



# HAZARDOUS CHEMICAL CLASSIFICATION

Managing Chemicals at  
Secondary Schools

**Environmental  
Health and  
Safety Office**  
**2019 June**



# CLASS I CHEMICAL LIST

## Prohibited Hazardous Substances

### *Partial List*

Generally, chemicals listed below **SHOULD NOT BE ORDERED UNDER ANY CIRCUMSTANCES**; however, they may be approved on a "per case basis," by contacting the Environmental Health & Safety (EHS) Office. They are prohibited from use in the school district. This list is maintained by the EHS Office and is amended frequently. Items not specifically listed in Class II or Class III may be prohibited so contact the EHS Office for confirmation at (858) 627-7174.

Acetic Anhydride	Ethyleneimine
Acrylonitrile	Ethylene Oxide
2-Acetylaminofluorine	Formaldehyde
Acrylamide (neuro toxin)	Hydrazine
4-Aminodiphenyl	Hydrofluoric acid
Ammonium Sulfide	Hydrogen Peroxide (7 -32 percent)
Amyl Aletate (isoamyl) Aniline	Lead acetate
Aniline, Hydrochloride	Lead arsenate
Anthracene	Mercuric Chloride
Antimony Pentachloride	Mercury, Metal
Antimony Trichloride	Mercuric Nitrate
Antimony Trioxide	Mercurous Nitrate
Antimony Trisulfide (Antimony sulfide)	Methylchloromethyl ether
Arsenic, and compounds	Methyl Iodide
Arsenic Pentoxide	4,4-Methylenebis (2-Chloroaniline)
Arsenic Trichloride	2-Methylaniline
Arsenic Trioxide	Methylene Chloride
Asbestos	a-Napthylamine
Benzaldehyde	b-Napthylamine
Benzene	Nickel powder and compounds
Benzidine (and its salts)	Nicotine Sulfate
Benzoyl Chloride	Nitrobenzene
Benzoyl Peroxide	4- Nitrobiphenyl
Beryllium and its compounds	Osmium Tetroxide
Beryllium Carbonate	b-Propiolactone
Bis (chloromethyl) Ether	Perchloric Acid
Cadmium and its compounds	Phosphorus (white and yellow)
Cadmium Acetate	Picric Acid
Cadmium Chloride	Potassium Cyanide
Cadmium Sulfate	Powdered metals
Carbon Disulfide	Pyridine
Carbon Tetrachloride	Radioactive compounds
Catechol (1,2-Dihydroxy-benzene)	Silver Cyanide
Chloroform	Sodium Arsenate
Chromium II, IV and all compounds	Sodium Arsenite
Chromic Nitrate, in solution	Sodium Azide
Cobalt	Sodium Cyanide
Cobalt II oxide	Tetrahydrofuran
Colchicine	Thioacetimide
p-Dichlorobenzene	Thiourea
3-3, Dichlorobenzidine and salts	o-Toluidine
Diisopropyl Ether	Trichloroethylene
4-Dimethylaminoazobenzene	Uranium and its compounds
N, N, Dimethylaniline	Vinyl Chloride
Ethylene Dichloride (1,2 Dichloroethane)	Zinc, metal, dust

# CLASS II CHEMICAL LIST

## Restricted Hazardous Substances

**Restricted Chemicals - Special Conditions Apply:** Some chemicals listed may be linked to health hazards such as cancer or reproductive toxicity. Contact the Environmental Health & Safety (EHS) Office for further information regarding safe usage of these substances. Any chemical not specifically listed may be approved on a per case basis by contacting the EHS Office at (858) 627-7174.

**CLASS II CHEMICALS ARE TO BE USED ONLY FOR DEMONSTRATION PURPOSES, PREPARED AND PRESENTED ONLY BY INSTRUCTORS WHO ARE FAMILIAR WITH THEIR HAZARDOUS PROPERTIES. THESE CHEMICALS ARE TO BE SECURED WHEN NOT IN USE AND ARE NOT TO BE RETAINED LONGER THAN ONE (1) YEAR FROM THE DATE OF PURCHASE. QUANTITIES SHOULD BE KEPT AT A MINIMUM.**

Acetic Anhydride	Manganese Nitrate (Manganous)
Aluminum Nitrate	Magnesium Dioxide (Magnesium peroxide)
Ammonium Dichromate	Magnesium Hydroxide
Ammonium Nitrate	Magnesium, Metal
Antimony, metal	Magnesium Nitrate
Barfoed Reagent	Methylene Iodide
Barium Chlorate	Nickel Nitrate
Barium Nitrate	Nickel Sulfate, crystals
Barium Peroxide	Phthalic anhydride
Barium Sulfide	Phenol
Bismuth Nitrate	Phosphorus Pentoxide
Bouin's Fluid	Potassium Chlorate
Bromine Water	Potassium Dichromate
Calcium, metal, flakes	Potassium, Metal, lumps (limit 4 oz. or 113 gm)
Calcium Carbide	Potassium Nitrate
Calcium Nitrate	Potassium Permanganate
Carbolic Acid (Phenol)	Potassium Sulfide
Chromium Chloride, in solution	Pyrogallic Acid
Cobalt Nitrate	Resorcinol
Cobaltous nitrate	Silver Acetate
Cupric (Copper) Nitrate	Schiff Reagent
Ethyl Acetate	Sodium Chlorate
Ferric Nitrate	Sodium Dithionate (Sodium hydrosulfite)
Ferrous Sulfide	Sodium Metabisulfite
Formalin (limit 1 gal)	Sodium, metal, lumps, (limit 4 oz. or 113gm)
Formic Acid	Sodium Nitrate
Hayem's Solution	Sodium Nitrite
Hydrogen (gas)	Sodium Permanganate
Hydrogen Peroxide 4%-20%	Sodium Peroxide
Hydrogen Sulfide	Sodium Sulfide
Hydroquinone	Sodium Sulfide (anhydrous)
Iron Filings	Strontium Nitrate
Lead Dioxide	Titanium, metal
Lead Nitrate	Tungsten, metal
Lead Sulfide	Zinc Nitrate
Lithium, metal, lumps, (limit 4 oz. or 113 gm)	Zirconium Nitrate
Lithium Nitrate	

# CLASS III CHEMICAL LIST

## Approved Hazardous Substances

The following chemicals are approved for student usage.

**WARNING:** Some chemicals listed may be linked to health hazards such as cancer or reproductive toxicity. Contact the Environmental Health & Safety (EHS) Office for further information regarding safe usage of these compounds. Any chemical not specifically listed may be approved on a per case basis by contacting the EHS Office at (858) 627-7174.

Acacia (gum arabic)	N-amyI Alcohol
Acetamide	Aniline Blue
Acetanilide	Antimony Potassium Tartrate
Acetic acid (glacial, limit 2 gals)	Arabinose
Aceto Carmine	Ascarite II
Acetone	Ascorbic Acid
Aceto Orcein (Orcinol)	Balsam
Adenine	Barium Acetate
Agar	Barium Carbonate
Albumin	Barium Chloride
Alizarin Yellow	Barium Hydroxide
Alizarin Red (Red #1)	Barium Oxalate
Alkaline-Iodide Sol'n #1	Barium Oxide
Alkaline-Iodide Sol'n #2	Barium Sulfate
Alum	Beeswax
Aluminum Ammonium Sulfate	Benedict's Solution
Aluminum Chloride, hydrated	Benzoic Acid
Aluminum Chloride, anhydrous	6- Benzylaminopurine
Aluminum Hydroxide	Solution
Aluminum, metal	Bial salts
Aluminum Oxide	Bismuth Trichloride (Bismuth III chloride)
Aluminum Potassium Sulfate	Biuret Reagent
Aluminum Sodium Sulfate	Borax (Sodium Borate)
Aluminum Sulfate	Boric Acid
Ammonia, liquid	Brilliant Green
Ammonium Acetate	Bromocresol Green
Ammonium Bicarbonate	Bromocresol Purple
Ammonium Bromide	Bromophenol Blue
Ammonium Carbonate	Bromothymol Blue
Ammonium Chloride	Buffer Solutions
Ammonium Citrate	Caffeine
Ammonium Hydroxide (limit 2 gals)	Calcium Acetate
Ammonium Iodide	Calcium Bromide
Ammonium Metavanadate (Ammonium vanadate)	Calcium Carbonate
Ammonium Molybdate	Calcium Chloride
Ammonium Oxalate	Calcium Fluoride
Ammonium Oxidate	Calcium Hydroxide
Ammonium Persulfate	Calcium Hypochlorite
Ammonium Phosphate	Calcium Oxide
Ammonium Sulfate	Calcium Phosphate
Ammonium Tartrate	Calcium Sulfate
Ammonium Thiocyanate	Camphor Gum
Amylase	

Carbon	Ferric Sulfate
Carbon Dioxide(gas)	Ferrous Ammonium Sulfate
Carmine	Ferrous Chloride
Carrageenan	Ferrous Oxide
Casein	Ferrous Sulfate
Catalase	Feulgen Stain
Charcoal	Flagella Stain
Chloretone	Flourescein
Chlorionic Gonadatropin	Fructose
Citric Acid	Fuchsin
Clove Oil	Gamborg's Vitamin Culture
Cobalt Chloride	Gelatin
Cobalt, Metal	Gentian Violet (Methyl violet)
Cobalt Sulfate	Gibberellic Acid
Congo Red	Giemsa Stain
Copper, metal	Glucose
Copper (cupric) Oxide	Glutamic Acid
Cotton Seed Oil	Glycerin (Glycerol) (limit 2 pts. = 0.25 gal)
Crystal Violet	Gold Foil
Cupric Acetate	Gram's Iodine Stain
Cupric (Copper) Bromide	Graphite
Cupric (Copper) Carbonate	Guar Gum
Cupric (Copper) Chloride	Gum Tragacanth
Cupric (Copper) Sulfate	Helium
Cyclohexane	Hematoxylin
Deoxyribonucleic Acid	Heptane
Dextrin Starch	Hexane
Dextrose	Histidine
Diastase of Malt	Hydrochloric Acid
2,6 Dichloroindolephenol (Sodium Salt)	Hydrogen Peroxide 3%
Digitonin	Indigo
Dimethylglyxime	Indigo Carmine
Dodecyl Sulfate, sodium salt (Sodium Dodecyl Sulfate)	3-Indoleacetic Acid
Dowex	Iodine
Ethylenediaminetetraamine (EDTA)	Iron Acetate
Eosin	Iron Pyrite
Epsom Salt (Magnesium sulfate)	Isobutyl Alcohol
Erythorbic Acid	Isopentyl Alcohol
Erythrosine	Isopropyl Alcohol
Ethyl Alcohol	Janus Green B
Ethylene Glycol	Kaolin
Fast Green	Kerosene
Fehling's Solution A	Lactic Acid
Fehling's Solution B	Lactose
Ferric Acetate (Iron acetate)	Lanolin
Ferric Ammonium Acetate	Latex
Ferric Ammonium Citrate	Lauric Acid
Ferric Ammonium Sulfate	Lead Carbonate
Ferric Chloride	Lead Chloride
Ferric Oxide	Lead Iodide
Ferric Phosphate	Lead, Metal

Lead Oxide  
Lead Sulfate  
Lime Water  
Linseed Oil  
Lithium Carbonate  
Lithium Chloride  
Lithium Hydroxide  
Lithium Sulfate  
Litmus  
Loeffler's Flagella Stain  
Logwood Extract (Hematin)  
Lucite  
Luminol  
Lugol's Iodine  
Lycopodium Powder  
Lye  
Magnesium Acetate  
Magnesium Bromide  
Magnesium Carbonate  
Magnesium Chloride  
Magnesium Hydroxide  
Magnesium Oxide  
Magnesium Sulfate  
Magnesium Trisilicate  
Malachite Green  
Maleic Acid  
Malic Acid  
Maltose  
Manganese, metal  
Manganese Carbonate (Manganous Carbonate)  
Manganese Dioxide  
Manganese Sulfate  
Manganous bromide (Manganese bromide)  
Manganous chloride (Manganese chloride)  
Manganous sulfate  
Methyl Cellulose  
Methylene Blue  
Methyl Alcohol  
Methyl Green  
Methyl Orange  
Methyl Red  
Methyl Violet  
Methyl Salicylate  
Methyl Sulfoxide (Dimethyl Sulfoxide)  
Mineral Oil  
Molasses  
Mono Chloroacetic Acid  
Naphthalene  
a-Naphthaleneacetic acid Solution  
1-Naphthol  
2-Naphthol

Neutral Red Indicator  
Nickel Chloride  
Nicotinic Acid  
Nigrosine Black  
Ninhydrin  
Nitric Acid (limit 1 gal)  
Nitrogen  
Nucleic Acid  
Nuclei-stain  
Oleic Acid  
Olive Oil  
Orange G  
Orange IV (Torpeolin OO)  
Orcein Staining Solution  
Oxalic Acid  
Oxygen(gas)  
Pancreatin  
Paraffin  
Peanut Oil  
Pepsin Powder  
Peptone  
Petrolatum  
Petroleum Ether  
Phenol Red Indicator  
Phenolphthalein  
Phenyl Salicylate  
Phloroglucin(ol)  
Phosphoric Acid  
Phytigel Plant culture  
Pituitary Extract  
Platinum, metal  
Polyvinyl Alcohol  
Potash, sulfurated  
Potassium acetate  
Potassium Bicarbonate  
Potassium Binoxalate  
Potassium Biphthalate  
Potassium Bisulfate  
Potassium Bitartrate  
Potassium Bromate  
Potassium Bromide  
Potassium Carbonate  
Potassium Chloride  
Potassium Chromate  
Potassium Chrome Alum  
Potassium Citrate  
Silver Sulfate  
Soda Lime (sodasorb)  
Sodium Acetate  
Sodium Alginate  
Sodium Bicarbonate  
Sodium Bismuthate

Sodium Bisulfate (Sodium Hydrogen Sulfate)  
Sodium Bisulfite  
Sodium Borate  
Sodium Bromide  
Sodium Carbonate  
Sodium Chloride  
Sodium Chromate  
Sodium Citrate  
Sodium Ferrocyanide  
Sodium Fluoride  
Sodium Hydroxide  
Sodium Hypochlorite  
Sodium Iodate  
Sodium Iodide  
Sodium Lauryl Sulfate  
Sodium Metabisulfite  
Sodium Metaphosphate  
Sodium Molybdate  
Sodium Oxalate  
Sodium Perborate  
Sodium Phosphate  
Sodium Salicylate  
Sodium Silicate  
Sodium Silicofluoride (Sodium fluorosilicate)  
Sodium Sulfate  
Sodium Sulfite  
Sodium Tartrate  
Sodium Tetraborate (Sodium borate)  
Sodium Thiocyanate  
Sodium Thiosulfate  
(Sodium hyposulfite)  
Sodium Tungstate  
Stannic Chloride  
Stannic Oxide  
Stannous Chloride  
Starch, potato  
Stearic Acid  
Strontium  
Strontium Bromide  
Strontium Chloride  
Succinic Acid  
Sucrose  
Sudan Black B  
Sudan III

Sudan IV  
Sulfamic Acid  
Sulfanilic Acid  
Sulfur (limit 5 lbs)  
Sulfur Black Dye  
Sulfur Blue Dye  
Sulfur Yellow Dye  
Sulfuric Acid (limit 2 gals.)  
Tannic Acid  
Tartaric Acid  
Terpineol  
Thymol Blue  
Thyroxine  
Tin, metal  
Titanium Dioxide  
Toluene  
Toluidine Blue  
Triethanolamine  
Triphenyl Terazolium Chloride  
Trisodium Phosphate (TSP)  
Triton X, wetting agent  
Trypsin  
Turmeric Powder  
Turpentine  
Ultra Marine Blue  
Universal Indicator  
Urea  
Vegetable Oil  
Winkler's solution #1  
Winkler's solution #2  
Wood's Metal  
Wright's Stain Solution  
Xanthenol  
Xylene  
Yeast  
Zeolite  
Zinc Acetate  
Zinc Carbonate  
Zinc Chloride