**SOP for 1,2-Dichloroethane (CAS: 107-06-2)**

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**SAFETY:** This material is toxic, corrosive, highly flammable, carcinogen. Use with adequate ventilation (always under fume hood or inside glove box). Wear gloves (nitrile gloves) and other appropriate protective apparel (Face shield AND safety glasses).

**IMPORTANT NOTE: Don’t touch the substance. When peeling off the gloves, avoid skin touch with substance. Avoid inhalation and ingestion. Wash your hands thoroughly after you are done.**

**Storage:** Keep away from sources of ignition, prevent the build-up of electrostatic charge. Keep in a cool, dry, well-ventilated area.

**Waste disposal:** Do not dispose waste into sewer. Dichloromethane is a very strong solvent for polymers and plastics. Dispose generated liquid waste from Dichloromethane only in glass containers and avoid mixing it with other solvents. Double-bag generated dry waste (samples, wafers, etc.) using sealable transparent bags.

**Spill and Accident Procedure:** Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Do not attempt clean-up without minimum PPE. Contact Uwaterloo’s Spill control ext. 519-888-4911 or ext. 22222.

**SOP:**

This material is going to be used primarily to remove organic coatings such as photoresists, PMMA, PMDS, polymers residuals that are not easily being removed by normal acetone cleaning and are not compatible with O2 plasma ashing.

1. Wear proper PPE (face shield, safety goggles, nitrile gloves and flame resistant lab coat preferably made of antistatic material).
2. The solvent (here Dichloroethane) will be transferred to small vials with close and tight caps. The transfer should be done under fume hood with proper protective equipment (PPE) such as googles, face shield, nitrile gloves. In the case of poor ventilation, a proper respiratory should be worn or the transfer should happen inside glove box.
3. Open the cap of the vial under the fume hood with proper ventilation and put your sample inside the vial and tighten the cap. Often 30 minutes is enough to remove the organic coating (no agitation or sonication is required). Make sure that the ventilation system works and there is enough air flow. If the ventilation is poor, use glove box to do this.
4. Take your sample out and dispose the leftover Dichloroethane in a designated waste disposal container. Don’t mix it with other solvents.
5. Don’t store the waste and solvents in small vials for more than 90 days.