This document describes the baseline requirements necessary for safe storage, use, handling and disposal of chemicals that have been designated as “particularly hazardous” by Cal/OSHA.

Careful handling and stringent controls of these chemicals are essential in order to protect workers and the environment from contamination and to comply with Title 8 of the California Code of Regulations, Section 5209.

Additional requirements may apply, depending on the specific chemical. Examples include carcinogens that are also highly flammable and/or reactive. Contact EH&S to see if the chemical you plan to use requires further controls.

1. **Type of SOP**

   **Hazardous chemical:** potassium hydroxide

2. **Hazardous Chemical Description**

   Please refer to the MSDS sheet of potassium hydroxide

3. **Potential Hazards**

   Please refer to the MSDS sheet of potassium hydroxide

4. **Circumstances Requiring Prior Approval**

   Any new user or first-time user of potassium hydroxide should notify the lab staff or manager prior to usage.

5. **Personal Protective Equipment (PPE)**

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   - Chemical safety goggles and face shield
   - Lab coverall gown & natural rubber apron
   - Chemical resistant gloves (nitrile – arm length)
   - Full length pants
   - Close toed rubber or leather shoes

6. **Engineering Controls**

   Work with hydrochloric acid in fume hood or with local exhaust ventilation. Use only in areas free of ignition sources.

7. **Special Handling and Storage Requirements**
Keep in a tightly closed container. Store in rated flammable liquid storage cabinet or flammable liquid storage room. Store with compatible materials (e.g., away from oxidizers).

8. Spill and Accident Procedures

Ventilate area of accident or spill. Remove all sources of ignition. Wear appropriate personal protective equipment per individual MSDSs. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible or absorb with an inert material (vermiculite, dry sand, earth) and place in a chemical waste container. Do not use combustible materials, such as sawdust. DO NOT FLUSH DOWN DRAINS. Report to Nanolab Staff

**First Aid Measures:** Contact Nanolab staff if exposure warrants medical treatment

**Inhalation:** Remove to fresh air.

**Ingestion:** Give large quantities of water if person in conscience. Do not induce vomiting.

**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Eye Contact:** Immediately flush eyes with a gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally.

**Small spills:** Remove all ignition sources. Neutralize the spill with corresponding neutralizer. Absorb with cleanroom wipes or pillows. Place all the used wipes and pillows inside a spill bag and label the bag as hazardous waste. Put the bag in designated chemical waste area. Contact Nanolab staff.

**Large spills:** Notify others in room of spill. Extinguish all ignition sources. Evacuate room/immediate area. Notify Nanolab staff for cleanup. Post room with warning notifying others of spill. Prevent unnecessary entry into area until arrival of Nanolab staff. Respiratory protection should be used during spill cleanup. Provide assistance and information to spill responders.

Please refer to the MSDS sheet for more detail information.

9. Decontamination Procedures

Rinse exposed container with water for at least 5 minutes.

10. Waste Disposal Procedures
Collect and label as hazardous waste. Put the waste in the designated area for chemical wastes.

11. Designated Area

Under fume hoods inside the cleanroom.

12. Material Safety Data Sheet (MSDS) Location

On the stands next to the entrance of the cleanroom.