Lane Community College - Safety Instructions

Rev. 12/2025

Chemical Storage Guidelines

General Storage Guidelines

- Store chemicals only in cool, dry, well-ventilated areas, NOT in direct sunlight or near a heat source.
- Avoid storing chemicals on the floor. If unavoidable, then store in a secondary containment bin.
- Store liquids separate from solid materials and try to keep liquids below eye level.
- Provide secondary containment for large amounts of hazardous liquids.
- Separate chemicals by their hazard categories and separate incompatible chemicals. Use the CHEMICAL SEGREGATION FLOW CHART and safety data sheets (SDS) to determine proper group.
- Record received and opened date on the label of all time-sensitive chemicals.
- DO NOT remove original labels from containers. Replace labels only if they are not legible. Provide appropriate GHS information.
- Return chemicals to designated storage location when not in use.
- Carefully reseal opened containers before returning to storage. Replace broken, cracked or deteriorated caps.
- Labeling secondary containment bins with the storage group name is recommended.
- Clearly separate chemical storage from hazardous waste storage.

Instructions & Options for Determining the Chemical Storage Groups

1. Use the online SDS system and go on to Step 2, or look up the SDS for each chemical to be stored and use the TEMPLATE-Chemical Compatibility Table to make a table of chemicals and their hazard properties, then skip to Step 9.
2. Log into the online SDS system with your Administrator credentials.
3. Click on the “Reports” tab, then select Compliance Reports.
4. Select “Compliance Statuses – GHS.”
5. Click on the “Report Type” box and select “Compliance Statuses.”
6. Click on the “Report Format” box and select “Web Based HTML” (or “PDF” if preferred).
7. Click on “Create Report.”
8. Click on the “GHS Pictogram” column header to organize your chemicals by hazard pictogram(s).
9. Use the **CHEMICAL SEGREGATION FLOW CHART** and Sections 7.2 - Conditions for Safe Storage and Section 10 - Stability and Reactivity of the chemical’s SDS to determine special storage requirements and compatibility.
10. Separate all chemical storage groups. Storage in separate cabinets or locations always meets this requirement and is preferred where space allows. Separating storage groups using secondary containment bins also meets this requirement, unless specifically prohibited in this guide.

Tips while using the Flow Chart

- If the product doesn’t have a GHS label/symbol, read Section 2 – Hazards Identification of the SDS.
- pH of liquids can be found in Section 9 – Physical and Chemical Properties.

Chemical Segregation Flowchart

Note:
This chemical segregation flow chart provides general guidelines for chemical storage. The users must always refer to the safety data sheets (SDS) for necessary information on Globally Harmonized Symbols (GHS) and warning (Section 2), chemical storage (section 7) and incompatibilities (Section 10) for a proper chemical segregation. Refer to page 2 for details of GHS pictograms.

Solids and liquids

- Explosive (e.g. dry picric acid) or potentially explosive (e.g. organic peroxides) — YES → Store in compliance with SDS recommendations in designated areas (e.g. flammable cabinets) away from ignition sources . Secure / limit access to product.
- NO → Flammable — YES → Highly reactive(water reactive/pyrophoric) e.g. Metals, metal hydrides, metal amides, organometallics — YES → Store in compliance with SDS recommendations. Store under an inert atmosphere or cool, dry and well ventilated place away from water, aqueous solutions, oxidizers, flammable and combustibles.
- NO → Less reactive solids — YES → Corrosive — YES → Place in a secondary container and store in a flammable safety cabinet / ventilated cabinet dedicated to flammable solids away from sunlight, and potential source of heat. Segregate from incompatibles.
- NO → Corrosive — NO → Store in a flammable safety cabinet / ventilated cabinet dedicated to flammable solids, away from sunlight, and potential source of heat.
- NO → Less reactive liquids — YES → Corrosive — YES → Place in a secondary container and store in a flammable safety cabinets dedicated to flammable liquids. Segregate from incompatibles.
- Corrosive — NO → Store in flammable safety cabinet dedicated to flammable liquids.
- NO → Non-flammable corrosive — YES → Highly reactive (water reactive / pyrophoric) e.g. metal and non metal halides — YES → Store in compliance with SDS recommendations. Store in an inert atmosphere or cool, dry and well ventilated place away from water, aqueous solutions, oxidizers, flammables and combustibles.
- NO → Oxidizing — YES → Mineral acid — YES → Store in corrosive cabinet for acids. Segregate from organic acids, non-oxidizing mineral acids, reducing agents and combustibles.
- Mineral acid — NO → Store in compliance with SDS recommendations in a dedicated corrosive area. Segregate from combustibles and reducing agents.
- NO → Non-oxidizing acid — YES → Mineral — YES → Store in corrosive cabinet for acids. Segregate from organic and oxidizing acids.
- Mineral — NO → Organic — YES → Store in a corrosive cabinet for acids. Segregate from mineral and oxidizing acids.
- NO → Non-oxidizing base — YES → Mineral — YES → Store in corrosive cabinet for bases. Segregate from organic and oxidizing bases.
- Mineral — NO → Organic — YES → Store in corrosive cabinet for bases. Segregate from mineral and oxidizing bases.
- NO → Non-corrosive oxidizer — YES → Store in a cool, dry and well-ventilated cabinet dedicated for non-corrosive oxidizers.
- NO → Non-flammable, non-corrosive, non-oxidizing toxins — YES → Volatile — YES → Store in a well ventilated cabinet in compliance with SDS recommendations.
- Volatile — NO → Store in chemical storage cabinet/ open shelving in compliance with SDS recommendations.
- NO → Non-hazardous — YES → Store in open shelving

Gasses

- Gas — YES → Flammable — YES → Store in well ventilated areas away from oxidizing (20 ft) and toxic gases, combustible materials and ignition sources.
- NO → Oxidizer — YES → Store in well ventilated areas away from flammable (20 ft) and toxic compressed gases.
- NO → Toxic/Corrosive — YES → Store in compliance with SDS recommendations. Chemical fume hoods, gas cabinets and exhausted enclosures shall be used for handling and storage. Store away from flammable and oxidizing gasses.
- NO → Inert — YES → Store in ventilated areas (e.g. normal lab ventilation).

Globally Harmonized System (GHS) Pictograms

Health Hazard	Flame	Exclamation Mark
		
• Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity	• Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides	• Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder	**Corrosion**	**Exploding Bomb**
		
• Gases Under Pressure	• Skin Corrosion/Burns • Eye Damage • Corrosive to Metals	• Explosives • Self-Reactives (severe) • Organic Peroxides (severe)
Flame Over Circle	**Environment (Non-Mandatory)**	**Skull and Crossbones**
		
• Oxidizers	• Aquatic Toxicity	• Acute Toxicity (fatal or toxic)