Science Classroom Safety

Proper Chemical Storage and Labeling

Keep everyone safe by ensuring chemicals are properly stored, labeled, and locked up.

Safety is one of the first lessons in science classrooms and a guiding principal in all labs. Ensuring all chemical compounds are properly stored and labeled is the foundation of a safe lab. But when space is sparse, how do you safely store chemicals? This handout is made with small spaces in mind. Just make sure everything is properly identified and labeled with the correct OSHA-based warning signs.

CHEMICAL LABELS

Make sure all of your chemicals have the appropriate warning label, in addition to the name of the chemical compound on the container.

Four Chemical Storage Reminders

- **Traditional fridges are not the place to store flammable liquids.**
- **Chemical storage should always be at or below eye level--never above.**
- **Fume hoods are only meant for fumes--not as a storage space.**
- **Organics and inorganics should always be separate.**

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Small Space Chemical Storage

If space is limited, this guide can help you ensure your space is safe.

The chemical numbering used below is based on the Washington State Department of Health School Chemical List, which can be found on our website under School Safety.

Inorganic Reactives and Metals (1-1, I-10) i.e. Sulfur, Solid Metals, Hydrides, Lithium	**Organic Toxins (O-5, O-7)** i.e. Epoxy Compounds, Isocynates, Sulfides, Polysulfides
Inoragnic Salts (I-2) i.e. Cholrides, Iodided, Flourides, Bromides, Sulfates, Sulfites, Thiosulfates, Phosphates	**Organic Reactives (O-6)** i.e.Peroxides, Azides, Hydroperoxides
Inorgranic Oxidizers (I-3, I-6, I-8) i.e. Nitrates, Nitrites, Borates, Chromates, Manganates, Permanganates, Chlorates, Chlorites, Peroxides, Azides	**Flammable Storage Cabinet (O-2, O-3, O-4, O-8, and Concentrated Organic Bases)** i.e. Alcohols, Glycols, Phenol, Hydrocarbons,
Inorganic Corrosive Bases (O-4) (Dry Chemicals) i.e. Dry Hydroxieds, Oxides, Silicates, Carbonates, Carbon	**Dry and Dilute Organic Acis and Anhydrides (O-1)** i.e. Cirtic Acids, Anhydrides, Peracids, etc.
Inorganic #5 and #7 Toxins i.e. Sulfides, Phosphides, Carbides, Nitrides	**Miscellaneous** i.e. Household Chemicals (inegar, baking soda, vegetable oils), Dyes, Stains, Agars, Sugars, Gels
Corrosive Base Storage Cabinet (I-4 Liquids) i.e.>1.0 molar Ammonium Hydroxide, Sodium Hydroxide, Calcium Hydroxide (limewater), Potassium Hydroxide, Oxides, Silicates	**Non-Metal Corrosive Acids Storage Cabinet (I-9 Liquids)** i.e. Hydrocholric Acid, Sulfuric Acid, Hydrobromic Acid, Phosphoric Acid, Percholic Acid. ***Nitric Acid stored separately in this or another cabinet.***

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