Acids, powdered metals, flammable liquids, chlorate, nitrates, sulphur, fine particulate organic or combustible material.
Analine	Nitric acid, hydrogen peroxide.
Bromine	See chlorine.
Chlorates	Ammonium salts, acids, powdered metals, sulphur, fine particulate organic or combustible substances.
Chlorine	Ammonia, acetylene, butadiene, butane, methane, propane, hydrogen, petroleum benzine, benzene, powdered metals.
Chromium (VI) oxide	Acetic acid, naphthalene, camphor, glycerol, petroleum spirit, alcohols, flammable liquids.
Copper	Acetylene, hydrogen peroxide.
Cumene hydro-peroxide	Acids, both organic and inorganic.
Cyanides	Acids.
Flammable liquids	Ammonium nitrate, chromium (VI) oxide, hydrogen peroxide, nitric acid, sodium peroxide.
Fluorine	Store separately.
Hydro-carbons	Fluorine, chlorine, bromine, chromiu (VI) oxide, sodium peroxide.

Hydrogen Fluoride	Ammonia, laboratory gas or liquid.
Hydrogen peroxide	Copper, chromium, iron, metals and metal salts, alcohols, acetone, organic substances, analine, nitromethane, combustible substances.
Hydrogen sulphide	Fuming nitric acid, oxidising gases.
Iodine	Acetylene, ammonia (laboratory gas or solution).
Mercury	Acetylene, ammonia.
Nitric acid, conc	Acetic acid, analine, chromium (VI) oxide, prussic acid, hydrogen sulphide, flammable liquids and gases.
Oxalic acid	Silver, mercury.
Perchloric acid	Acetic anhydride, bismuth and its alloys, alcohols, paper and wood.
Phosphorus	Sulphur, oxygen containing compounds such as chlorates.
Potassium	See alkali metals.
Potassium chlorate	See chlorates.
Potassium Permanganate	Glycerol, ethylene glycol, benzaldehyde, sulphuric acid.
Silver	Acetylene, oxalic acid, tartaric acid, ammonium compounds.
Sodium	See alkali metals.
Sodium peroxide	Methanol, ethanol, glacial acetic acid, anhydride, benzaldehyde, carbon disulphide, glycerol, ethylene glycol, ethyl and methyl acetate, furfural.
Sulphuric acid	Potassium chlorate, potassium perchlorate, potassium permanganate.