

# APPENDIX G

## RESTRICTED CHEMICALS

| CHEMICAL NAME   | REASON FOR RESTRICTION   |
|---|--|
| Acetaldehyde  | Suspected carcinogen, highly flammable                             |
| Acetamide   | Suspected animal carcinogen  |
| Acrylamide  | Suspected carcinogen, absorbs through skin                         |
| AITCH-TU-ESS Cartridges<br>(HIGH SCHOOL ONLY)               | Generates explosive and toxic gas                                  |
| Aldrin  | Suspected carcinogen, absorbs through skin                         |
| Allyl Chloride  | Suspected carcinogen   |
| Aluminum Chloride, Anhydrous<br>(Hydrate Salts Are Allowed) | Water reactive; corrosive  |
| Ammonium Bichromate   | Oxidizer, corrosive, known human carcinogen                        |
| <b>Ammonium Nitrate</b>                                     | <b>AP/IB CHEMISTRY ONLY: Explosive if heated under confinement</b> |
| Ammonium Oxalate  | May be fatal if inhaled or ingested                                |
| Ammonium Vanadate   | May be fatal if inhaled or ingested                                |
| Anisidine (o-, p-isomers)                                   | Suspected carcinogen   |
| Barium Chloride   | Severely toxic; 0.8 gram fatal dose                                |
| Barium Hydroxide  | Highly toxic, neurotoxin   |
| Barium Nitrate  | Poison, strong oxidant, highly toxic to eyes                       |
| Benzene (Phenylbutazone)                                    | Irritant   |
| Benzo(a)pyrene  | Suspected carcinogen   |
| Bromine   | Poison, powerful oxidizer  |
| Bromoform   | Toxic by inhalation, unsuspected carcinogen                        |
| iso-Butanol   | Suspected carcinogen, highly flammable                             |
| sec-Butanol   | May form explosive hydroperoxides                                  |
| tert-Butanol  | Suspected carcinogen and mutagen, highly flammable                 |
| 1,3-Butadiene   | Suspected carcinogen   |
| Caffeine  | Very toxic, 1 grain may be life threatening                        |
| <b>Calcium Carbide</b>                                      | <b>Flammable, reacts with water</b>                                |
| Calcium Chromate  | Suspected carcinogen   |
| Calcium Fluoride  | Mutagenic effects in animals, poison, toxic to humans              |
| <b>Calcium Oxide</b>  | <b>Corrosive, irritating</b>                                       |
| Carbol Fuchsin  | Suspect animal carcinogen and mutagen                              |
| Carmine   | Irritant; burning may produce carbon monoxide                      |
| Catechol  | Corrosive  |
| Chlordane   | Suspected carcinogen, absorbs through skin                         |
| Chlorinated Camphene  | Suspected carcinogen, absorbs through skin                         |
| B-Chloroprene   | Suspected carcinogen, absorbs through skin                         |
| Chromic Sulfuric Acid                                       | Positive animal and human carcinogen                               |
| Chromium  | Known human carcinogen as dust or fume                             |
| Chromium Acetate  | Irritant   |

| CHEMICAL NAME                     | REASON FOR PROHIBITING   |
|-----------------------------------|--|
| Chromium (III) Chloride           | Suspected carcinogen   |
| Chromium( III) Nitrate            | Known human carcinogen   |
| Chromium (III) Oxide              | Known Human carcinogen   |
| Chromium (VI) Oxide               | Suspected carcinogen   |
| Chromium(III) Potassium Sulfate   | Suspected carcinogen   |
| Chrysene                          | Suspected carcinogen   |
| Cobalt                            | Suspected carcinogen   |
| Cobalt Nitrate                    | Oxidizer; irritant   |
| <b>Cresols</b>                    | <b>AB/IB BIOLOGY ONLY: Dermal toxicity</b>                                 |
| Crotonaldehyde                    | Suspected carcinogen   |
| <b>Crystal Violet Solution</b>    | <b>AP/IB CHEMISTRY ONLY: Contains known animal carcinogens and poisons</b> |
| <b>Cyclohexane</b>                | <b>AP/IB CHEMISTRY ONLY: Flammable</b>                                     |
| <b>Cyclohexanol</b>               | <b>AP/IB CHEMISTRY ONLY: May form explosive peroxides as it ages</b>       |
| Cyclohexene                       | May form explosive peroxides, toxic by inhalation                          |
| <b>p-Dichlorobenzene</b>          | <b>AP/IB CHEMISTRY ONLY: Combustible, known human carcinogen</b>           |
| 1,2-Dichloroethane                | Suspected human carcinogen, animal mutagen                                 |
| Dichloroindophenol Sodium         | Irritant   |
| Dieldrin                          | Suspected carcinogen, absorbs through skin                                 |
| Diglycidyl Ether (DGE)            | Suspected carcinogen   |
| Dimethyl Sulfate                  | Suspected carcinogen, absorbs through skin                                 |
| Epichlorohydrin                   | Suspected carcinogen, absorbs through skin                                 |
| Ethyl Bromide                     | Suspected carcinogen, absorbs through skin, inhalation hazard              |
| Ethylene Glycol                   | Animal mutagen, narcotic and nephrotoxin                                   |
| Ethylenediamine Tetra-acetic Acid | Animal mutagen   |
| FAA Solution                      | Contains formaldehyde and 90% alcohol, poison                              |
| Ferrous Sulfate                   | Irritant   |
| Fuchsin                           | Irritant   |
| Hematoxylin                       | Suspected carcinogen   |
| Heptachlor                        | Suspected carcinogen, absorbs through skin                                 |
| Hexachlorobutadiene               | Suspected carcinogen, absorbs through skin                                 |
| Hexachloroethane                  | Suspected carcinogen   |
| Hexamethyl phosphoramide          | Suspected carcinogen, absorbs through skin                                 |
| <b>Hydrogen Peroxide (30%)</b>    | <b>HIGH SCHOOL ONLY: Fire and explosion risk, severely corrosive</b>       |
| <b>Iodine Crystals</b>            | <b>AP/IB CHEMISTRY ONLY: May react violently, vapor highly toxic</b>       |
| <b>Indigo Carmine</b>             | <b>Animal carcinogen</b>   |
| Isoamyl Alcohol                   | Irritant; combustible liquid and vapor                                     |
| Isobutyl Alcohol                  | Flammable  |
| Lead(II) Acetate                  | Suspected animal carcinogen  |
| Lead (VI) Chromate                | May be fatal if inhaled or ingested, known human carcinogen                |
| Lead and Lead Compounds           | Poison, cumulative neurotoxin  |
| Lithium Nitrate                   | Oxidizer   |
| Magnesium Chlorate                | Irritant   |
| Magnesium Ribbon                  | Irritant   |

| CHEMICAL NAME                        | REASON FOR PROHIBITING  |
|--------------------------------------|---|
| Manganous Nitrate                    | Explosion hazard in dry form  |
| <b>Methanol</b>                      | <b>AP/IB CHEMISTRY ONLY: absorbs through skin, flammable</b>  |
| Methyl Bromide                       | Suspected carcinogen, absorbs through skin  |
| Methyl Chloride                      | Suspected carcinogen, absorbs through skin  |
| Methyl Oleate                        | Toxic   |
| Methylene Chloride                   | Possible carcinogen, may be absorbed through skin   |
| 4,4'-Methylene bis(2-chloroaniline)  | Suspected carcinogen, absorbs through skin  |
| 4,4'-Methylene Dianiline             | Suspected carcinogen, absorbs through skin  |
| <b>Naphthalene</b>                   | <b>Corrosive, irritating</b>  |
| Nessler's Reagent Solution           | Poison, neurotoxin, and nephrotoxin   |
| Nickel Carbonate                     | Reasonably anticipated human carcinogen   |
| Nickel(II) Chloride                  | Suspected animal carcinogen   |
| Nickel Compounds                     | Fumes may cause increase risk of lung cancer, many nickel compound are animal mutagens and carcinogens (also Nickel(ous) compounds) |
| Nickel(II) Nitrate                   | Suspected animal carcinogen   |
| Nickelous Acetate                    | Reasonably anticipated human carcinogen   |
| Ninhydrin                            | Irritant poison, biologically active  |
| Oxalic Acid                          | Neurotoxin and nephrotoxin, poison  |
| Paraformaldehyde                     | Mutagen, possible animal carcinogen   |
| Pentane                              | Irritant; flammable   |
| Petroleum Ether                      | Flammable   |
| o-Phenylenediamine                   | Suspected carcinogen  |
| 1-Phenyl-2-Thiourea                  | May be fatal if inhaled or ingested   |
| Polyvinyl Alcohol                    | Suspected animal carcinogen   |
| Potassium Bromate                    | Animal mutagen  |
| Potassium Chlorate                   | Extremely explosive if slightly contaminated  |
| Potassium Chromate                   | Possible human carcinogen   |
| Potassium Dichromate                 | Possible human carcinogen   |
| Potassium Ferricyanide               | Decomposed to ferrocyanide upon ingestion   |
| Potassium Nitrite                    | Animal mutagen and teratogen  |
| Potassium Permanganate               | Animal mutagen  |
| Potassium Periodate                  | Oxidizer  |
| Propane Sultone                      | Suspected carcinogen  |
| Propylene Dichloride                 | Suspected carcinogen  |
| Propylene Diamine                    | Suspected carcinogen, absorbs through skin  |
| Propylene Oxide                      | Suspected carcinogen; extremely flammable; harmful by inhalation  |
| Resorcinol                           | Neurotoxin  |
| Rhodamine B                          | Moderately toxic, positive animal carcinogen, suspected human carcinogen, avoid all skin contact                                    |
| Salol (Phenyl Salicylate)            | Irritant  |
| Saponin                              | Destroys red blood cells, toxic by ingestion  |
| Silver Acetate                       | Severely toxic by inhalation and ingestion  |
| Silver Nitrate<br>(HIGH SCHOOL ONLY) | Oxidizer; corrosive; may be fatal if ingested   |
| Sodium Bisulfite                     | Animal Mutagen  |

| CHEMICAL NAME                             | REASON FOR PROHIBITING  |
|---|---|
| Sodium Borate                             | Animal mutagen, poisoning affects kidneys                     |
| Sodium Bromate                            | Oxidizer  |
| Sodium Chlorate                           | Clothing contaminated with chlorates are extremely flammable  |
| Sodium Fluoride                           | Animal mutagen  |
| <b>Sodium Metal (Lump/Piece)</b>          | <b>Water Reactive</b>   |
| Sodium Nitrate                            | Oxidizer; irritant  |
| Sodium Oxalate                            | Poison; fatal dose < 5 grams, nephrotoxin and neurotoxin      |
| Sodium Silicofluoride                     | Toxic   |
| Sodium Salicylate                         | Animal mutagen and reproductive effects                       |
| Strontium Chromate                        | suspected carcinogen  |
| Sudan III or Sudan IV<br>(SOLUTIONS ONLY) | Decomposes to oxides of nitrogen                              |
| Sulfamethazine                            | Irritant  |
| <b>Thermite</b>                           | <b>AP/IB CHEMISTRY ONLY: Explosive</b>                        |
| Thymol                                    | Tumororigenic, reproductive, and mutagenic effects in animals |
| Toluene                                   | Nephrotoxin and hepatotoxin; mutagenic effects in animals     |
| Toluene -2,4-diisocyanate                 | Suspected carcinogen, sensitizer (allergen)                   |
| Triethanolamine                           | Suspected carcinogen  |
| Urethane (Ethyl Carbamate)                | Alleged carcinogen  |
| Vinyl Cyclohexene dioxide                 | Suspected carcinogen  |
| Wright's Stain Solution                   | Neurotoxin  |
| Zinc Acetate                              | Reproductive and mutagenic animal effects                     |
| Zinc Chloride                             | Reproductive and tumorigenic effects in animals               |
| Zinc Oxide                                | Animal mutagen  |
| Zinc Sulfate                              | Animal mutagen  |

The most recent chemicals added to the restricted list appear in red.