CHEMICAL RESISTANCE GUIDE

The following chemical resistance ratings are based on published research data. Microflex[®] gloves have not been individually tested against the chemicals contained in this chart.

Chemicals	ラテックス:		ネオプロ	Chemicals	ラテックス		ネオプロ
Acetaldehyde	•	•	0	Cupric Sulfate (Copper Sulfate)			
Acetamide	•			Cyanic Compounds	-	•	
Acetic Acid (50%)			NBT	Cyclohexane	•		
Acetone	•			Cyclohexanol	•		
Acetonitrile		•		Cyclohexanone	•		
Acetophenone	•	•		Decahydronaphthalene (Decalin)	•	٠	
Acetyl Chloride	•	•		Denatured Alcohol	•		
Acrylamide (same as 2-Propenamide)	-	-		Dental Etching Material	۲		
Acrylic Acid		•		Dental Resin Cement	•	-	
Aircraft Stripper	•			Dental Waxes	•		
Aluminum Nitrate (Nonhydrous) (10%)			NBT	Denture Polishing Material	•		
Ammonia (Anhydrous)	•			Detergent Solutions	۲		
Ammonium Benzoate (same as Benzoic Acid)	•	•		Developing Fluids	•		
Ammonium Hydroxide (30%)	•		15min	Diamond Polishing Paste	۲		
Ammonium Hydroxide (Concentrated)	•	•		Dibutyl Phthalate	•		
Ammonium Oxalate	-			o-Dichlorobenzene	•		
Ammonium Sulfate (Aqueous)				p-Dichlorobenzene	•		
Amyl Acetate	•	•		Dichloromethane	٠		
Aniline	•	•		Diesel Fuel	•		
Antifreeze (Methanol-Based)	•			Diesel Fuel (1%)			10min
Benzaldehyde	•	•		Diesel Fuel Additive	•		
Benzene	•	•	0	Diethylamine	•	•	
Benzoic Acid	•	•		Diethylene Glycol	•		
Boric Acid				Diisobutyl Ketone (DIBK)	•		
Brake Cleaner (containing Hexane or Ethanol)	•			N, N-Dimethyl Acetamide (same as Dimethyl			
Brake Cleaner, Non-Chlorinated (containing				Acetamide (DMAC), same as Acetic Acid)			
Acetone, N-Heptane and/or Xylene)				Dimethylformamide	•		1min
Brake Fluid	•			Dimethyl Sulfoxide (DMSO)	•		30min
Bromine (Anhydrous Liquid)	•			Dioctyl Phthalate (DOP)	•	•	
Bromoethane (Methyl Bromide)	•	•		Dioxane	•		
Butyl Acetate	•		0	EDTA (17%)	•	•	
n-Butyl Alcohol (Propyl Carbinol)	•	•		Engine Cleaner & Degreaser (containing			
n-Butyl Chloride	•			Kersosene, Petroleum Distillates or Propane-	•		
1, 3-Butylene Glycol (1,3-Butanediol)	-	•		Isobutane-n-Butane as main components)			
Calcium Chloride (Aqueous)				Epoxy Primer (containing Toluene, Acetone, MEK	•		
Calcium Hydroxide (Dental)	•	•		and/or n-Butyl Acetate)	-		
Carbamide Peroxide (Urea+Hydrogen Peroxide	•	•		Ethanol (Ethyl Alcohol) (95%)			52min
at 1:1 ratio)				Ethanolamine (99%)			NBT
Carbon Dioxide	•	•		Ethanolamine			
Carbon Disulfide	•			Ether	•	•	2min
Carbon Tetrachloride	•	•		Ethidium Bromide (1%)			NBT
Carburetor Cleaner (typically Xylene, Toluene	•	•		Ethidium Bromide (0.5%)	-	-	
and/or Acetone)				2-ethoxyethanol (Ethoxyethanol)			
Castor Oil	•	•		Ethyl Acetate	•	•	2 min
Chlorine (wet)	•			Ethyl Ether	•		
Chlorobenzene	•	•		Ethylene Dichloride	•	•	
Chlorotorm			0	Ethylene Glycol			
o-Chioronaphthalene	•	•		Ethylene Oxide	•	•	
Chromic Acid (50%)				Ferric Chloride (Aqueous)			
Citric Acid (10%)	•	•		Formaldehyde (37%)			NBT
Clanidina Hydrochloride (U.1%)	-	_	NOT				
			NBI	Formaldenyde)	•	•	NOT
Copper(II) Etnylenediamine (1 molar)			NBI		-		NBI
Cresois	-	•		FORMIC ACIA (90%)	-		

● EXCELLENT ● GOOD ● FAIR ● NOT RECOMMENDED

31-60 minutes = VERY GOOD 21-30 minutes = GOOD 11-20 minutes = FAIR 3-10 minutes = POOR

Less than 3 minutes = **NOT RECOMMENDED**

 $\textbf{NBT}=\text{No}\ \text{Breakthrough}\ \text{Time}\ \text{up}\ \text{to}\ 120\ \text{minutes}$

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Freon 11	•			Methyl Bromide	•		
Freon 12	•			Methyl Butyl Ketone	•	•	
Freon 21	•			Methylene Chloride	•	•	
Freon 22	• •			Methyl Chloride	•	٠	
Fuel Injector Cleaner (primarily Kerosene)	•			Methyl Ethyl Ketone (MEK)	•		0
Furfural	• •			Methyl Isobutyl Ketone (MIBK)	•	•	
Gasoline, Leaded	•			Methyl Methacrylate	•	•	
Gasoline, Unleaded	•			Methyl Methacrylate (33%)			0
Glass Ionomer Dental Cements	•			Mineral Spirits	•		
Glucose	•			Monoethanolamine			
Glutaraldehyde (50%)		_	NBT	Morpholine	•		
Glycerin	•			Motor Oil (includes Oils made from Petroleum			
Glycerol	•			Distillates, Synthetic Oils, Diesel Oils, 2-Stroke	•		
Grease, Automotive (Petroleum-Based)	•			Oils, and Hydraulic Oils)			
Grease, Automotive (Silicon-Based)	•			Naphtha			
Grease, Automotive (Synthetic)	•			Naphthalene	•	•	
Guanidine Hydrochloride			NBT	Nitric Acid (50%)			NBT
Heptane (n-Heptane)	•			Nitromethane (95.5%)	•	•	
Hexane	•			Nitropropane (95.5%)			
Hydraulic Fluid (Petroleum-Based)	•			Nitrophenols	-	-	
Hydrochloric Acid (18%)			NBT	Octyl Alcohol (Octanol)			
Hydrochloric Acid (20%)	•			Oleic Acid	•	•	
Hydrochloric Acid (50%)	•			Oxalic Acid			
Hydrochloric Acid (Concentrated)	•			Paint (Latex-Based)	•	•	
Hydrofluoric Acid (48%)	•			Paint (Oil-Based)			
Hydrofluoric Acid (Concentrated)	• •			Paint, Automotive (paint containing V.M.&P.			
Hydrogen Peroxide (3%)	•			Naphtha, Mineral Spirits; with small amounts of	•	•	
Hydrogen Peroxide (30%)				Point Automative (points containing large			
Hydrogen Peroxide (Concentrated)	•			amounts of Toluene, Yvlene or n. Butyl Acetate)	•	•	
Hydroquinone	•			Deint Activator Automative (containing MEK			
Hydroxylamine Hydrochloride		_		Polyisocyanate Resin, and/or Butyl Acetate)	•	•	
Imidazole		_		Paint Reducers/Thinners, Automotive (Alinhatic			
Isobutanol (Isobutyl Alcohol)	•			Hydrocarbons eg VM &P Naphtha or Mineral	•		
Isooctane	•			Spirits)	•		
Isopropanol (Isobutyl Alcohol)	•			Paint Reducers/Thinners, Automotive (Aromatic		-	
Kerosene	•			Hydrocarbons, eg. Toluene or Xylene)	•	•	
Ketones	•			Paint Thinner (Duco)	•		
Lacquers	•			Palmitic Acid			
Lacquer Thinners	•			Paraformaldehyde	•		
Lactic Acid (85%)	•			Parts Wash, Automotive (containing Naphtha,			
Laurel Alcohol (Lauryl Alcohol)	•			n-Hexane, Cyclohexane and/or MEK)+A64	•	•	
Lauric Acid (36%)	•			Pentane	•		
Lead Acetate	•			Pentyl Ether (same as Pentane)	•		
Linoleic Acid	•			Perchloric Acid (50%)			NBT
Linseed Oil	•			Perchloric Acid (60%)	•		
Lubricants (containing Mineral Spirits as primary	•			Perchloroethylene	•		
component)	-	-		Periodic Acid (50%)	_	_	
				Petroleum Distillates (Naphthas)	•		
2-IVIercaptoethanol		_		Phenol (0.1%)			
				Phenol (10%)			NBT
Nercury				Phenol (approx. 100%)	•	•	
			0	Phenolphthalein (Aromatic Phenols)	•		
Wethowethonol (Methonol)			U	Phenylmethylsulfonyl Fluoride (5%)	-	-	0
z-wethoxyethanol (Ethylene Glycol Monomethyl)				Phosphoric Acid (0 to 50%)			
Wethyl Amine				Phosphoric Acid (50-85%)			

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Chemicals	ラテックス ニトリル	ネオプロ	Chemicals	ラテックス	ニトリル	ネオプロ
Phosphoric Acid (100%)	• •		Sodium Selenate (10%)	_	_	NBT
Polysorbates			Sodium Thiosulfate (Developing Fluids)		٠	
Potassium Bromate	• •		Staining Rating (All Stains)		•	
Potassium Chloride	• •		Styrene	•	•	
Potassium Cyanide	• •		Sulfuric Acid (50% Concentration)			NBT
Potassium Dichromate (Aqueous)	•		Sulfuric Acid (93-98%)	•	•	
Potassium Hydroxide	• •		Tannic Acid (65%)			
Potassium Iodide			Tetrachloroethylene	٠	•	
Potassium Permanganate	• •		Tetrahydrofuran	•	•	0
Potassium Sulfate (Potassium Sulphate)	• •		Tetramethylurea	_	_	
Propyl Acetate	• •		Toluene	•	•	0
Propyl Alcohol	• •		Toluene Diisocyanate	•	•	
Propylene (1-Propene, Methyl Ethylene)	• •		Transmission Fluid, Type A	•	•	
Propylene Glycol	• •		Transmission Fluid, Synthetic	•		
Pyridine	• •		Trichloroethylene	•	•	
Rust Inhibitors, Automotive	• •		Triethanolamine	٠		
Rust Remover, Automotive (containing <50%			Trifluoroacetic Acid			0
Phosphoric Acid)			Triton X-100, Igepal CA, Polytergent G			
Silver Nitrate (10%)		NBT	(Octoxynol with varying Ethylene Oxide units)			
Silver Nitrate (0.17N)	• •		Tung Oil	•		
Sodium Acetate (Aqueous)	• •		Turpentine	•		
Sodium Azide (Sodium Salt)	• •		Undercoater, Rubberized (Automotive)	•		
Sodium Bicarbonate (Aqueous)(Baking Soda)	• •		Urea	•		
Sodium Chloride (Aqueous)	• •		Varnish	•		
Sodium Cyanide (Aqueous)	• •		Vinyl Chloride	•		
Sodium Dodecyl Sulfate (0.10%)		NBT	Water			
Sodium Hydroxide (50%)	• •		Wax Remover, Automotive (containing V.M.&P.			
Sodium Hydroxide (40%)		NBT	Naphtha, Xylene and/or Ethylbenzene)	-	-	
Sodium Hypochlorite (Bleach)	• •		Xylene (Xylol)	•	•	0

● EXCELLENT ● GOOD ● FAIR ● NOT RECOMMENDED

Greater than 60 minutes = **EXCELLENT** 31-60 minutes = VERY GOOD21-30 minutes = GOOD 11-20 minutes = FAIR 3-10 minutes = **POOR** Less than 3 minutes = **NOT RECOMMENDED**

Normalized Breakthrough Time: Identified in minutes $\ensuremath{\mathsf{NBT}}$ = No Breakthrough Time up to 120 minutes

Caution: Components used in making these gloves may cause allergic reactions in some users. Follow your institution' s policies for use.