

## THE OCCUPATIONAL SAFETY HEALTH ADMINISTRATION - OSHA FOR THE WORKERS

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Care Center St. Joseph Mercy Hospital, Pontiac The National Institute for  
Occupational Safety and Health (NIOSH) recommends the following appropriate preventive  
measures to reduce or eliminate the adverse health and safety effects of physical,  
chemical or toxic gas exposures to their workers. The OSHA (Occupational Safe Healthy  
Association) also recommends the use of adequate fitting respirators for the workers who  
are exposed to toxic fumes that are immediately dangerous to life or health. Under  
the NIOSH respirator decision logic, the most protective respirators, i.e. a self contained  
breathing apparatus equipped with a full face piece and operated in a pressure  
demand or other positive pressure mode would be selected for the firefighters, exposure to  
carcinogens, entry into oxygen deficient atmospheres, in emergency situations during  
entry into an atmosphere containing a substance at a concentration greater than 2000  
times the NIOSH recommends and for an entry into IDLH (immediate danger to life and  
health atmosphere). Safety precaution tips towards occupational exposures to  
chemicals and physical hazards for workers:

1. A general safety measure involves no eating, no drinking or no smoking in the general areas where the chemicals are being used.
2. Wear protective glasses to prevent your eyes against contact with the chemical irritants.
3. Accidents involving Radiation hazards. Since the majority of accidents involving the radioactive materials occur in the facilities that uses these materials, protect yourself if you are working in those environments. The risk of further radiation exposure occurs when:
  1. The source of radiation is still present and active.
  2. Radioactive material has spilled on the patient. Before entering the involved area, put on protective clothing and rubber gloves. If the materials have spilled on your clothes, remove the clothing and wash yourself thoroughly. The clothing should be stored in radioactive waste containers. If you are a factory worker involved with dealing hazardous materials, understand and make yourself familiar with the various toxicity of the materials and learn to protect yourself as well as the process of decontamination. The Chemical Manufacturers Association has established the Chemical Transportation Emergency Center (CHEMTREC) in Washington, D.C. and they can be contacted 24 hours a day by calling a toll-free number 1-800-424-9300 regarding information on any hazardous material.

In case an accident happens:

1. Remove yourself outside of the area and breathe fresh air.
2. Brush off any solid material that may remain on your body and clothes.
3. In case of chemical burn, flood the skin with water then treat the burn area accordingly.
4. If accidental swallowing of toxic material has happened, ask for immediate medical help, induce vomiting and take activated charcoal as indicated.
5. There are four accepted methods of decontamination that everyone should be aware of:
  - a. Dilution - means flushing the contaminated person or equipment with water.
  - b. Absorption - the use of filters and chemicals to absorb the hazardous material.
  - c.

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Chemical washes to neutralize the hazardous material. d.  
Proper disposal and isolation of the contaminated materials. A few  
further safety tips for personal protection: 1. Protect the airway by wearing  
appropriate mask or respirator as indicated. 2. In case of  
emergency, evaluate the area and try to get fresh air. 3. Prevent skin  
contact by wearing appropriate personal protective clothing and rubber gloves. For  
protection against frostbite, wear layered protective clothing to prevent  
the skin from becoming frozen by contact with the cold liquid or cold metal bottles.  
In case frostbite develops remove the clothing, warm the extremity in  
warm, heated water, elevate the area and seek medical help. 4. Prevent  
eye contact by wearing protective glasses, avoid using contact lens and in case of  
emergency, wash your eyes thoroughly and ask for medical help.