Chemicals that are Banned in APS Schools

Chemicals used in the laboratory may be hazardous because of the following: Safety risks (i.e., highly flammable or explosive material); Acute and chronic health hazards; Environmental harm Impairment of indoor air quality. Assessment of the chemicals in this list indicates that their hazardous nature is greater than their potential usefulness. Evaluation included physical hazards (i.e., flammability, explosive propensity, reactivity, corrosivity) and health hazards (i.e., toxicity, carcinogenicity). This following list of chemicals was generated from the Manual of Safety and Health Hazards in the School Science Laboratory published by U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health [1984]. Carcinogenic substances were identified from the Report on Carcinogens (10th Edition) generated by the National Toxicology Program [2002].

This list will change with updates from NIOSH Specific hazards are available in the NIOSH Lab Safety Guide.

Acrylonitrile
Ammonium chromate
Ammonium dichromate
Aniline
Aniline hydrochlorate
Anthracene
Antimony trichloride
Arsenic and its compounds
Asbestos
Ascarite II
Benzene
Benzoyl peroxide
Bromine
Calcium cyanide
Carbon disulfide
Carbon tetrachloride
Chloral hydrate
Chlorine
Chloroform
Chloropromazine
Chromium hexavalent compounds
Chromium trioxide
Colchicine
Cyanide salts
p-Dichlorobenzene
Dimethylaniline
p-Dioxane
Ethylene dichloride
(1,2-Dichloroethane)
Ethidium bromide
Ethyl ethers
Ethylene oxide

Formaldehyde
Gunpowder
Hexachlorophene
Hydrobromic acid
Hydrofluoric acid
Hydrogen
Hydriodic acid
Lead arsenate
Lead carbonate
Lead (VI) chromate
Lithium, metal
Lithium nitrate
Magnesium, metal
Mercury (pure liquid)
Mercuric chloride
Methyl iodide
(Methyl methacrylate)
Methyl orange
Methyl red
Nickel, metal
Nickel oxide
Nicotine
Osmium tetroxide
Paris green
Phenol
Phosphorus pentoxide
Phosphorous, red, white
Phthalic anhydride
Potassium, metal
Potassium oxalate
Potassium sulfide
Pyridine
Selenium

Silver cyanide
Silver nitrate (except for teacher demonstrations)
Silver oxide
Sodium arsenate
Sodium arsenite
Sodium azide
Sodium chromate
Sodium cyanide
Sodium dichromate
Sodium nitrite
Sodium sulfide
Sodium thiocyanide
Stannic chloride
Stearic acid
Strontium
Strontium nitrate
Sudan IV
Sulfuric acid, fuming
Tannic acid
Tetrabromoethane
Thioacetamide
Thiourea
Titanium trichloride
Titanium tetrachloride
o-Toluidine
Toluene
Uranyl acetate
Urethane
Vinyl chloride
Xylene
Wood’s metal