

U n i v e r s i t y o f C a l i f o r n i a

Office
of
Environmental
Health
and
Safety

Chemical Safety
Update

S a n F r a n c i s c o

Emergency Procedures for Phenol/Chloroform

CSU15

Phenol/Chloroform Spills

Chloroform and phenol are both highly toxic. Chloroform, however, is highly volatile and phenol is not. Laboratory personnel may safely clean up small spills but larger spills (> 100 mL) require respiratory protection and the UCSF emergency response team (ERT). If you feel you can safely clean up a spill, OEHS advises you to do so. Remember—spills in fume hoods are safer to clean up because you are protected from inhalation. To clean up a spill, use absorbent paper to soak up the liquid. Place the soaked absorbent paper in a fume hood, and pack it inside a clear plastic bag for disposal. Attach a waste tag on the bag, complete a waste removal form and mail or fax the form to OEHS. For larger spills evacuate the area and call 9-911 to arrange for ERT assistance.

Special Procedures for Phenol Splashed on the Skin

In case of skin contact with phenol, TRIZOL[®], or a phenol:chloroform mixture, immediately flush skin with large amounts of soapy water. Remove contaminated clothing and shoes. As soon as possible, apply isopropanol (IPA) or polyethylene glycol (PEG) 300 or polyethylene glycol 400 to the affected area, and continue to flush the skin with soapy water for a minimum of 15 minutes. Inform your supervisor, and go to the nearest emergency room. Due to the seriousness of phenol burns, laboratories that regularly use phenol must keep a designated container of IPA or PEG for cleaning skin splashed with phenol.

Chloroform Splashed on the Skin

Although chloroform is hydrophobic, it does not penetrate the skin to the degree that phenol does. Using water for 15 minutes is therefore sufficient to decontaminate the skin. Given chloroform's hydrophobicity, using soapy water may be beneficial, but it is not necessary. Inform your supervisor, and go to the nearest emergency room.

Phenol or Chloroform Splashed in the Eyes

Immediately proceed to the nearest eyewash station. Flush your affected eye(s) with copious amounts of water for 15 minutes. Make sure you separate your upper and lower eyelids while flushing. Inform your supervisor and immediately go to the nearest emergency room.

Accidental Ingestion of Phenol or Chloroform

DO NOT induce vomiting. Inform your supervisor, and immediately go to the nearest emergency room.