

Preventing Chemical Inhalation and Eye Contact

- Treat all chemicals and solvents as potential hazards from initial delivery to ultimate use.
- Every worker is responsible for knowing the hazards associated with the chemicals they use. Take time to read the labels and ask questions if you do not understand how to use the chemical by itself or in combination with other chemicals.
- Take time to learn the location of the eyewash/safety shower stations and other first aid supplies located throughout the work environment.
- Consider these hazards when selecting a chemical:
 - Will contact with the chemical cause skin rash or dermatitis, corrosive burns or eye damage?
 - Am I prepared to administer emergency first aid in the event of injury/illness resulting from chemical exposure?
 - Is this chemical a potential explosive or a fire hazard?
 - Can this chemical be absorbed through the skin?
 - Can I substitute a less-hazardous chemical (e.g., safety solvent) for this chemical?
 - What type(s) of engineering controls (e.g., mechanical ventilation) are in place, or should be provided, to minimize chemical exposure?
 - What type of personal protective equipment will be needed when using this chemical?
 - Will inhalation of this chemical or the gases, vapors and/or dust associated with it cause asphyxiation, intoxication, or damage to the mucous membrane and internal organs?
- Select all chemical materials on the basis of worker safety, the ability to meet specific performance requirements, and ease of disposal.
- Store and handle all chemicals according to the instructions on the label.
- Do not store acids and bases or oxidizers and reducers in the same cabinet because of the possibility of an extremely violent reaction between the two.
- When personal protective equipment (PPE) is recommended by the chemical manufacturer, use it! Depending on the chemical, applicable PPE might include chemical-impervious gloves, apron, coveralls, boots, eye goggles, face shield, and/or respirator. Oil/water based barrier creams can also be used to prevent chemical contact with hands and arms.

Safety Tips from the WorkSafe People

- Prior to wearing any respirator, your employer should implement a “Respiratory Protection Program,” which includes: employee training in the use, care and limitations of the respirator(s); employer selection of employees who will wear respirators that is based on individual medical history; and respirator “fit-testing” to ensure adequate fit and performance. Disposable, air-purifying respirators, if used in exposure conditions that do not exceed OSHA health limits, may be subject to voluntary use by employees; whereby, the medical evaluations and fit-testing are not required.
- Check all PPE before and after use for signs of wear or damage.

Glossary of Common Terms Related to Chemical Hazards

Chronic: Longer period of exposure before it reacts with the individual

Acute: Reacts almost immediately with the individual

Local: Contact on skin and eyes

Systemic: Chemical was ingested or inhaled

Danger: Highest degree of hazard (chemicals in this category have a flash point below 100°F)

Warning: Intermediate degree of hazard (chemicals in this category have flash points between 100°–200°F)

Caution: Lowest degree of hazard (chemicals in this category have flash points between 200°–1500°F)