

INFORMS

8th March 2012

Recommendation on chemical resistance

Protective gloves **Semperguard®** for single use have been tested in accordance with EN 374-3 "Determination of resistance to permeation by chemicals"

Chemical (synonyms)	Semperguard® Latex powdered	Semperguard® Latex powder-free	Semperguard® Nitril Xpert	Semperguard® Nitril Comfort	Semperguard® Nitril Xtra Lite
Acetic acid (10%) (methyl carbon acid)	Level 6	Level 6	Level 6	Level 6	Level 6
Acetone (2- propanone, methyl ketone)	x	x	x	x	x
Acetonitrile (cyanomethane, ethyl nitrile)	x	x	x	x	x
Acryl amide (40%) (acrylic acid amide)	Level 6	Level 6	Level 6	Level 6	Level 6
Ammoniumhydroxid (25 %)	A	A	A	A	
Benzalconiumchloride liquid (Quats)		Level 6			
Chlorhexidingluconat + ethanol + water				Level 1	
Chloroform (trichloromethane, methyl trichloride)	x	x	x	x	x
Cyclohexanol (Hexalin / at 23°C)		Level 1	Level 4	Level 3	
Dichloromethane (methylene chloride, Freon 30)	x	x	x	x	x
Diethyl amine (DEA)	x	x	x	x	x
Diethyl ether (diethyloxid, ethoxyethane, anesthetic ether)	x	x	x	x	x
Dimethylsulfoxide DMSO (deltan, demasorb)	x	x	x	x	x
Ethanol (20%) (ethyl alcohol)	A	A	Level 6	Level 1	Level 1
Ethanol (40%) (ethyl alcohol)	x	x	Level 1	A	A
Ethanol (70%) (ethyl alcohol)	x	x	A	A	A

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Ethanol (80%) (ethyl alcohol)	x	x	A	A	A
Ethanol p.a. (ethyl alcohol)	x	x	A	A	x
Ethidium bromide (1%) (homidium bromide)	x	x	Level 6	Level 6	Level 6
Ethyl acetate (Aceto acid ether)	x	x	A	A	x
Formaldehyde (37%)(formalin, methyl aldehyde)	A	Level 1	Level 6	Level 3	Level 2
Gasoline (heavy, bp 150 – 190°C – CAS 8232-32-4)	x	A	A	A	x
Glutaraldehyde (5%) (1,3- diformylpropane; Glutaral)		Level 6	Level 6	Level 6	Level 6
Heptane – n (CAS 142-82-5)	x	x	Level 1	A	x
Hexane – n (CAS 110-54-3)	x	x	A	A	A
Hydrochloric acid (36%) (muriatic acid, chlorohydric acid)		Level 2	Level 3	Level 2	Level 1
Hydrofluoric acid (40%)			Level 1	A	
Isopropyl alcohol (40%) (2- propanol, isopropanol, IPA)	A	A		Level 2	Level 1
Isopropyl alcohol (70%) (2- propanol, isopropanol, IPA)	A	A		Level 2	Level 1
Isopropyl alcohol p.a. (2- propanol, isopropanol, IPA)	x	A		Level 2	A
Linseed oil	A	A	A	A	A
Methanol (5%) (methyl alcohol)				Level 6	
Methanol p.a. (methyl alcohol)	x	x	A	A	x
Nitric acid (10%) (Aqua fortis, spirit of nitre)	Level 6	Level 6	Level 6	Level 6	Level 6
Nitric acid (36%) (Aqua fortis, spirit of nitre)		Level 6			Level 6
Nitric acid (50%) (Aqua fortis, spirit of nitre)			Level 4	Level 2	
Phenol (10%) (carbolic acid, benzenol, hydroxybenzene)	A	A	Level 2		

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Phenol (80%) (carbolic acid, benzenol, hydroxybenzene)			Level 2		
Phosphoric acid (10%) (orthophosphoric acid)			Level 6	Level 6	
Potassium hydroxide (30%) (caustic potash, lye)		Level 1	Level 6	Level 6	Level 6
Sodium hydroxide (30%)(caustic soda, lye, white caustic)	Level 6	Level 6	Level 6	Level 6	Level 6
Sodium hydroxide (40%)(caustic soda, lye, white caustic)	Level 6	Level 6	Level 6	Level 6	Level 6
Sulphuric acid (96%) (vitriol)		Level 1	Level 1	A	
Toluene (methylbenzol, phenylmethan, toluol)	X	X	X	X	X
Trichlorethane (methyltrichloromethane, chlorotene)	X	X	X	X	X
Xylene (xylol, dimethylbenzene)	X	X	X	X	X

X not recommended
A for splash contact recommended – change glove immediately after contact
Level 1 for short contact recommended
Level 2 for contact up to 60 min recommended
Level 3 for contact up to 120 min recommended
Level 4 for contact up to 240 min recommended
Level 5 for contact up to 480 min recommended
Level 6 for contact longer than 480 min recommended

Disclaimer: Sempermed wants to state that the values for the permeation levels for all Semperguard gloves are based on tests performed in laboratory under fixed conditions and cannot reflect all actual "in use"- circumstances. As a rule, tests and certificates can only be regarded as general information and will not discharge the user from his duty to make sure before the use that the glove will correspond to his actual protection needs. When working with materials harmful to the skin before starting to work please always check the glove for any defects. Recommendation on chemical resistance is not part of the specification.

If there's any doubt ask at your supplier or Semperit directly. www.semperit.at or www.sempermed.com