

Chemical Resistant Gloves Guide

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The following table gives recommended materials for chemically-resistant gloves for work involving a variety of chemicals

Abbreviations used for glove material:

4H	4H (PE/EVAL)
B	Barricade
Br	Butyl rubber
CPF	CPF 3
Ne	Neoprene
Ni	Nitrile rubber
Nr	Natural rubber
Pe	Polyethylene
Pva	Polvinyl alcohol
Pvc	Polyvinyl chloride
Res	Responder
S	Saranex
T	Teflon
Ty	Tychem 10000
V	Viton

Entries in brackets in the table below indicate that the glove material is likely to provide adequate protection for a period of less than four hours.

4H, Teflon, Viton, Responder, Saranex and Barricade are trade marks.

Chemicals

A	
Acetaldehyde	Br T
Acetic acid	Br Ne T V S
Acetone	Br T 4H CPF Res
Acetonitrile	Br T B
Acetonylacetone	Nr Br
Acetophenone	T
Acrolein	Br B
Acrylamide	Br Ni Pvc V
Allylamine	Br
Ammonia (liquid)	Res CPF
Ammonium hydroxide	Br Ni T V
Aniline	Br Pva T V B
B	
Benzene	Pva T V B
Benzoyl chloride	Pva V
Benzyl alcohol	Br V
Benzylamine	T
Benzyl bromide	T
Boric acid	Br N Ni V
Bromine	T
Bromobenzene	Pva V
2-bromoethanol	Br V
Butyric acid	Br V
gamma-butyrolactone	4H
C	
Cadmium oxide	Ne Ni
Carbon disulfide	Pva T V B 4H Res Ty
Carbon tetrachloride	Pva T V B
Caustic soda	[See sodium hydroxide]
Chloral, anhydrous	V Br

Chloroacetic acid	Br Ne Pe V
4-chloroaniline	B
Chloroform	Pva T V B
1-chloropropane	T
Chromic acid	Pe Pvc Br
1,8-cineole	T V
Cobalt (III) acetylacetonate	Br Ni
m-cresol	Ne
p-cresol	4H
Crystal violet	Br V
D	
DCM (dye, not dichloromethane)	Br Ni
3,4-dichloroaniline	B
Dichlorobenzene	V
Dichlorodimethylsilane	4H V
1,2-dichloroethane	Ty [Pva] [V]
Dichloromethane	PVa
Diethyl ether ("ether")	Pva T
Di(2-ethylhexyl)phthalate	Br V 4H Ba
Dimethyl acetamide	Br
Dimethylformamide	Br T 4H Res
Dimethyl phosphite	Ne Ni Br
Dimethyl sulfide (methyl sulfide)	Res
Dimethyl sulfoxide (DMSO)	Br Ne T B
2,4-dinitrotoluene	S
1,3-dioxane	Br
E	
Ethidium bromide	Ni Br
Ethyl acetate	4H B Res
Ethyl bromide	(Pva, V)
Ethylenediamine	Br T S
Ethylene glycol dimethyl	Br

ether	
Ethylene oxide	Br T B
Ethyl methacrylate	Br Pva
F	
Ferrous sulfate	Ne Nr Ni
Fluoroacetamide	Ne
Formaldehyde	Br Ni T V B
Formamide	Br Nr
Formic acid	Br Ne Pvc T S B
Furfural	Br Pva S
G	
Glutaraldehyde	Br Ne Nr Ni V Pvc
H	
Heptane	Ni V 4H
Hexane	Ni PVA T V B
Hexachlorobenzene	Res Ty
Hexachloro-1,3-butadiene	Res Ty
Hexachloroethane	Res Ty
1-hexene	T V
Hydrazine	Br Ne Ni Pvc T V B
Hydrochloric acid	Br Nr Ne Ni Pvc T V B
Hydrofluoric acid	Br B T S
Hydrogen bromide	T
Hydrogen peroxide	Br Nr Ni Pe Pvc V
I	
Indole	4H Res Ty
Iodine	Pe S
Iodomethane	Br Ni
Iodomethane-d3	Br Ni
Isomyl alcohol (isopentyl alcohol)	Br Ne Ni V
Isobutanol (isobutyl alcohol)	Br Ne Ni V 4H Res
Isopentane	Ni
Isopropanol	Br Ni V 4H CPF3 Res

L	
Lubricating oil	Nr Ne Ni V
M	
Malathion	T
Mercuric chloride	B
Mercury	B
Methanesulphonic acid	Ne Pvc
Methanol	Br T V 4H
1-methoxy-2-propanol	Br Ne 4H
Methyl acrylate	Pva T B
Methylamine	Br Ne Ni T V
2-methylbutane	Ni
Methyl <i>tert</i> -butyl ether	Ni PVA 4H B Res
Methylene chloride (dichloromethane)	PVA T 4H B Res Ty
Methylethanolamine	V Br Ne
Methylethyl ketone (MEK)	Br T
Methyl ethyl ketone peroxide (MEKP)	V Ne Br
Methyl glycol (methyl cellosolve)	Br 4H
Methyl isocyanate	Pva B
Methyl mercaptan	B
N-methyl-2-pyrrolidone	Br 4H
Methyl trichlorosilane	V
Morpholine	Br
N	
Naphtha (solvents)	Ni Pva 4H B
Nickel cyanide	Br
Nickel (II) or (III) oxide	Nr Pvc
Nitric acid (concentrated)	Pvc
Nitric acid 30-70%	Br Ne Pe Pvc V S
Nitric acid 30%	Br Nr Ne Ni Pe Pvc T S
Nitric oxide	T

Nitrobenzene	Br Pva T V B
O	
Octafluoroadipic acid	Br Nr
Oxalic acid	Br Nr Ne Ni Pvc V
P	
2-pentanone	Br
Perchloric acid (ca. 75%)	Nr Ne Ni Pvc T
n-perfluoropentanoic acid	Br Ne Ni Nr
Phenol	Br Ne T V B
Phosgene	T
Phosphorus trichloride	T B
Picric acid	Ne Ni (use of gloves of either type of material should be restricted to short periods, ca. 1 hour)
Propionaldehyde	Br
Q	
Quinoline	Br
S	
Sodium cyanide (solid)	Nr Ne Ni Pvc
Sodium fluoride	Nr Ni Ne Pvc
Sodium hydroxide	Br Nr Ne Ni Pe PVC T V Sar Bar 4H Res
Sodium hypochlorite	Br Nr Ni Ne Pe V Res
Sodium silicate	Br Nr
Solvent naphtha	Ni Pva 4H B
Sulfuryl chloride	Br Ni
Sulphuric acid	Br Nr Ne Pe Pvc T V B
T	
1,1,2,2-tetrachloroethane	Pva T V B Ty
Tetrahydrofuran (THF)	T B
Toluene	Pva T V
Trichloroacetic acid	Ni
Trichloroacetyl chloride	Nr Br

1,1,1-trichloroethane	Pva T V B
1,1,2-trichloroethane	Pva T V
Trichloroethylene	Pva T V 4H B Res Ty
Triethanolamine	Br Nr Ne Ni
Triethylamine	Ni V
Trimethylamine	T
V	
Vinyl acetate	T B
4-vinylcyclohexene	Ni V
W	
Water glass	Br Nr
X	
Xylene	Pva T V 4H B

Glove types and their uses

Glove Selection For Specific Chemicals