

Cornell University Chemical Hygiene Plan

Glove Selection Guide

Chemical	Incidental Contact	Extended Contact
Acetic Acid	nitrile	neoprene, butyl rubber
Acetic Anhydride	nitrile (8 mil), double glove	butyl rubber, neoprene
Acetone	natural rubber (latex) (8 mil)	butyl rubber
Acetonitrile	nitrile	butyl rubber, polyvinyl acetate (PVA)
Acrylamide	nitrile	butyl rubber
<i>bis</i> -Acrylamide	nitrile	
Ammonium Hydroxide	nitrile	neoprene, butyl rubber
Arsenic Salts	nitrile	
Benzotriazole, 1,2,3-	nitrile	
Bismuth Salts	nitrile	
Cadmium Salts	nitrile	
Carbon Disulfide	nitrile (8 mil), double glove	viton, polyvinyl acetate (PVA)
Carbon Tetrachloride	nitrile (8 mil), double glove	viton
Catechol	nitrile	
Chloroform	nitrile (8 mil), double glove	viton, polyvinyl acetate (PVA)
Chromium Salts	nitrile	
Cobalt Chloride	nitrile	
Cobalt Salts	nitrile	
Copper (Cupric) Sulfate	nitrile	
3,3'-Diaminobenzidine (DAB)	nitrile	nitrile, double glove
Diazomethane in Ether	nitrile (8 mil), double glove	Norfoil
Dichloromethane	nitrile (8 mil), double glove	polyvinyl acetate (PVA) or viton
Diethyl Pyrocarbonate	nitrile	nitrile, double glove
Dimethyl Sulfoxide (DMSO)	¹ natural rubber (latex)(15-18 mil)	butyl rubber
1,4-Dioxane	nitrile (8 mil), double glove	butyl rubber
Dithiothreitol	nitrile	
Ethanol	nitrile	
Ethidium Bromide (EtBr)	nitrile	nitrile, double glove
Ethyl Ether	nitrile (8 mil), double glove	polyvinyl acetate (PVA)
Formaldehyde	nitrile	
Formamide	nitrile	butyl rubber
Formic Acid	nitrile (8 mil), double glove	butyl rubber, neoprene (30 mils)
Gallic Acid	nitrile	
Heptane	nitrile (8 mil), double glove	nitrile (35 mil or thicker), viton, PVA

Hexamethylenediamine (1,6-Diaminohexane)	nitrile (8mil)	neoprene
Hexane	nitrile (8 mil), double glove	nitrile (35 mil or thicker), viton, PVA
Hydrochloric Acid	nitrile	neoprene, butyl rubber
Hydrofluoric Acid (HF)	nitrile (8 mil), double glove	
Isopropanol	nitrile	
Laser Dyes	nitrile	
Lead Acetate	nitrile, double glove	
Lead Salts	nitrile	
Mercuric Chloride	nitrile, double glove	
Mercury	nitrile	
Mercury Salts	nitrile	
Methanol	nitrile	
Methylene Chloride	nitrile (8 mil), double glove	polyvinyl acetate, viton
Methyl Sulfonic Acid, Ethyl Ester (EMS) (Ethyl Methanesulfonate)	nitrile	nitrile, double glove
Monoethanolamine	nitrile	
Nickel Chloride	nitrile	
Nickel Salts	nitrile	
N-Methylethanolamine	nitrile (8 mil), double glove	viton, neoprene, butyl rubber
Organophosphorous compounds	nitrile (8 mil), double glove	
Osmium Salts	nitrile	
Osmium Tetroxide	nitrile, double glove	
Paraformaldehyde	nitrile	
Phenol	nitrile (8 mil), double glove	neoprene, butyl rubber
Phenol-Chloroform mixtures	nitrile (8 mil), double glove	viton
Phenylmethylsulfonyl Fluoride (PMSF)	nitrile	nitrile, double glove
Polychlorinated Biphenyls (PCB's)	nitrile (8 mil) glove over a neoprene glove	neoprene (20 mil)
Polyoxyethylenesorbitan Monolaurate (Tween 20)	nitrile	
Psoralen	nitrile	nitrile, double glove
Pump Oil	butyl rubber	
Silane based silanization or derivatization compounds	nitrile (8 mil), double glove	
Silver Nitrate	nitrile	
Silver Salts	nitrile	
Sodium Dodecyl Sulfate (SDS)	nitrile	
Sodium Azide	nitrile	
Sulfuric Acid	nitrile (8 mil)	neoprene, butyl rubber (20 mil or greater)

Tetrahydrofuran (THF)	nitrile (8 mil), double glove	Norfoil
3,3',5,5'-Tetramethyl-Benzidine (TMB)	nitrile	nitrile, double glove
N,N,N',N'-Tetramethyl-ethylenediamine (TEMED)	nitrile	nitrile, double glove
Toluene	nitrile (8 mil), double glove	viton, polyvinyl acetate (PVA)
Trichloromethyl Chloroformate (diphosgene)	nitrile (8 mil) over butyl rubber glove box gloves	Material must be used in a glove box.
Triton-X 100	nitrile (8 mil), double glove	
Uranium Salts	nitrile	
Xylene	nitrile	polyvinyl acetate (PVA), viton

¹ If you are allergic to natural rubber products, you may double glove with 8 mil nitrile gloves.

Created 10/22/99 Tom Shelley