

SOP for Base Bath Cleaning Solution

1. General

When working with a chemical for the first time, please consult a safety data sheet (SDS) to identify the material hazards and proper handling and storage procedures.

Base baths are used to clean glassware in chemistry labs. It is a caustic alcoholic solution that cleans by degrading/dissolving organic compounds and etching glassware. The base bath is flammable due its composition of mostly isopropanol (or ethanol). In addition to causing **caustic burns**, it should be noted that **no pain is felt immediately upon contact with skin**, but rather after some damage has already been done. Therefore, it is important to wear proper personal protective equipment (PPE) and be diligent when using the bath.

2. Personal Protective Equipment

The use of the base bath requires special protection equipment including: **lab coat, safety glasses, and neoprene gloves** (with latex or nitrile gloves underneath). Close-toed shoes are required. It should also be noted that drops of base bath lead to holes in clothing.

3. Base Bath Handling and Storage

The **base bath should be covered at all times and stored in secondary containment** to eliminate spills. Base bath should be stored in thick, plastic containers (not glass).

To make a new base bath, potassium hydroxide (500g) should be first dissolved in 1L water in a beaker. Beware that the solution will become very hot upon dissolution. This solution should be added to 12L of isopropanol in a large Nalgene container.

4. Base Bath Waste Disposal

Base bath should be disposed of like any other caustic solution. First, it must be removed from its plastic container, either by siphoning into a waste container, or by removing 1L at a time using a large beaker. The solution should be put into waste containers, labeled, and requested for pickup by campus service.

Waste containers should no more than 95% full, and should stay in the lab for no more than 6 months from the day the waste container is started. Waste containers must be marked to identify the contents, hazards, and accumulation start and end dates.

5. Emergency Procedures

In case of a large exposure, the victim should be removed from the contaminated area, placed under a safety shower while emergency personal are contacted. In case of a large spill the area should be evacuated. Smaller spills can be cleaned by absorbing the liquid with dry sand.

All contaminated clothing should be removed immediately with appropriate gloves and safely discarded.

In case of contact with the skin, the affected area must be immediately rinsed with large amounts of water for at least 15 min.

In case of contact with the eye, irrigate the eye for at least 30 minutes, keeping the eyelids apart and away from eyeballs during irrigation. Place ice pack on eyes until reaching emergency room.