Procedure 705-EBAB 1
Revision 3
Effective 08/08/2025

ST. VRAIN VALLEY SCHOOLS
academic excellence by design

CHEMICAL HYGIENE PLAN

Environmental Compliance

District Operations

Contents

CHEMICAL HYGIENE PLAN

SCOPE

This document defines procedures to be used for managing chemicals in all St. Vrain Valley Schools. The Board, through the superintendent, shall create procedures that comply with all local, state and federal laws and regulations which pertain to the safe and proper storage, transportation and disposal of hazardous materials.

APPLICATION

The requirements of Board Policy EBAB shall govern this document and provide processing procedures not specified in Board Policy EBAB.

CONFLICT STATEMENT

Notify the Environmental Energy & Sustainability Manager of any conflict between the requirements of this procedure and any other applicable policies and procedures. The conflict shall be resolved, with changes as negotiated. If in conflict with Board of Education policies, Board of Education policies shall prevail.

DOCUMENT CONTROL

Submit change requests for this procedure to the Environmental Energy & Sustainability Manager who then shall determine the appropriate action. Reference 700-2 Create and Change Standard Operating Procedures (SOPs) for change procedures. The Environmental Energy & Sustainability Manager shall have final approval for revision to this procedure.

RESPONSIBILITY FOR ENFORCEMENT

Compliance with the requirements of this procedure is the responsibility of the Environmental Energy & Sustainability Manager, school administrators, and school staff.

REFERENCE DOCUMENTS

The current issues of the following document form a part of this procedure to the extent specified herein, and/or are listed here as additional sources of information:

Colorado Department of Public Health and Environment Guidance (See section 6.12)

INTRODUCTION

This Chemical Hygiene Plan contains the district's guidelines for the management of chemicals in all schools with specific emphasis on science departments. Furthermore, Appendices 5, 6, and 7 address specific requirements for other content areas as well as custodial departments. It contains information required by the Colorado Department of Public Health and Environment (CDPHE) Consumer Protection Division, as outlined in the document Rules and Regulations Governing Schools in the State of Colorado.

ANNUAL REVIEW

The Chemical Hygiene Plan will be reviewed and updated annually by the district's Environmental Energy & Sustainability Manager and the Science Leadership Team.

HAZARDOUS MATERIALS AND CHEMICAL MANAGEMENT

In accordance with district policy EBAB Hazardous Materials, the district is committed to providing a safe and healthy environment for its students and staff by minimizing hazardous chemical use and waste. In order to achieve these goals, proper chemical management and training are essential to make students and staff aware of potential hazards related to chemical use including:

A. Ensuring that staff follows the Chemical Hygiene Plan, participates in training programs, and works to minimize chemical waste generation.
B. Ensuring all staff follows purchasing procedures in order to minimize large quantities of chemicals and/or extremely hazardous chemicals from entering the school.

ADMINISTRATIVE POSITIONS AND DUTIES

The following positions are integral in the district's chemical management process:

Environmental Energy & Sustainability Manager (EESM)

A. Stay current with legal requirements concerning chemical and hazardous waste management, including appropriate training for handling and storing hazardous waste.
B. Coordinate the disposal of hazardous waste.
C. Coordinate chemical spill clean-ups.
D. Ensure chemical use and storage is following district policies and procedures, and all applicable regulations.
E. Review the Chemical Hygiene Plan annually and update as needed.

Science Curriculum Coordinator (SCC)

A. Ensure that staff has received appropriate training and are aware of the Chemical Hygiene Plan and other reference material.
B. Maintain and regularly update the library of alternative science curricula.
C. Encourage and provide training on micro-scale chemistry, green chemistry, demonstration labs, or other forms of non-hazardous or less-hazardous curricula.

School Administrator/s

Responsible for chemical management in the school and monitors employees' compliance with this Plan.

Science Department Staff

A. Understand and follow the Chemical Hygiene Plan.
B. Demonstrate the proper use of laboratory safety equipment to include: Emergency Eyewash, Shower, Gas and Electrical shut-off where installed, with each new class/group of students prior to the first laboratory exercise of the term.
C. Plan and conduct each laboratory exercise with the least toxic alternative.

D. Use good laboratory chemical management practices.
E. Ensure that students:
    a. read and sign the Science/Laboratory Safety Contract. *(See Safety Section)*
    b. properly wear required protective equipment.
    c. receive safety training prior to conducting laboratory experiments.
F. Retain the signed Student Safety Contract or written acknowledgement of student receipt for the duration of the school year.
G. Regularly conduct inspections of stored chemicals for signs of leakage, poor storage practices, peeling labels, or any other problems.
H. Know the location of Safety Data Sheets (SDS).
I. Ensure all materials and wastes are labeled and disposed of as required.
J. Maintain a universal chemical spill kit in chemical storage areas. For use see Video.
K. Understand and follow Chemical Emergency procedures.
L. Conduct a thorough inventory and appropriately document the chemicals on hand and their amounts at a minimum once per year.
M. Ensure that chemicals are properly stored and labeled in accordance with district, local, state and federal guidelines and requirements.

Art Staff

See Appendix 5 for specific rules and responsibilities.

Automotive Technology, Stagecraft and/or Vocation Classrooms

See Appendix 6 for specific rules and responsibilities.

District Custodial Manager

See Appendix 7 for specific rules and responsibilities.

PROCUREMENT AND RECEIVING PROCEDURES

Procurement Procedures:

A. Accepting chemicals donated by outside entities is PROHIBITED without prior approval of EESM.
B. Check current inventory quantities across the department prior to purchasing.
C. Crosscheck *Combined Prohibited and Restricted Chemical List,* regarding prohibited, restricted, and demonstration use only chemicals.
    1. Prohibited Chemicals: those that pose an inherent, immediate and potentially life-threatening risk, injury or impairment due to toxicity or other chemical properties. College level (A.P.) classes requiring the purchase of prohibited chemicals must:
        a) Notify EESM or SCC by email every school year.
        b) Follow the Prohibited/Demonstration Chemicals SOP in this plan.
        c) Refer to district labeling guidelines.
        d) In general, only purchase enough that can be utilized in one school year unless the indicated chemical expiration date is shorter.
    2. Restricted Chemicals: those chemicals that are restricted by use, and/or quantities in accordance with Appendix B and B2 of Code of Colorado Regulations, 6 CCR1010-6. Restricted chemicals with an Indefinite shelf life shall be obtained in amounts that can be expended in five years or less. Restricted chemicals with a Good, Fair, Poor or Limited shelf life shall be

obtained in amounts that can be expended in one school year, unless the indicated chemical expiration date is shorter.

3. Demonstration Only Chemicals: a subclass of restricted chemicals that are limited to instructor demonstrations. Follow the guidelines in C2 above for these chemicals' shelf life.

Receiving Procedures:

1. Science staff are responsible for promptly unpacking and storing purchased chemicals.
2. All purchased chemicals must be properly labeled following district guidelines listed below.
3. For chemicals new to the school's inventory, SDS shall be filed in accordance with district guidelines listed below

CHEMICAL MANAGEMENT

Staff are required to adhere to the following procedures for chemical storage, inventory, use, safety, disposal, and spill response:

STORAGE AND HANDLING

General storage and handling:

A. Evaluate any special storage and/or handling requirements.
B. SVVSD has adopted the Flinn's Chemical Storage guidelines. See APPENDIX 4
C. Chemicals shall be stored in the designated chemical storage room. Chemicals shall not be stored on the floor nor unsafely shelved. Storage areas must have restricted access; no student or unauthorized staff member is allowed unsupervised.
D. Trays used for chemical storage in storage rooms should contain the storage code and chemical name/formula where applicable.
E. Conduct regular inspections of stored chemicals for signs of leakage, poor storage practices, peeling labels, or any other problems. All stored chemicals used in schools shall be examined for stability and properly discarded when found to be no longer usable.
F. Chemicals may be temporarily stored within or outside the stockroom in preparation for an experiment. Upon completion of the experiment, chemicals shall be properly returned to their appropriate storage location.

SPECIAL STORAGE AND HANDLING

Flammable Liquids:

A. Flammables shall always be stored in a dedicated UL rated wood or metallic flammables cabinet.
B. Flammables should be kept cool at all times.
C. Flammables shall always be stored away from sources of ignition and oxidizers.
D. Flammables shall never be stored in a refrigerator, unless the refrigerator is rated explosion proof.
E. Inorganic and Organic flammables must be separated from one another in the cabinet.
F. Mixtures containing flammable chemicals must be properly labeled as flammable, and stored in the

flammable cabinet.

G. Avoid storing chemicals, especially flammables, in direct sunlight.

Caustic or Corrosive Chemicals:

A. Store in an appropriate UL corrosive cabinet.
B. Certain chemicals can be kept in their original shipping package, i.e. kits of compatible reactive chemicals.
C. Handling may require the use of personal protective equipment.
D. Store corrosive materials near the floor to minimize bottles falling from the shelves.
E. Purchase only small amounts of the needed concentration - less than 2.5L when possible.
F. Store Nitric Acid away from other acids in a Nitric Acid specific cabinet.

Corrosive Liquids - include mineral acids, organic solvents, organic acids and solutions of strong bases.
Corrosive Solids - include caustic sulfides and hydroxides such as sodium and potassium and their salts.
Corrosive Gasses - include ammonia, glacial acetic acid, and nitric acid.

Compressed Gasses

A. Compressed gasses should be handled as potential explosives.
B. Cylinders must be stored to prevent them from falling, and the cylinder valve stem must be protected.
C. Cylinders must be secured with a chain to a solid surface, and a cap must be in place except when on a regulator.
D. Avoid exposure to heat - do not store in direct sunlight.
E. Propane is not allowed to be stored indoors.
F. Never lubricate, modify, force, or tamper with a cylinder valve.
G. Do not extinguish a flame until the gas is shut off.
H. Medical oxygen tanks will be stored in the health clinic.

LABELING

A. The district guidelines must be followed for all chemicals purchased for district use.
B. Labels shall contain chemical name, signal/caution words, GHS Pictograms, storage code, concentration.
C. Discrepancies between various chemical manufacturers and Flinn PAVO Chemventory regarding labeling information the most restrictive guideline shall prevail.
D. Chemicals containers and/or their holding trays shall be dated with the month and year procured.
E. Supplemental Labels, pictogram stickers, etc. can be requested from the EESM office. In addition, Flinn Chemventory also provides free label printing through Flinn PAVO site.

Transferred Chemicals for Student Use:

Chemicals transferred from the original container into another container (ex. dropper bottles, vials, etc.) for student use must be properly labeled with the following:

A. Chemical name and/or chemical formula, concentration, and storage code.
B. GHS Pictograms, and signal/caution word/s.
C. Additional Information ex. concentration, grade, form (mossy, pellets, etc.)

Unidentified Chemicals for Student Use:

Special consideration must be given to laboratory experiments designed for students to identify different

unknown chemicals. In these situations, labeling the container with the chemical name would defeat the purpose of the lab. However, labels with signal word/s and pictogram/s must be placed on the container. Different identification systems may be used (e.g. the chemical name can be written at the bottom of the container). When these chemicals are stored, a key to the identification system must be visible.

Household Chemicals from Grocery Stores;
All grocery store bought chemicals (ex. vinegar, isopropanol, hydrogen peroxide, acetone, etc.) must be labeled following district labeling guidelines above.

Mixtures Made by Teachers:
Departments/Content area teachers shall maintain recipe records for all mixtures made for specific experiments (e.g. A.P. classes, forensic science, etc.). Mixture-Recipes shall be filed along with or within the yellow binder. Each mixture recipe must include a recipe number, content/class use, instructions, source, and district labeling guidelines. Mixture containers must be labeled in accordance with district guidelines.

Chemicals Used in Advanced Placement (A.P.) Classes:
For college level classes requiring the use of prohibited and/or demonstration only chemicals, the label must contain the corresponding signal/caution words. Only students enrolled in college level classes shall have access to these chemicals. See Appendix 1.

INVENTORY AND SAFETY DATA SHEETS

Chemical inventories identify current chemical supply, determine disposal needs, provide vital information to emergency responders, and are required by the CDPHE.

A. The Science Lead and/or those teachers sharing a chemical storage location shall ensure each storage location is inventoried annually. A hardcopy of the inventory shall be filed alphabetically in the district provided orange binder and easily located in each individual stockroom and the main office.
B. Inventories must include the chemical name, school name, room number, quantity, and storage location.
C. Quantities purchased must be updated at a minimum once year prior to September 25th using the online Flinn PAVO Chemventory system.
D. In case of an emergency, it is imperative that a copy of the most recent inventory and be readily available in the appropriate locations.
E. Chemicals identified as expired, unknown, or surplus should be designated for disposal.
F. All Safety Data Sheets shall be filed alphabetically in the district provided yellow binder and easily located in each individual stockroom and the main office.

SAFETY

Science safety equipment and procedures.

A. Know the evacuation procedures in case of an emergency or safety drill during a laboratory experiment; containers must be closed, gas valves turned off, fume hoods and any electrical equipment turned off.
B. Schools shall be equipped with the following safety equipment (as applicable):
    a. Eye Protection that meets American National Standards Institute 1989 Z87.1 Standard Practice for Occupational/Educational Eye and Face Protection
        i. Safety glasses or goggles must be worn by all students participating in any experiment

or activity in which hazardous materials are used.
    ii. Eye protection glasses and goggles shall be properly sanitized and stored in a protected place.
b. Eyewashes and Safety Showers
    i. Emergency eyewash/emergency shower stations must be visibly marked, and unobstructed for immediate use.
c. Hand washing facilities shall be available.
d. Fire blanket, if present, should be properly stored and visibly accessible.
e. Fire extinguishers are inspected annually by Operations as required by code.
f. Fume hoods, if present, are tested annually for proper air flow by a certified Fume Hood Inspector.
g. Acid neutralization tanks located either within the science classroom or outside underground shall be inspected regularly by Operations as required by code.

C. Safety items will be checked for proper operation and documented by the classroom teacher assigned to the science classroom at least once annually prior to the first student contact day as stated in the annual Science Teacher Laboratory Safety Checklist.
D. Safety items deemed broken and/or in need of repair shall be identified as inoperable and a work order shall be submitted immediately by the individual responsible for initiating work orders.
E. It is suggested that schools require students and parents to sign a Science Safety Contract when taking a science course and/or enrolling as a student aide in science classes. English Safety Contract, Spanish Safety Contract.

WASTE DISPOSAL

The Environmental Energy & Sustainability Manager (EESM) is responsible for all hazardous waste disposals to ensure the district follows proper and consistent methods to collect, consolidate, and properly dispose of all hazardous waste.

District Hazardous Waste Collection

The district is registered with the State of Colorado as a conditionally exempt small quantity generator (CESQG). Depending on the waste, it is recycled, sent to the landfill, or incinerated.

Non-Hazardous Waste Disposal

A. Non-hazardous waste may be disposed of in the trash.
B. It is acceptable to dispose of weak concentrations of corrosive chemicals with a pH no less than 6.5 standard units or no greater than 9.0 standard units.
C. Never dispose of acids and bases in the drain at the same time in order to prevent an adverse chemical reaction.
D. If in doubt, contact the (EESM) for advice.

Hazardous Waste Disposal

The (EESM) coordinates the transportation and disposal of:

A. Unused chemicals: Containers in poor condition or have become obsolete.
B. Lab experiment byproducts: The waste must be in a closed container and the contents identified, so it can be transported safely.
C. Lab specimens: Packing fluid must be separated from the specimens prior to disposal. Dispose

of packing fluid as necessary in accordance with district disposal guidelines. Place the specimen in a black plastic bag, seal completely, and preferably place outside in the dumpster.

D. Broken glass: Place into a cardboard box, seal with tape and identify broken glass on the box. The box and contents can be placed into the trash receptacle for disposal.
E. Batteries: Refer to the Colorado Department of Public Health and Environment for disposal guidelines. See https://www.colorado.gov/pacific/cdphe/household-batteries
F. Contact the EESM for instructions. See Appendix 2 for further guidelines.

SPILL AND EXPOSURE RESPONSE

(See Appendix 3 Chemical Emergencies)

All staff are responsible for knowing the hazards of materials being used in their environment/classroom and for keeping an updated SDS yellow binder in a conspicuous area in each chemical stockroom.

APPENDIX 1: Prohibited/Demonstration Only Chemical Protocol

Staff must reference the Combined Prohibited/Restricted Chemical List published by the CDPHE prior to purchasing chemicals.

Prohibited and Demonstration Only Chemicals–Used only by Staff and Students of AP Classes.

- Store these chemicals in areas of restricted access.
- Ensure current SDS is available and reviewed prior to use.
- Label all containers in accordance with district guidelines.
- Be prepared for accidents and spills.

Contact the Environmental Energy & Sustainability Manager for questions 303-652-7661 (cell).

APPENDIX 2: Sink Disposal Guidelines

SINK DISPOSAL GUIDELINES

Hazardous wastes cannot be discarded down the drain. Collect hazardous wastes in compatible containers. Properly label the container. Call the Environmental Energy & Sustainability Manager (EESM) if you have any waste disposal questions. (Ext. 57527)

The following categories of waste **CANNOT** be sink disposed:

1. **FOODSTUFFS** or provisions that could spoil or rot.

2. **FLAMMABLE SOLVENTS**
   Alcohols, alkane aromatics, ketone, xylene, toluene, ether, acetone, acetonitrile, pyridine (aqueous alcohol solutions of less than 20% concentration may be sink disposed, collect higher concentrations for disposal as needed.)

3. **HALOGENATED SOLVENTS**
   Methylene chloride, chloroform, carbon tetrachloride, trichloroethane, freons and halothanes.

4. **TOXIC CHEMICALS AND SOLVENTS**
   Acrylamide monomer, phenol, formamide, cyanides, sulfides, carcinogens and mutagens.

5. **HEAVY METALS**
   Arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, zinc, and other metals.

6. **NON-WATER-SOLUBLE WASTES**
   Vacuum pump oil, mineral oil, kerosene, gels and solid wastes.

7. **INFECTIOUS OR BIO HAZARDOUS WASTES**
   Human tissue, lab specimens, infectious agents or pathogens (properly disinfected liquid wastes are acceptable for sink disposal)

8. **RADIOACTIVE MATERIALS**
   Consult with the Environmental Energy & Sustainability Manager 303-652-7661 (cell), or 303-702-7527 before disposing of any radioactive waste material.

APPENDIX 3: Chemical Emergencies

Poison Control Center Information

Emergency Phone Number: 1-800-222-1222

Hazardous Spill and/or Exposure Procedure

If the hazardous emergency is not safe to handle, call 911, and contact the Main Office for further response and instructions.

Science Teacher Spill Response

A. Evaluate if the district provided Flinn Spill Kit can be safely used, and is suitable for clean-up containment. If so, follow instructions for clean-up and disposal.
B. If the hazardous emergency is not safe to handle, call 911, and contact the Main Office for further response and instructions.
C. Provide emergency responders with access to chemical SDS information as needed.

Science Teacher Exposure Response

If the hazardous emergency is not safe to handle, call 911, and contact the Main Office for further response and instructions.

Swallowed Poisons: If the product swallowed is burning, irritating, or caustic AND the person is conscious, not having convulsions contact Poison Control **1-800-222-1222**

Poison in the eye: Remove contact lenses. Immediately activate emergency eye wash and irrigate for at least 15 to 20 minutes. Let the water hit the bridge of the nose and gently run into the eyes rather than pouring the water directly into the eye. Encourage blinking. Contact Poison Control **1-800-222-1222**.

Poison on the skin: Rinse the skin immediately. Remove contaminated clothing first. Activate emergency safety shower in the laboratory. Use mild soap to remove material that sticks to the skin.

Inhaled poison: Move to fresh air immediately. Stay away from toxic fumes and gasses.

School Administrator Response

A. If the hazardous emergency is too large for staff to adequately handle, call 911 if not already done so.
B. Shut off the mechanical ventilation system to that area.
C. Provide emergency responders with access to chemical SDS information as needed.
D. If a chemical spill is severe, initiate building evacuation.
E. Notify the Environmental Energy & Sustainability Manager at 303-652-7661 (cell) or 303-702-7527.
F. If injury or property damage occurs, contact Risk Management Services 303-682-742

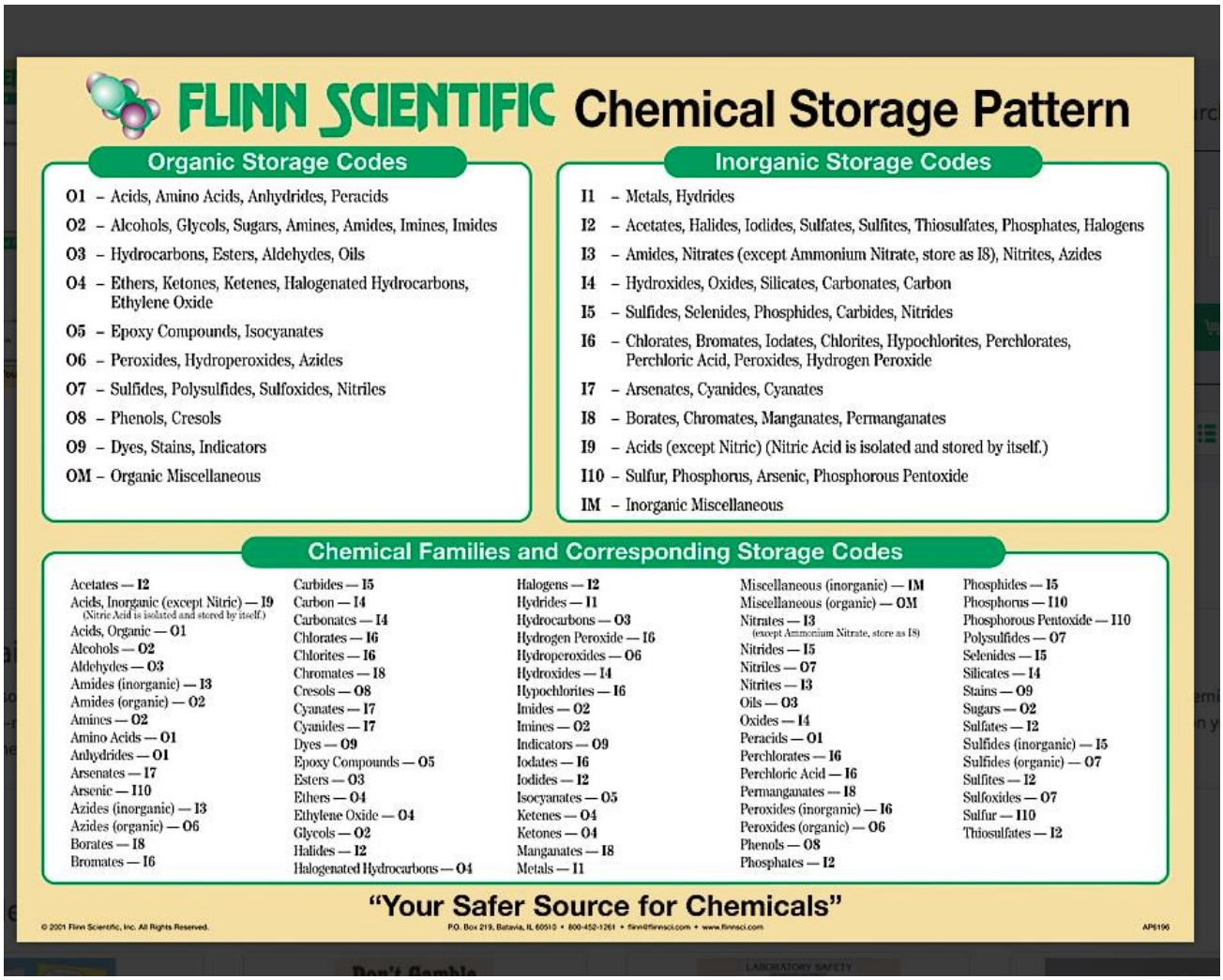
Chemical Emergency/Report Procedures:

Student Injury: Complete the Student Injury Report. Notify parents/guardians of the incident.

Employee Injury: Complete the Employee Injury Report and contact Risk Management for Worker's Compensation.

Visitor Injury: Complete the Visitor Injury Report

APPENDIX 4: Flinn Chemical Storage Guidelines



FLINN SCIENTIFIC Chemical Storage Pattern

Organic Storage Codes

- **O1** – Acids, Amino Acids, Anhydrides, Peracids
- **O2** – Alcohols, Glycols, Sugars, Amines, Amides, Imines, Imides
- **O3** – Hydrocarbons, Esters, Aldehydes, Oils
- **O4** – Ethers, Ketones, Ketenes, Halogenated Hydrocarbons, Ethylene Oxide
- **O5** – Epoxy Compounds, Isocyanates
- **O6** – Peroxides, Hydroperoxides, Azides
- **O7** – Sulfides, Polysulfides, Sulfoxides, Nitriles
- **O8** – Phenols, Cresols
- **O9** – Dyes, Stains, Indicators
- **OM** – Organic Miscellaneous

Inorganic Storage Codes

- **I1** – Metals, Hydrides
- **I2** – Acetates, Halides, Iodides, Sulfates, Sulfites, Thiosulfates, Phosphates, Halogens
- **I3** – Amides, Nitrates (except Ammonium Nitrate, store as I8), Nitrites, Azides
- **I4** – Hydroxides, Oxides, Silicates, Carbonates, Carbon
- **I5** – Sulfides, Selenides, Phosphides, Carbides, Nitrides
- **I6** – Chlorates, Bromates, Iodates, Chlorites, Hypochlorites, Perchlorates, Perchloric Acid, Peroxides, Hydrogen Peroxide
- **I7** – Arsenates, Cyanides, Cyanates
- **I8** – Borates, Chromates, Manganates, Permanganates
- **I9** – Acids (except Nitric) (Nitric Acid is isolated and stored by itself.)
- **I10** – Sulfur, Phosphorus, Arsenic, Phosphorous Pentoxide
- **IM** – Inorganic Miscellaneous

Chemical Families and Corresponding Storage Codes

Acetates — **I2**
Acids, Inorganic (except Nitric) — **I9** (Nitric Acid is isolated and stored by itself.)
Acids, Organic — **O1**
Alcohols — **O2**
Aldehydes — **O3**
Amides (inorganic) — **I3**
Amides (organic) — **O2**
Amines — **O2**
Amino Acids — **O1**
Anhydrides — **O1**
Arsenates — **I7**
Arsenic — **I10**
Azides (inorganic) — **I3**
Azides (organic) — **O6**
Borates — **I8**
Bromates — **I6**
Carbides — **I5**
Carbon — **I4**
Carbonates — **I4**
Chlorates — **I6**
Chlorites — **I6**
Chromates — **I8**
Cresols — **O8**
Cyanates — **I7**
Cyanides — **I7**
Dyes — **O9**
Epoxy Compounds — **O5**
Esters — **O3**
Ethers — **O4**
Ethylene Oxide — **O4**
Glycols — **O2**
Halides — **I2**
Halogenated Hydrocarbons — **O4**
Halogens — **I2**
Hydrides — **I1**
Hydrocarbons — **O3**
Hydrogen Peroxide — **I6**
Hydroperoxides — **O6**
Hydroxides — **I4**
Hypochlorites — **I6**
Imides — **O2**
Imines — **O2**
Indicators — **O9**
Iodates — **I6**
Iodides — **I2**
Isocyanates — **O5**
Ketenes — **O4**
Ketones — **O4**
Manganates — **I8**
Metals — **I1**
Miscellaneous (inorganic) — **IM**
Miscellaneous (organic) — **OM**
Nitrates — **I3** (except Ammonium Nitrate, store as I8)
Nitrides — **I5**
Nitriles — **O7**
Nitrites — **I3**
Oils — **O3**
Oxides — **I4**
Peracids — **O1**
Perchlorates — **I6**
Perchloric Acid — **I6**
Permanganates — **I8**
Peroxides (inorganic) — **I6**
Peroxides (organic) — **O6**
Phenols — **O8**
Phosphates — **I2**
Phosphides — **I5**
Phosphorus — **I10**
Phosphorous Pentoxide — **I10**
Polysulfides — **O7**
Selenides — **I5**
Silicates — **I4**
Stains — **O9**
Sugars — **O2**
Sulfates — **I2**
Sulfides (inorganic) — **I5**
Sulfides (organic) — **O7**
Sulfites — **I2**
Sulfoxides — **O7**
Sulfur — **I10**
Thiosulfates — **I2**

"Your Safer Source for Chemicals"

P.O. Box 219, Batavia, IL 60510 • 800-452-1261 • flinn@flinnsci.com • www.flinnsci.com
AP6196

Shelf Storage Pattern – Inorganic

Note: Chemicals of different code stored on the same shelf must be separated by 3-4 inches and in individual containers/trays when possible.

SUGGESTED SHELF STORAGE PATTERN—INORGANIC

INORGANIC #10
Sulfur, Phosphorus, Arsenic, Phosphorus Pentoxide

INORGANIC #2
Halides, Sulfates, Sulfites, Thiosulfates, Phosphates, Halogens, Acetates, Oxalates, Phthalates, Oleates, Iodides

INORGANIC #3
Amides, Nitrates (not Ammonium Nitrate), Nitrites, Azides
(Store Ammonium Nitrate away from all other substances—*ISOLATE IT!*)

INORGANIC #1
Metals & Hydrides
(Store away from any water.)
(Store flammable solids in flammables cabinet.)

INORGANIC #4
Hydroxides, Oxides, Silicates, Carbonates, Carbon

If possible avoid using the floor.

INORGANIC #7
Arsenates, Cyanides, Cyanates
(Store away from any water.)

INORGANIC #5
Sulfides, Selenides, Phosphides, Carbides, Nitrides

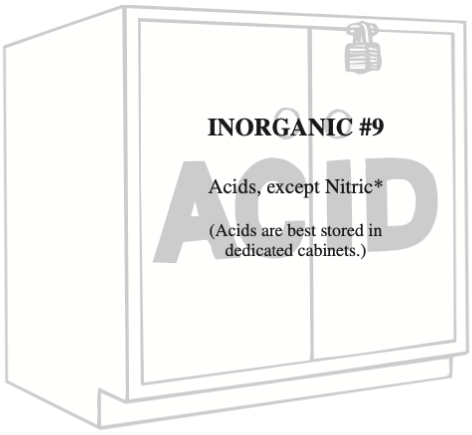
INORGANIC #8
Borates, Chromates, Manganates, Permanganates, Molybdates, Vanadates

INORGANIC #6
Chlorates, Bromates, Iodates, Chlorites, Hypochlorites, Perchlorates, Perchloric Acid, Peroxides, Hydrogen Peroxide

MISCELLANEOUS

Storage Suggestions

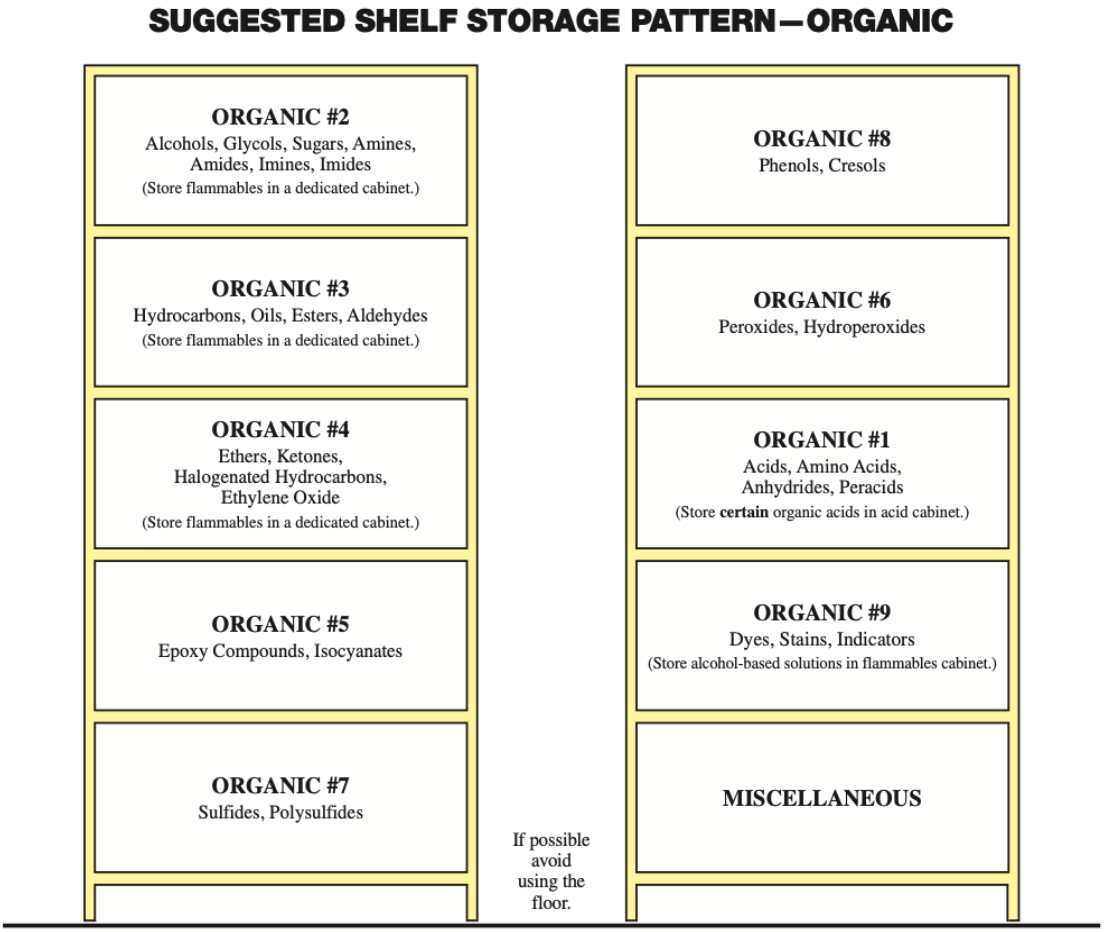
1. Avoid storing chemicals on the floor (even temporarily).
2. No top shelf chemical storage.
3. No chemicals stored above eye level.
4. Shelf assemblies are firmly secured to walls. Avoid island shelf assemblies.
5. Provide anti-roll-off lips on all shelves. (Catalog No. SE1069)
6. Ideally, shelving assemblies would be of wood construction.
7. Avoid adjustable metal shelf supports and clips. Better to use fixed, wooden supports.
8. Store acids in a dedicated acid cabinet. Store nitric acid in the same cabinet **only** if isolated from other acids. Store both inorganic and some organic acids in the acid cabinet.
9. Store flammables in a dedicated flammables cabinet.
10. Store severe poisons in a dedicated poisons cabinet.

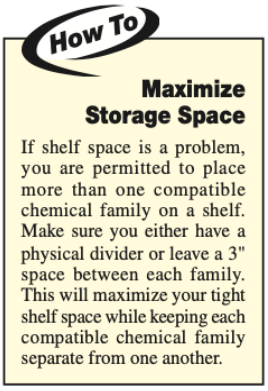


*Store nitric acid away from other acids unless your acid cabinet provides a separate compartment for nitric acid.

Shelf Storage Pattern -ORGANIC

Note: Chemicals of different code stored on the same shelf must be separated by 3-4 inches and in individual containers/trays. same shelf must be separated by 3-4 inches and in individual containers/trays when possible.





APPENDIX 5: Specific Rules for Creative Arts Classrooms

A. All chemicals used in visual arts classrooms shall be stored in their original containers and maintained in accordance with manufacturers suggested guidelines.
B. All flammable chemicals shall be stored in an isolated cabinet having minimal student access.
C. Staff shall instruct students on the safe use and handling of all equipment and materials prior to each activity.
D. Students and staff shall have access to and properly wear Personal Protective Equipment (PPE) as indicated on chemical labels and/or Safety Data Sheets (SDS).
E. Purchases of chemicals to be used in Art classes should be limited to amounts that can be safely stored.

INVENTORY

A. Chemicals in art classrooms shall be inventoried at least once per year, preferably prior to the start of each school year.
B. Inventory documentation must include: name of chemical product, actual quantity amount and room/s locations where stored in the building.
C. A hardcopy of the inventory and SDS shall be filed alphabetically in the District provided yellow binder and easily located in each individual classroom and the main office.
D. All mechanical and safety equipment utilized in Art Classrooms shall be inspected for safe operability by the staff prior to the first student contact day and regularly as necessary during the school year.

APPENDIX 6: Specific Rules for Automotive Technology, Stagecraft and/or Vocational Classrooms

A. All chemicals used in Automotive Technology and other Vocational Classrooms shall be stored in their original containers and maintained in accordance with manufacturers suggested guidelines.
B. All flammable chemicals are to be stored in a locked appropriately fire rated flammables cabinet.
C. Staff shall instruct students on the safe use and handling of all equipment and materials prior to each activity.
D. Students and staff shall have access to and properly wear Personal Protective Equipment (PPE) as indicated on chemical labels and/or Safety Data Sheets (SDS).
F. Purchases of chemical to be used in Automotive Technology and other Vocational Classrooms should be limited to amounts that can be safely stored.

INVENTORY

A. Chemicals in Automotive Technology and other Vocational Classrooms shall be inventoried at least once per year, preferably prior to the start of each school year.
B. Inventory documentation must include: name of chemical product, actual quantity amount and room/s locations where stored in the building.
C. A hardcopy of the inventory and SDS shall be filed alphabetically in the District provided yellow binder and easily located in each individual classroom and the main office.
D. All mechanical and safety equipment utilized in Automotive Technology and other Vocational Classrooms shall be inspected for safe operability by staff prior to the first student contact day and regularly as necessary during the school year.

APPENDIX 7: Specific Rules for Custodial Services

A. Stay current with legal requirements concerning chemical and hazardous waste management, including appropriate training for handling and storing hazardous waste.
B. Ensure custodial chemicals storage is compliant with District Chemical Hygiene Plan (CHP)
C. Ensure custodians at each building are familiar with the CHP as it relates to their job responsibilities and make available training as necessary
D. Work with individual school custodial teams to ensure a thorough inventory of all custodial chemicals completed and documented with exact quantities prior to the start of each school year.
E. All custodial chemicals shall be stored in their original containers in a location away from students; with limited access to staff only.
F. All flammable chemicals are to be stored in a locked appropriately fire rated flammables cabinet.
G. Individuals utilizing custodial chemicals shall have access to and utilize appropriate Personal Protective Equipment (PPE), as indicated on chemical labels and/or Safety Data Sheet (SDS)
H. Custodial chemical purchases should be limited to amounts that can be safely stored.

INVENTORY

A. Custodial chemicals shall be inventoried minimally once per year preferably prior to the start of each new school year.
B. Inventory documentation must include: name of chemical product, actual quantity amount and room locations where stored in the building.
C. A copy of the custodial inventory and SDS shall be visibly located in both the Custodian and Main Offices.