UCR Environmental Health & Safety

Spotlight On Safety

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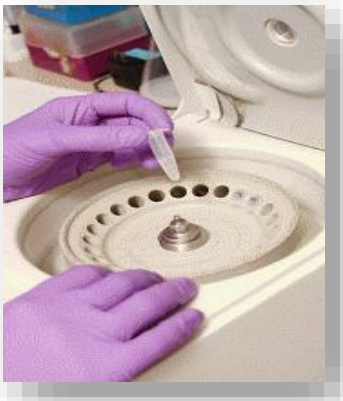
Selecting Chemical-Resistant Gloves



The most common injury in the workplace is dermatitis, an inflammation of the skin often resulting from contact with chemicals. The choice of proper gloves is an essential step in protecting skin from contact with chemicals. However, no glove material is absolutely impermeable. Gloves should not be used as a substitute for procedural changes that remove your hands from the area of potential contamination. Chemicals may penetrate glove materials through seams, tears, or imperfections in the glove material. The glove material can also absorb chemicals resulting in skin contact.

Factors to Consider in Glove Selection

- Type, concentration, and temperature of the chemicals
- Frequency and duration of contact with chemicals, abrasion resistance
- Dexterity/ grip characteristics of glove
- Length of body area to be protected (hand, forearm, arm)

Glove Materials

- Chemically resistant gloves are available in a variety of materials including natural rubber or latex, butyl, neoprene, nitrile, polyethylene, polyvinyl chloride, and combinations of these materials.
- Significant differences between various manufacturers' formulations of the same base material can affect performance.
- Form may affect performance (molded neoprene can have significantly different properties from coated neoprene)
- Physical integrity is important (a glove may provide excellent chemical resistance without adequate resistance to tears, punctures, or abrasions)
- Generally, the thicker the film of protective material, the better (but can impair skills
- Contact EH&S at 951-827-5528 if you have questions regarding manufacturer information and chemical compatibility charts that list the resistance of common glove materials.

Specialized gloves

If you require gloves for use with high amounts of flammable materials or cryogens based on the results of the Laboratory Hazard Assessment (LHAT) for your laboratory, please contact EH&S at 951-827-5528.

For more information, please visit www.ehs.ucr.edu or call 951-827-5528.