



# Chemical Resistance

Chemikalien	igumid G igumid GLW igumid NB
Acetaldehyde (aqueous), 40 %	o
Acetamide (aqueous), 50 %	+ <sup>1</sup>
Acetic acid, 2 %	-
Acetic acid, 10 %	-
Acetic acid, 90 %	-
Acetone	+
Acetyl chloride	-
Acrylonitrile	+
Air, liquid	o
Allyl alcohol	o
Aluminum chloride (aq.), 10 %	o
Aluminum cleaner	-
Aluminium salt from mineral acid, 20 %	o
Aluminum sulphate (aq.), 10 %	o
Ammonium carbonate (aqueous), 10 %	+ <sup>1</sup>
Ammonium chloride (aq.), 10 %	+ <sup>1</sup>
Amyl acetate, 100 %	-
Amyl alcohol	+
Aniline (aqueous), sat'd solution	o
Anisole	+
Anodised liquor (HNO <sub>3</sub> -30 %/H <sub>2</sub> SO <sub>4</sub> -10 %)	o
Aqua regia HCl/HNO <sub>3</sub> (75/50 vol.)	+
Aromatics	+
Barium chloride (aqueous), 10 %	o
Barium salt from mineral acid	o
Barium sulphate (aqueous), 10 %	o
Benzaldehyde	o
Benzoic acid (aqueous), 20 %	o
Benzyl alcohol	+
Biphenyl	+
Bitumen, DIN 51567	o
Bleaching solution	-
Bleaching solution (aqueous), 10 %	-
Blue vitriol, saturated solution	o
Blue vitriol, 0.5 %	o
Boric acid (aqueous), 10 %	o
Boring oils	+
Brandy vinegar	o
Bromine (aqueous), 25 %	-
Bromine vapours	-
Butanol	+
Butter	+
Butylacetate	+
Butylglycol	+
Butylglycolat	+
Butyl phthalate	+
Butyric acid	o
Calcium chloride, sat'd solution	+ <sup>1</sup>
Calcium hydroxide (aqueous)	+

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Calcium hypochlorite	+
Camphor	+
Carbon dioxide gas	+
Carbonated ammonia (aqueous), 10 %	+
Carbon disulphide	+
Casein	+
Catechol (aqueous), 6 %	-
Caustic natron (aqueous), 50 %	o
Caustic potash, 10 %	+ <sup>1</sup>
Caustic potash, 20 %	o
Caustic potash (aqueous), 40 %	+
Caustic potash, 50 %	o
Caustic soda (aqueous), 10 %	-
Caustic soda (aqueous), 50 %	o
Cellulose paint	+
Chlor, chlorine water	-
Chloramine	-
Chlor bromine methane, 98 %	o
Chlorethanal	-
Chloric gas	-
Chlorine hydrogen gas	-
Chlorine sulfone acid (aqueous)	-
Chlorine water, sat'd solution	-
Chloroacetic acid (aq.), 10 %	-
Chloroform	-
Chromic acid (aqueous), 1 %	-
Chromic acid (aqueous), 10 %	-
Citric acid, concentrate dilution	o
Citric acid (aqueous), 10 %	+ <sup>1</sup>
Citrus fruits	+
Cobalt salt (aqueous)	+
Cooking fats, 100 %	+
Cooking oils	+
Cresol	-
Cyclohexane	+
Decahydronaphthaline	+
Dibutyl ether	+
Dibutyl phthalate	+
Dichlor benzene	+
Dichlor ethene	+
Dichlor ethylene	-
Diethylether	o
Dimethylformamide	+
Diocetyl phthalate	+
Dioxane	+
Dioxygen gas, +23 °C, depressurized	+
Ethanal (aqueous), 40 %	o
Ethanol (aqueous), 96 %	o
Ethyl acetate	+

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Ethylene	+
Ethylene chloride	+
Ethylene diamine (1.2-Ethane diamine)	+
Ethylene glycole (aqueous), 95 %	0
Ethylene oxide (1.2-Epoxy ethane)	0
Fat, cooking fat	+
Ferric chlorid, saturated solution	0
Ferric chlorid, 2.5 %	0
Ferric chlorid, 5 %	0
Ferric-III-chloride (aqueous), neutral, 10 %	+ <sup>1</sup>
Ferric-III-chloride (aqueous), sour, 10 %	-
Fluorine	-
Fluorinated hydrocarbons	+
Formaldehyde (aqueous), 30 %	0
Formamide	0
Formic acid (aqueous), 2 %	-
Formic acid, 10 %	-
Formic acid, 90 %	-
Fruit juices	+
Furfural	0
Glycerine	+
Glycol	0
Heptane	+
Hexa chlorine ethane	+
Hexachlorobenzene	-
Hexamethylphosphoracidtramid	-
Hexane	+
Humic acid	0
Hydrobromic acid (aqueous), 10 %	-
Hydrochloric acid, L20	-
Hydrochloric acid, 2 %	-
Hydrochloric acid, 10 %	-
Hydrofluoric acid (aqueous), 4 %	-
Hydrogen peroxide, 0.5 %	+
Hydrogen peroxide, 30 %	-
Hydrogen sulphide (aqueous)	+
Hydrogen sulphide (dry)	0
Hydroquinone (aqueous), 5 %	-
Indian ink	+ <sup>1</sup>
Ink, dye, Color	+ <sup>1</sup>
Iodine tincture, 3 %	-
Isooctane, 80 %	+
Isopropanol	+
Isopropyl ether	+
Ketone (aliphatic)	0
Lead acetate (diluted), 10 %	0
Lead stearat	+
Linseed oil	+
Lithium bromide/chloride/salts (aqueous), 50 %	0
Lithium chloride in alcohol, 20 %	-

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Lubricating oil, mineral	+
Lubricating oil, synthetic	0
Magnesium chloride (aq.), 10 %	+ <sup>1</sup>
Magnesium hydroxyde (aqueous)	+ <sup>1</sup>
Maleic acid, concentrate solution	-
Maleic acid (aqueous), 10 %	0
Malt	+
Manganese sulphat (aq.), 10 %	0
Mercurous chloride, 6 %	-
Mercury	+
Methane	+
Methanol	+
Methanol, +20 % CaCl <sub>2</sub> or LiCl	-
Methyl acetate	+
Methylamine	+
Methylene chloride	-
Methyl ethyl ketone	+
Milk	+ <sup>1</sup>
Milk acid (lactic acid), 10 %	+
Milk acid (lactic acid), 90 %	0
Molasses	+
Molykote lubricating grease	+
Mortar, cement, chalk	+
Naphthalene	+
Naphthalene sulfone acid	-
Natrium oleate	+
Natrium sulphate, 10 %	+ <sup>1</sup>
Natrium sulphite, neutral, 2 %	+ <sup>1</sup>
Natrium thiosulphate, 10 %	+ <sup>1</sup>
Nickelsalt (aqueous), 10 %	0
Nitric acid (aqueous), L50	-
Nitric acid (aqueous), 2 %	-
Nitric acid (aqueous), 5 %	-
Nitrio acetic acid	+
Nitrobenzene	-
Nitrogases	0
Nitromethane	0
Nitro paints, danger class A I	0
Nitro paints, danger class A II	+
Nitrotoluene	0
Nitrous gases (dry)	0
Noble gases (argon, helium, neon)	+
Octane	+
Oleic acid	+
Oleum	-
Oxalic acid (aqueous), 10 %	0
Ozon	-
Palmitic acid	+
Paraffin	+



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Paraffin oil	+
Pebble hydrofluoric acid (aqueous), 30 %	-
Perchloroethene	-
Perchloric acid, 10 %	-
Perfume	+
Phenol (alcoholic), 70 %	-
Phenol (aqueous), 6 %	-
Phenol (aqueous), 70 %	-
Phenol (aqueous), 88 %	o
Phosphoric acid (aqueous), 0.3 %	o
Phosphoric acid (aqueous), 3 %	-
Phosphoric acid (aqueous), 10 %	o
Phthalic acid, saturated solution	+
Polyester resin (with styrene)	+
Potassium bromide (aq.), 10 %	o
Potassium carbonate (aq.), 60 %	+ <sup>1</sup>
Potassium chloride (aq.), 10 %	+ <sup>1</sup>
Potassium chloride (aq.), 90 %	+ <sup>1</sup>
Potassium dichromate (aq.), 5 %	o
Potassium nitrate (aq.), 10 %	+ <sup>1</sup>
Potassium permanganate (aqueous), 1 %	-
Potassium sulphat, sat'd solution	+ <sup>1</sup>
Propane, Propene	+
Propenoic acid	-
Propanol	+
Propensäure	-
Pyridine	+
Pyruvic acid (aqueous), 10 %	o
Resorcin (1.3-Dihydroxybenzol), 50 %	-
Salicyl acid	+
Seawater	+
Sebum	+
Silicone oil	+
Silver nitrate	+ <sup>1</sup>
Soap solutions	+ <sup>1</sup>
Soda solution, 10 %	+ <sup>1</sup>
Sodium acetate (aqueous), 10 %	-
Sodium bisuphite (aqueous), 10 %	+ <sup>1</sup>
Sodium bromide (aqueous), 10 %	+ <sup>1</sup>
Sodium carbonate, 5 %	+ <sup>1</sup>
Sodium carbonate (aqueous), 21.5 %	+ <sup>1</sup>
Sodium carbonate (aqueous), 50 %	+ <sup>1</sup>
Sodium chlorate (aqueous), 10 %	o
Sodium chloride, sat'd solution	+ <sup>1</sup>
Sodium dichromate (aqueous), 10 %	o
Sodium dodecylbenzolsulfonat	+
Sodium hypochlorite (aqueous), 10 %	-
Sodium hypophosphite (aqueous), 10 %	+
Sodium nitrate (aqueous), 10 %	+ <sup>1</sup>

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Sodium nitrilotriacetate (aqueous), 10 %	+
Sodium salts, 10 %	+
Soldering fluid	-
Spirit, white	+
Steam	-
Styrene	+
Sulphur	+
Sulphur acid, 2 %	-
Sulphur acid, 10 %	-
Sulphuric acid (concentrate), 98 %	-
Tar	+
Tetrahydrofurane (solvent)	+
Tetraline	+
Thionyl chloride	o
Toluene	+
Transformer oil	+
Trichloroacetic acid (aq.), 50 %	-
Trichloroethanoic	o
Trichloroethylene	-
Triethanolamine, 90 %	+ <sup>1</sup>
Trisodiumphosphate, 90 %	+
Uranium fluoride	-
Urea	+
Uric acid (aqueous), 10 %	+
Urine	+
Vaseline	o
Violet oil	+
"Washing machine cleaner" (phosphoric and nitric acid)	o
Water glasses (Sodium silicate)	+ <sup>1</sup>
Wax, molten	+
Wine acid	o
Xylene	o
Zinc chloride (aqueous), 10 %	-
Zinc oxide	+
Zinc sulphate (aqueous), 10 %	+ <sup>1</sup>

<sup>1</sup> The materials are not chemically attacked by these substances.

The data was determined using laboratory specimens or based on comparisons with similar chemicals. Therefore, this data can only act as a reference. The chemical resistance of actual parts should be tested under application conditions.

All data given concerns the chemical resistance at room temperature. Other temperatures may lead to different classifications of the chemical resistance. The data is based on our current knowledge. Future discoveries may lead to changes in the classification of the chemical resistance.