

# HAND PROTECTION GUIDELINE

Gloves reduce exposure of our hands to hazardous materials. No single material will protect against all chemicals; therefore, glove selection must be made depending on the chemical. Latex gloves may provide adequate protection against dilute aqueous solutions; however, they do not protect against exposure to solvents.

The information below is intended as a guideline for selecting the appropriate protective glove. Manufacturers can provide detailed information on the type of glove needed for specific applications.

## 1.0 Selection

### 1.1 Chemicals

No one material will protect against all chemical hazards. It is extremely important that gloves be selected based upon the chemicals being used. In some cases you may have to change gloves. Wearing two different pairs of gloves is not recommended when handling chemicals as the outer glove may hide damage or degradation of the inner glove.

**Table 1: Glove selection recommendations - This table is for general reference only. Consult the glove manufacturer, Safety Data Sheets, or the Safety Office for specific recommendations.**

Gloves	Material	Chemical resistance	
		Recommended	Not recommended
Latex	Natural rubber	Weak acids, weak bases, alcohols, aqueous solutions	Oils, greases and organics
Butyl	Synthetic rubber	Aldehydes, ketones, esters, glycol ethers, polar organic solvents	Aliphatic, aromatic and chlorinated solvents
Neoprene	Synthetic rubber	Oxidizing acids, bases, alcohols, oils, fats, aniline, phenol, glycol ethers	Chlorinated solvents
Nitrile	Synthetic rubber	Oils, greases, acids, caustics, aliphatic solvents	Aromatic solvents, many ketones, esters and many chlorinated solvents
PVA	Poly-vinyl alcohol	A wide range of aliphatic, aromatic and chlorinated solvents, ketones (except acetone), esters, and ethers	Acids, alcohols, bases and water
PVC	Poly-vinyl chloride	Strong acids, and bases, salts, other aqueous solutions, alcohols, glycol ethers	Aliphatic, aromatic and chlorinated solvents, aldehydes, ketones, nitro compounds

Gloves	Material	Chemical resistance	
		Recommended	Not recommended
Vitron	Fluoroelastimer	Aromatic, aliphatic and chlorinated solvents, and alcohols	Some ketones, esters and amines
Silver shield	Laminate	Wide range of solvents, acids and bases	

## 2.0 Care and Maintenance

Disposable gloves should be discarded after removal and never re-used. Contaminated gloves may need to be disposed of as hazardous waste.

Re-usable gloves (e.g., dishwashing gloves, gloves in glove boxes) must be cleaned and sanitized before being used by another individual. People may wish to use disposable gloves as a precaution when using shared gloves, but the shared gloves must still be cleaned and sanitized after use.

Shared gloves that cannot be cleaned or sanitized will require using a disposable glove as a liner for protection or will require washing and sanitizing hands before and after using the shared gloves. Examples of gloves that cannot be cleaned or sanitized are leather gloves or insulated gloves for handling very hot or very cold materials.

## 3.0 Limitations

When it comes to gloves, generally thicker is better. The thicker the glove, the more durable it is and the less likely that the wearer will come into contact with the hazard. However, increasing thickness decreases manual dexterity. This increases the risk of fumbling or dropping items and also increases the risk of incorrect operation of controls.

When wearing gloves, care should be taken to avoid touching your face or any other exposed skin. Long hair must be tied back to avoid inadvertently brushing stray hairs back.

Gloves must not be worn outside of the work area. Contaminated gloves should be removed immediately upon completion of the task. Contaminated gloves can easily cross-contaminate other surfaces such as door handles, light switches, control consoles, phones, etc. exposing others to the hazard.

## 4.0 Training

No glove will offer protection against all hazards or chemicals. It is important that each glove be selected for the hazard. Workers must be instructed on which glove to use given the circumstances. This should be documented in the standard operating procedures for the task at hand. Each worker should be signing off on the SOP indicating that they understand and will follow the procedures.

## 5.0 Record of Revisions

Date	Author/Editor	Change	Version
January 2025	Doug Dye	<ul style="list-style-type: none"><li>Removed reference to SafetyHub</li></ul>	Hand Protection Guideline v.1.2 JAN2025
February 2022	Doug Dye	<ul style="list-style-type: none"><li>Added link to safety video in training section</li></ul>	Hand Protection Guideline v.1.1 FEB2022
October 2020	Doug Dye	<ul style="list-style-type: none"><li>Guideline creation</li></ul>	Hand Protection Guideline v.1.0 OCT2020