



Sackler Faculty of Medicine  
Tel Aviv University

January 15, 2020

## The Safety Unit – Sackler Faculty of Medicine

### Chemicals Liquid Storage

Chemicals are classified in groups (list below prepared by Dr. Menachem Genut, TAU Safety Unit). To comply with regulations and keep employees safe, the proper storage of these hazardous ensures a safe environment.

**Requirements for chemicals liquid storage at Sackler building:**

1. **Flammables:** to store in “Yellow safety cabinets” with trays as secondary containments.



For chemical transport use a basket

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2. **Corrosive chemicals:** classified as basic and acid. They can be store as follows:
  - 2.1. **Labs with chemical hood:** to store in wood cabinets under the chemical hood. Corrosive basic and acid separated in secondary containments. The hood must work 24 hours.
  - 2.2. **Labs WITHOUT chemical hood:** to store in wood ventilated cabinets inside the lab. Corrosive basic and acid separated in secondary containments.
  - 2.3. **Labs WITHOUT chemical hood and without wood ventilated cabinets:** Corrosive chemicals should be store in “corrosive blue cabinets” (matching ongoing with Safety Unit). Corrosive basic and acid should be store in different shelves and separated with trays as a secondary containment.



Chemicals cannot be stored in hallways or in ordinary lab closets.

For better safety, and to avoid potential harm, each lab must reduce its liquid chemicals stock, starting with proper disposal of bottles past expiry dates.

Tel Aviv University safety policy is based on Israeli laws (<https://safety.tau.ac.il/Safety-in-chem-lab>).

Sincerely,

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## Safe storage of liquids commonly used in TAU labs

### Group A- Flammable Materials (UN group 3)

The Following Chemicals should be stored in a "Flammable Materials Cabinet" Only:

- 1-butanol
- Acetone
- Acetonitrile
- Chloroform
- Diethyl ether Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are
- Diethylformamide
- Dimethylformamide
- DMSO
- Eosin
- Ethanol
- Ethyl acetate
- Ethylene glycol
- Formaldehyde
- Formaldehyde
- Formalin
- Hexane
- Isopropanol
- K clear plus
- Methanol opened must be carefully resealed and kept upright to prevent leakage.
- Phenol
- Toluene
- Xylene-

### Group Ba- Corrosive- Alkaline Materials (UN group 8)

#### Corrosive- Alkaline Materials

- Ammonium Hydroxide
- Diethanolamine

### Group Bb- Corrosive- Acidic Materials (UN group 8)

#### Corrosive- Acidic Materials

- Acetic acid
- Hydrochloric acid
- Lactic acid
- Perchloric acid
- Sulfochromic acid
- Sulfuric acid
- Trichloroacetic acid
- Trifluoroacetic acid

### Group Bc- Corrosive (UN group 8)

#### Corrosive

##### Sodium Hypochlorite

"Incompatible with acids, metals, metal salts, peroxides, reducing agents, and ethylene diamine tetra acetic acid. Incompatible with ammonia and ammonium compounds such as amines and ammonium salts."

### Group C- Toxic Materials (UN group 6)

#### TOXIC MATERIALS

- Dichloromethane
- Glutaraldehyde
- Hematoxylin
- Monoethylene glycol
- Mounting medium
- osmium tetroxide 4%

### Group D- Oxidizing Materials (UN group 5)

#### oxidizing agents

##### Hydrogen peroxide

### Group E- Store in explosion-proof refrigerator-

Store in explosion-proof refrigerator- Flammables area

##### Formic acid

Incompatible Materials Strong oxidizing agents, Metals, Powdered metals, Strong bases

### Group F- Should be Kept refrigerated.

Should be Keep refrigerated.

**Paraformaldehyde**- Incompatible Material - Water

### Group G- Should Kept under nitrogen.

**Store under nitrogen** Store in a cool, dry place. Store in a tightly closed container.

##### Ethanolamine

Incompatibilities with Other Materials: Oxidizing agents, acids, acid chlorides, aluminum, anhydrides, copper, galvanized iron

### Group H- Should be Kept protected from light.

Special Group- Protect from light

##### Phenol

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from light.

Prepared by Dr. Menachem Genut/ Chemical safety Manager, TAU, by screening the SDS's of the chemicals.

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