

SCHOOL FACILITIES

Chemical and Laboratory Safety

Guidelines for chemical storage and handling are as follows:

- A. Chemical substances shall be labeled in accordance with National Fire Protection Association (NFPA) standards. Substances with a NFPA health, flammability or radioactivity rating of four (4) should not be used unless provisions can be made for use in accordance with the special conditions as defined for that substance. Such substances include those that present an extreme health and/or radioactivity hazard; could form an explosive peroxide; or are defined as carcinogenic or mutagenic.
- B. Annual inventories shall be conducted for the purpose of identifying all substances, their shelf-life, proper labeling, and their condition of storage.
- C. Reasonable efforts shall be made to ensure proper storage of all hazardous substances. Since many chemicals are incompatible with each other, chemicals shall be separated by family characteristics. The following arrangement (Page 2) is suggested.
- D. Chemical substances that have exceeded their shelf-life shall be disposed of in the manner described in the Flinn Catalog/Reference Manual (Technical Service Department, Flinn Scientific, Inc., P.O. Box #231, 910 West Wilson Street; Batavia, Illinois 60510; or phone (312) 879-6900.
- E. A third-party assessment of the science laboratory shall be conducted at least once every three years.

INORGANIC Top -> Bottom
INORGANIC #10 Sulfur, Phosphorus, Arsenic, Phosphorus Pentoxide
INORGANIC #2 Halides, Sulfates, Sulfites, Thiosulfates, Phosphates, etc.
INORGANIC #3 Amides, Nitrates, (not Ammonium Nitrate), Nitrates, etc.
INORGANIC #1 Metals and Hydrides (store away from any water
INORGANIC #4 Hydroxides, Oxides, Silicates, etc.
INORGANIC #7 Arsenates, Cyanides, etc. (store above acids)
INORGANIC #5 Sulfides, Selenides, Phosphides, Carbides, Nitrides, etc.
INORGANIC #8 Borates, Chromates, Manganates, Permanganates, Etc.
INORGANIC #6 Chlorates, Perchlorates, Chlorites, Perchloric Acid Peroxides, etc.
INORGANIC #9 Acid, except Nitic

ORGANIC Top -> Bottom
ORGANIC #2 Alcohols, Glycols, Etc.
ORGANIC #3 Hydrocarbons, Esters, Etc.
ORGANIC #4 Esters, Ketones, Etc.
ORGANIC #5 Epoxy Compounds, Isocyanates
ORGANIC #7 Sulfides, Polysulfides, Etc.
ORGANIC #8 Phenol, Cresols
ORGANIC #6 Peroxides, Azides, Etc.
ORGANIC #1 Acid, Anhydrides, Peracids, etc.
MISCELLANEOUS
MISCELLANEOUS