

STÜBBE GmbH & Co. KG

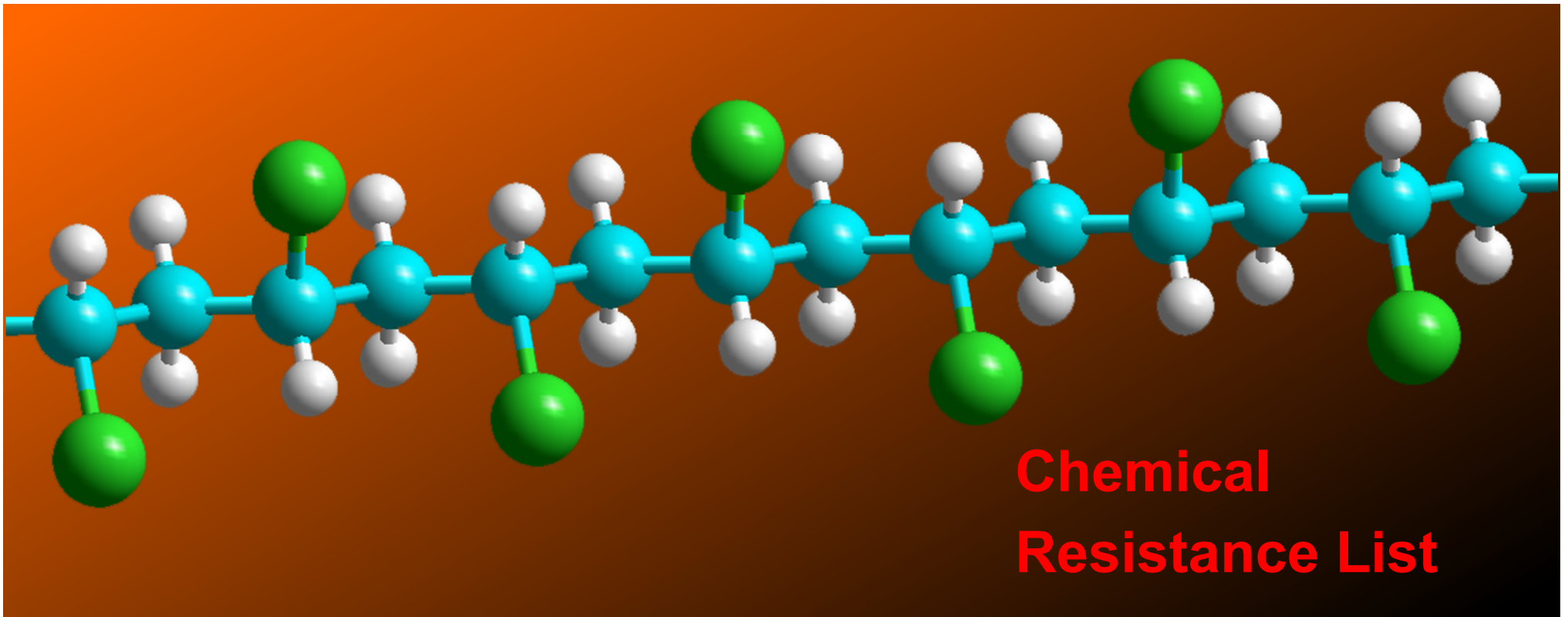
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# STÜBBE



*This document is only intended as an orientation aid for material selection and is not binding. No guarantee can be given that the resistance indicated here generally applies to each individual application. Moreover, this document does not give an assurance of particular material properties.*

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### General Information on the Chemical Resistance of Materials

Plastics are ideal materials for the construction of pipework and are often superior to metals with regard to their material properties and costs. However, it is important to select the materials carefully in order to avoid material failure that can lead to costs and present a safety risk, in particular, in the case of aggressive media. As pressure/temperature curves are generally determined for the medium water, additional consideration should be given to the chemical resistance at the operating temperature of the application. This resistance list listing the chemical resistance of the thermoplastics, elastomers and bearing materials contained in our product range to a large number of media, is intended as a decision-making aid for selecting the materials. The degree of chemical resistance is classified in our list as follows:

#### **+ = „resistant“:**

The material is generally assessed as suitable.

#### **0 = „conditionally resistant“:**

The material is subject to attack by the medium. However, the material may be used under certain limited conditions. It is advisable to carry out more extensive tests.

#### **- = „non-resistant“:**

The material is generally assessed as unsuitable.

#### **not specified:**

The material has not been tested with the medium at the specified temperature.

*The resistance of materials to mixtures of chemicals may differ from their resistance to the pure media. Discolorations which are caused by some media, but have no effect on the physical properties of the materials, are not included in this list.*

The question regarding the chemical resistance of a material with the specification “resistant”, “conditionally resistant” or “non-resistant” seems simple at first glance. However, answering this question involves the consideration of complicated interrelations that have not yet been completely clarified to date. That does not mean that plastics engineers do not have access to a large number of reliable values with regard to the resistance of plastics and cannot make good predictions on the resistance. However, it does mean that there is always a certain element of uncertainty.

This resistance guide is based on our own laboratory trials and our practical experience over the years.

***However, the resistance specifications cannot be applied to all possible operating conditions without taking further factors into consideration.***

For example, a general resistance list can hardly take the phenomenon of stress crack corrosion for each application into consideration. Furthermore, the type and amount of additives such as plasticizers, fillers and stabilizers have a considerable influence on the resistance of materials. This applies particularly to elastomers, whose properties are determined not only by the base material but also by the other recipe ingredients and the curing parameters. In the case of thermoplastic materials such as PVC, the type and proportion of the impact resistance modifier can lead to different degrees of resistance. This occurs especially in cases of highly concentrated contact fluids and can often only be detected with regard to long-term behaviour.

In addition to the chemical resistance of the materials used, the constructional details also influence the suitability of the finished product. PTFE, for example, is resistant to virtually all media, even at higher temperatures. Nevertheless, some media, particularly at higher pressures, are able to diffuse through PTFE layers (Permeation, see below). This must be taken into consideration for PTFE coated elastomer diaphragms.

***Therefore, the resistance list cannot replace conducting your own practical tests.***

Controlled individual tests must be performed on safety components subject to high stress, in particular, to reliably prove their suitability. Creep tests conducted for at least thousand hours or comparison of short-term tensile strength before and after the preselected chemical contact at the respective necessary temperature are suitable methods for determining suitability.

### Permeation

In the case of thin-walled components made of plastics or elastomers, the permeability of media through materials should also be included in the product selection. The service life of wearing parts such as diaphragms can be reduced by permeation. The extent of permeation depends on the material, the passing substances and their concentrations, the operating pressure, the operating temperature and also the dynamic-mechanical stress.

Media, from which permeation problems might occur depending on the exact operating parameters, are marked with the abbreviation "P". Examples are hydrofluoric acid, nitric acid and hydrochloric acid.

For some products with relatively thin PTFE-coated elastomer diaphragms (i.e. diaphragm pressure gauge guard MDM 902), we offer product variants with

an additional permeation-protection foil (PFA or ECTFE). These additional options are recommended for permeation-active, aggressive substances in higher concentrations or at higher temperatures. In case of doubt, we ask for consultation with stating the exact operating conditions.

### Structure and Usage of this List

This is followed on the next pages:

- properties of selected materials
- list of media
- list of chemical resistances

Since different, synonymous names are common for many media, the STÜBBE resistance list is sorted by four-digit media numbers, which can be found in the list of media. Mixed acids are precisely defined in our resistance list by the mass content (percentage) of acids related to the hole mixture. Within a name the acid components are sorted by decreasing mass content.

Concentration figures in % are mass contents (g substance contained in 100 g solution), unless stated otherwise.

### Notes on Harzadous Substances

The majority of media listed here are harzadous substances. Safety-relevant information can be taken from safety data sheets for the substances. Of course,

the specific hazards and associated risks of individual media also depend on the concentration and the operating temperature.

Especially with hazardous substances, it is very important to check not only the chemical resistance but also the optimal technical suitability of a product for the respective application.

For example, most STÜBBE products are designed exclusively for the conveyance of liquids and, with a few exceptions, are not suitable for gases. For flammable and at the same time often non-conducting flow media it has to be considered, that plastics are non-conductors and are generally only of limited suitability in potentially explosive atmospheres.

An assessment of materials as resistant does not exempt plant operators from the obligation to comply with national or regional safety regulations and the resulting protective measures and to take these into account when selecting products.

### Legal Notes

This resistance list is an excerpt from a STÜBBE database, which is subject to continuous data maintenance. It is compiled to the best of our knowledge and based on our experience and our current knowledge. Publication of this list or excerpts there of are not permitted without the prior express permission of STÜBBE. In the event of a violation of this copyright we reserve the right to take legal action.

*This table only gives a simplified general overview. The product specific application limits stated in our data sheets must be kept in.*

Material	Properties	Temperature	
		min.	max.
polyvinyl chloride PVC-U, rigid PVC (non-plasticized)	Hard, rigid thermoplastic. Thermally less stressable. The material itself is notch impact sensitive, types with enhanced impact strength show good mechanical properties. Generally good resistance against aqueous media (salts, acids, lyes) and aliphatic hydrocarbons. Non-resistant to aromatic hydrocarbons, chlorinated hydrocarbons, ketones, ester and ether. Good weathering resistance when stabilized.	0°C	+60°C
polyethylene, high density PE-HD, PE 80/100, PE 1000 high molecular low pressure polyethylene	Tenacious, flexible to rigid depending on the crystallinity. Excellent electrical properties. Generally good resistance against aqueous media (salts, acids, lyes), many polar organic substances (alcohols, ketones, ester, organic acids) various oils and greases. Non-resistant to concentrated oxidizing acids, aromatic hydrocarbons, chlorinated hydrocarbons. Good weathering resistance when stabilized.	-20°C	+80°C
polypropylene PP-H (homopolymer)	Higher hardness and rigidity in comparison to PE, but poor tenacity in the cold. Therefore, the material below +5°C becomes brittle. Higher service temperature than PE. Very good electrical properties. Apart from that similar resistance as PE-HD, but higher tendency to stress-cracking corrosion by oxidizing media and lower UV resistance.	+5°C	+100°C
polypropylene PP-GF30 (homopolymer, reinforced with 30% glass fibres)	The glass fibre reinforcement leads to a higher rigidity but unfortunately also to a reduced chemical resistance against certain media (i.e. hydrofluoric acid, hydrochloric acid, lyes). Other characteristics are similar to non-reinforced PP-H.	0°C	+110°C
polyvinylidene difluoride PVDF (homopolymer)	Tenacious, rigid thermoplastic containing fluorine, with excellent mechanical, physical and thermal properties and excellent weathering resistance. Resistant to inorganic acids (also oxidizing), aliphatic and aromatic hydrocarbons, chlorine and bromine. Less resistant to alkaline solutions (danger of stress-cracking corrosion).	-30°C	+145°C
polytetrafluoroethylene PTFE (unfilled)	Low pressure resistance, high creep tendency, low long-time steadiness. Resistant to almost all chemicals. Very good weathering resistance. Physiologically safe.	-270°C	+260°C

Material	Properties	Temperature	
		min.	max.
tetrafluoroethylene-hexafluoropropylene-copolymer FEP	Chemical resistance similar PTFE, but higher strength, lower creep tendency, transparent and diffusion-tight due to thermoplastic processability. Physiologically safe.	-200°C	+200°C
tetrafluoroethylene-perfluoroalkoxyvinylether-copolymer PFA	Chemical resistance similar PTFE, but higher strength, lower creep tendency, transparent and diffusion-tight due to thermoplastic processability. Physiologically safe.	-200°C	+260°C
polyamide PA12	Very good tenacity, high deformation resistance in the hot. Tenacious in the cold. Good abrasion strength, transparent. Generally good resistance to neutral aqueous media and aliphatic hydrocarbons. Non-resistant to acids, concentrated alkaline solutions and phenols. Weathering resistance: For outside application a protective coating is recommended.	-20°C	+100°C
polysulfone PSU	Good heat distortion resistance and hydrolytic stability. Well balanced, mechanical properties. Sensitive to stress-cracking corrosion. Transparent. Generally good resistance to aqueous media (salts, diluted acids, lyes) and aliphatic hydrocarbons. Non-resistant to ketones, esters, ethers, chlorinated and aromatic hydrocarbons. Weathering resistance: For outside application a protective coating is recommended.	-15°C	+160°C
polyetheretherketone PEEK	High-performance thermoplastic with outstanding thermal-mechanical properties. Chemical resistance similar to PP.	-50°C	+250°C
hard rubber coating HG1	Hard rubber coating based on NR/SBR/graphite (used for vertical pump suspension tubes). Moderate thermal-mechanical properties and chemical resistance. Good abrasion resistance.	0°C	+100°C
ethylene-propylene-diene-rubber EPDM	Average mechanical properties, not oil-resistant. Resistant to hot water, steam, aqueous media (salts, diluted acids, lyes) and many polar organic substances. Non-resistant to greases, oils, aliphatic, aromatic and halogenated hydrocarbons and fuels.	-40°C	+150°C

Material	Properties	Temperature	
		min.	max.
acrylonitrile-butadiene-rubber NBR	Average mechanical properties, oil-resistant. Resistant to aliphatic hydrocarbons and fuels. Non-resistant to acids, concentrated lyes and oxidizing media. Low ozone and weathering resistance.	-25°C	+120°C
fluoro-rubber FKM (= FPM)	Standard FKM quality. Moderate mechanical properties, good back force capability at higher temperatures, oil-resistant. Low cold flexibility. Good resistance to various acids and salt solutions, aliphatic hydrocarbons and oxidizing media. Only moderately resistant to lyes. Non-resistant to esters, ketones and amines. Excellent weathering resistance.	-10°C	+200°C
fluoro-rubber FKM+	Higher quality FKM. Technical properties are similar to standard FKM, but clearly superior chemical resistance to more concentrated acids and various other media in this resistance list. <b><i>It should be noted that FKM+ is not included in all STÜBBE products and products with FKM+ are labeled accordingly. If in doubt, we ask for consultation.</i></b>	-10°C	+200°C
perfluoro-rubber FFKM	Mechanical properties are similar to those of FKM, but thermally more stressable. Best chemical resistance of all mentioned rubber types. Excellent weathering resistance.	-10°C	+260°C
carbon	Synthetic resin bounded carbon. Good slip properties (used for bearings and bushes). Good thermal resistance. The chemical resistance is generally good, but in cases of strong, concentrated acids and oxidizing media reduced due to the carbon and/or synthetic resin.		approx. +200°C
silicon carbide (pressureless sintered) SSiC	For slip bearings and bushes used ceramic high performance material. High thermal and very universal chemical resistance.		approx. +1500°C

Material	Properties	Temperature	
		min.	max.
Al <sub>2</sub> O <sub>3</sub>	Oxide ceramics on the bases of aluminium oxide (used for bearings and axes). Excellent resistance against most organic substances (especially hydrocarbons and solvents), various inorganic acids, aqueous and oxidizing media. Non-resistant to lyes at higher temperatures. Unsuitable for hydrofluoric acid.		approx. +1900°C
Al <sub>2</sub> O <sub>3</sub> Sensor	Aluminium oxide ceramics based sensors of product groups HFT und PTM. Resistance similar Al <sub>2</sub> O <sub>3</sub> , but with limitations due to the electronics embedded in the ceramic matrix.	-25°C	+125°C
ZrO <sub>2</sub>	Oxide ceramics on the bases of zirconium(IV) oxide (zirconia). Excellent resistance against most organic substances (especially hydrocarbons and solvents), various inorganic acids, aqueous and oxidizing media and lyes. Unsuitable for hydrofluoric acid.		+900°C
V2A (alloy 1.4301)	Stainless, austenitic chrom-nickel steel with good corrosion resistance.		approx. +700°C
V4A (alloy 1.4571)	Stainless, austenitic chrom-nickel steel, improved corrosion resistance in comparison to 1.4301.		approx. +700°C
Hastelloy C (alloy 2.4537)	High temperature alloy on the basis of nickel, chromium and molybdenum. Very corrosion resistant to moist chlorine, aqueous solutions of chlorine, chlorides and hypochlorites, sulfuric acid, phosphoric acid, acetic acid and formic acid.		approx. +1000°C



## List of Media

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acetaldehyde	1014	acrylonitrile	1027	4-aminobenzoic acid	1049
acetamide	1015	adipic acid	1029	1-aminobutane	1161
acetanilide	1017	air	1461	aminocarboxylic acids	1052
acetic acid	1310	alkanesulfonic acids (mixtures)	1031	aminocyclohexane	1250
acetic acid amide	1015	alkyl sulfates	1332	2-aminoethanol	1313
acetic acid amyl ester	1078	allyl alcohol	1032	2-aminoglutaric acid	1358
acetic acid anilide	1017	allyl chloride	1033	(R)-2-amino-3-mercaptopropionic acid	1253
acetic acid butyl ester	1160	alum	1030	aminomethane	1482
acetic acid ethyl ester	1317	alumina	1044	aminosulfuric acid	1657
acetic acid methyl ester	1481	aluminium acetate basic	1034	ammonia, aqueous solution	1054
acetic acid potassium salt	1386	aluminium ammonium sulfate	1035	ammonia, gaseous	1053
acetic acid sodium salt	1509	aluminium chlorate	1036	ammonium acetate	1056
acetic acid vinyl ester	1695	aluminium chloride	1037	ammonium alum	1035
acetic anhydride	1016	aluminium fluoride	1040	ammonium aluminium sulfate	1035
acetone	1018	aluminium fluorosilicate	1041	ammonium benzoate	1057
acetonitrile	1020	aluminium hydroxide	1042	ammonium bicarbonate	1066
acetophenone	1021	aluminium iron(II) sulfate	1039	ammonium bisulfate	1067
acetylacetone	1022	aluminium nitrate	1043	ammonium bisulfide	1068
acetylbenzene	1021	aluminium oxide	1044	ammonium bromide	1058
acetyl chloride	1023	aluminium sulfate	1045	ammonium carbonate	1059
acetylene	1024	aluminium trifluoride	1040	ammonium chloride	1060
acetylene tetrachloride	1670	amidosulfuric acid	1657	ammonium citrate	1061
2-acetyloxybenzoic acid	1025	aminoacetic acid	1051	ammonium dichromate	1062
acetylsalicylic acid	1025	amino acids	1052	ammonium dihydrogenphosphate	1099
O-acetylsalicylic acid	1025	p-aminoazobenzene	1048	ammonium fluoride	1063
acrylic acid butyl ester	1028	aminobenzene	1083	ammonium formate	1065
acrylic acid ethyl ester	1318	4-aminobenzenesulfonic acid	1050	ammonium heptamolybdate	1069

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ammonium hexafluorosilicate	1064	aniline sulfate	1084	barium nitrate	1104
ammonium hydrogencarbonate	1066	aniline sulfite	1085	barium peroxide	1105
ammonium hydrogenphosphate	1073	aniline-4-sulfonic acid	1050	barium sulfate	1106
ammonium hydrogensulfate	1067	anilinium sulfate	1084	barium sulfide	1107
ammonium hydrogensulfide	1068	anilinium sulfite	1085	baryta white	1106
ammonium hydroxide	1054	p-anisaldehyde	1086	beer	1129
ammonium iron(II) sulfate	1046	anise oil	1088	beer colour	1130
ammonium iron(III) sulfate	1763	anisole	1087	benzal chloride	1110
ammonium metatungstate	1055	antimony pentachloride	1091	benzaldehyde	1111
ammonium molybdate	1069	antimony trichloride	1092	benzaldehyde oxime	1090
ammonium nitrate	1070	antimony(III) chloride	1092	benzamide	1112
ammonium oxalate	1071	antimony(V) chloride	1091	benzene	1117
ammonium peroxodisulfate	1072	aqua regia	1425	benzenecarboxylic acid	1116
ammonium persulfate	1072	argon	2776	benzene-1,2-dicarboxylic acid	1598
ammonium rhodanide	1074	arsenic acid	1095	benzenesulfonic acid	1120
ammonium sulfamate	1075	arsenic sulfides	1096	benzine	1447
ammonium sulfate	1076	arsenic trioxide	1097	benzoic acid	1116
ammonium sulfide	1077	arsenic(III) oxide	1097	benzoic acid amide	1112
ammonium thiocyanate	1074	arsenious acid	1094	benzoic acid ammonium salt	1057
amyl acetate	1078	arsenious acid anhydride	1097	benzoic acid anhydride	1118
amyl alcohol	1079	L(+)-ascorbic acid	1098	benzoic acid calcium salt	1172
amyl alcohol (mixture of isomers)	1583	9-azafluorene	1197	benzoic acid chloride	1121
sec-amyl alcohol	1745	1-azanaphthalene	1202	benzoic acid sodium salt	1119
amyl chloride	1080	barium carbonate	1100	benzoic anhydride	1118
amyl laurate	1081	barium chloride	1101	benzophenone	1290
p-tert-amyl phenol	1082	barium cyanide	1102	benzoyl chloride	1121
aniline	1083	barium hydroxide	1103	benzyl alcohol	1122

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benzyl chloride	1123	bromomethane	1483	4-tert-butylphenol	1164
N-benzyl-N-ethylaniline	1124	1,3-butadiene	1152	butyl phosphate	1165
N-benzyl-N-ethylphenylamine	1124	butane	1154	butylstearate	1653
benzylidene chloride	1110	butane-1,4-dicarboxylic acid	1029	1-butyne	1158
beryllium chloride	1126	butanedioic acid	1125	butyric acid	1159
beryllium fluoride	1127	1,4-butanediol	1153	cadmium acetate	1166
beryllium sulfate	1128	1-butanethiol	1156	cadmium chloride	1167
biphenyl	1287	butanoic acid	1159	cadmium cyanide	1168
1,1-bis(4-chlorophenyl)-2,2,2-trichloroethane	1255	1-butanol	1155	cadmium sulfate	1169
bis(2-hydroxyethyl)amine	1271	2-butanol	1739	calcium acetate	1170
bis(2-hydroxyethyl)ether	1273	butanone	1328	calcium acetylide	1174
borax	1546	trans-2-butenal	1239	calcium arsenate	1171
boric acid	1142	1-butene	1157	calcium benzoate	1172
boric acid trimethyl ester	1689	cis-2-butene-1,4-dioic acid	1470	calcium bicarbonate	1180
(+/-)-borneol	1417	trans-2-butenic acid	1241	calcium bisulfite	1192
boron trichloride	1143	2-butoxyethanol	2143	calcium bromide	1173
boron trifluoride	1144	butyl Cellosolve	2143	calcium carbide	1174
brandy	1711	butyl acetate	1160	calcium carbonate	1175
brine	1525	butyl acrylate	1028	calcium chlorate	1176
brine	1624	butyl alcohol	1155	calcium chloride	1177
bromine	1148	sec-butyl alcohol	1739	calcium chloride hypochlorite	1215
1-bromobutane	1162	butylamine	1161	calcium chromate	1178
1-bromo-2-chloroethane	1145	butyl bromide	1162	calcium dihydrogenphosphate	1188
bromochloromethane	1210	butyl chloride	1163	calcium fluoride	1179
bromoethane	1147	butylene	1157	calcium hydrogencarbonate	1180
bromoform	1149	butyl ether	1260	calcium hydrosulfide	1181
		1-butyl mercaptan	1156	calcium hydrosulfite	1192

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calcium hydroxide	1182	caustic soda	1547	chloroethanol	1212
calcium nitrate	1184	cetylic acid	1578	chloroethylene	1696
calcium othoarsenate	1171	chloral	1682	chloroform	1217
calcium oxalate	1185	chloral hydrate	1206	1-chloro-4-hydroxy-2-methylbenzene	1216
calcium permanganate	1186	chloramine B	1207	chloromethane	1484
calcium peroxide	1187	chloramine mixture: NaOCl + NH <sub>3</sub>	1728	chloromethyloxirane	1307
calcium sulfate	1189	chloramine mixture: NaOCl + (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	1729	4-chloro-3-methylphenol	1216
calcium sulfide	1190	chloric acid	1219	1-chloropentane	1080
calcium sulfite	1191	chloride of lime	1215	chlorophenol (2-, 3- a. 4-)	1218
(+/-)-camphor	1193	chlorine	1213	chloropicrin	1686
camphor oil	1194	chlorine, aqueous solution	1224	3-chloro-1,2-propanediol	1361
e-caprolactam	1195	chlorine dioxide, neutral solution (pH 7)	1821	1-chloro-2-propanone	1205
e-caprolactone	1196	chloroacetaldehyde	1204	3-chloropropene	1033
carbamide	1363	chloroacetic acid	1211	chlorosulfonic acid	1220
carbazole	1197	chloroacetic acid ethyl ester	1501	chlorosulfuric acid	1220
carbide	1174	chloroacetic acid methyl ester	1502	chlorotoluene (2-, 3- a. 4-)	1221
carbon dioxide	1423	chloroacetone	1205	a-chlorotoluene	1123
carbon disulfide	1199	chloroallyl chloride	1268	chlorotrifluoroethylene	1222
carbon monoxide	1424	chlorobenzene	1208	chromatite	1178
carbon tetrabromide	1669	N-chlorobenzenesulfonic acid amide sodium salt	1207	chromic acid	1232
carbon tetrachloride	1672	1-chlorobutane	1163	chromium alum	1226
carbonic acid diamide	1363	4-chloro-m-cresol	1216	chromium(III) chloride	1227
carbonic acid dichloride	1591	chlorodifluoromethane	1347	chromium(III) fluoride	1228
carbonyl dichloride	1591	1-chloro-2,3-epoxypropane	1307	chromium(III) hydroxide	1229
Carbowax	1604	chloroethanal	1204	chromium(III) nitrate	1230
carboxylic acids > C6	1335	chloroethane	1320	chromium(III) oxide	1231
Caro's acid	1200			chromium(III) potassium sulfate	1226

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chromosulfuric acid	1235	crude oil	1309	dibutyl phthalate	1261
chromosulfuric acid	1234	cumene	1242	dichloroacetic acid	1263
chromosulfuric acid	1237	cyanamide	1243	dichlorobenzene (o-, m- a. p-)	1262
chromosulfuric acid	1236	cyanoacetic acid ethyl ester	1244	dichlorodifluoromethane	1345
chromosulfuric acid	1233	cyclohexanamine	1250	dichlorodiphenyltrichloroethane	1255
citric acid	1238	cyclohexane	1246	1,2-dichloroethane	1264
citric acid triammonium salt	1061	cyclohexanol	1247	1,1-dichloroethene	1265
citric acid trisodium salt	1528	cyclohexanone	1248	1,1-dichloroethylene	1265
cod-liver oil	1446	cyclohexene	1249	dichlorofluoromethane	1346
colamine	1313	cyclohexylamine	1250	dichloromethane	1266
condensed water	1702	cymene (o-, m- a. p-)	1252	1,2-dichloropropane	1267
copper tetramine compounds	1438	cys	1253	1,3-dichloropropene	1268
copper(I) chloride	1429	L-cysteine	1253	1,2-dichlorotetrafluoroethane	1269
copper(I) cyanide	1434	L-cystine	1254	a,a-dichlorotoluene	1110
copper(II) acetate arsenate(III)	1431	DDT	1255	Diesel fuels	1270
copper(II) carbonate basic	1432	decahydronaphthalene	1256	diethanolamine	1271
copper(II) carbonate hydroxide	1432	decaline	1256	1,2-diethoxyethane	1325
copper(II) chloride	1433	n-decane	2185	diethylamine	1272
copper(II) fluoride	1437	dextran	1257	diethylene glycol	1273
copper(II) hydroxide carbonate	1432	dextrin	1258	diethyl ether	1274
copper(II) nitrate	1435	dextrose	1259	diethyl glycol	1325
copper(II) sulfate	1436	diamine	1371	diethyl ketone	1275
creosote	1426	1,2-diaminoethane	1322	diglycol	1273
cresol (o-, m-, a. p-)	1427	dibenzene	1287	diglycolic acid	1276
cresol sulfonic acid	1428	dibenzo[b,d]pyrrole	1197	1,4-dihydroxybenzene	1373
crotonaldehyde	1239	1,2-dibromoethane	1321	diisobutyl ketone	1277
crotonic acid	1241	dibutyl ether	1260	diisopropyl ether	1278

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N,N-dimethylacetamide	1955	EDTA	1323	ethyl cyanoacetate	1244
dimethylamine	1279	EDTA DiNa-salt	1731	ethylene	1314
N,N-dimethylaniline	1280	EDTA TetraNa-salt	1735	ethylene bromide	1321
dimethylbenzene (mixture of isomers)	1715	epichlorohydrin	1307	ethylene chloride	1264
dimethylene oxide	1326	1,2-epoxypropane	1610	ethylene chlorohydrin	1212
dimethylformamide	1282	ethanal	1014	ethylenediamine	1322
N,N-dimethylformamide	1282	ethane	1311	ethylenediaminetetraacetic acid	1323
2,6-dimethyl-4-heptanone	1277	ethane-1,2-diamine	1322	ethylenediaminetetraacetic acid disodium salt	1731
1,1-dimethylhydrazine	1283	ethane-1,2-dicarboxylic acid	1125	ethylenediaminetetraacetic acid tetrasodium salt	1735
dimethyl ketone	1018	ethanedioic acid	1575	ethylene glycol	1324
dimethyl phthalate	1284	1,2-ethanediol	1324	ethylene glycol diethyl ether	1325
dimethyl sulfate	1491	ethanenitrile	1020	ethylene glycol dinitrate	1559
1,4-dioxane	1286	ethanoic acid	1310	ethylene glycol monobutyl ether	2143
diphenyl	1287	ethanoic anhydride	1016	ethylene glycol monomethyl ether	2260
diphenylamine	1288	ethanoic chloride	1023	ethylene oxide	1326
diphenyl ether	1289	ethanol	1312	ethyl ether	1274
diphenyl ketone	1290	ethanolamine	1313	2-ethyl-1-hexanol	1316
diphenyl oxide	1289	ethene	1314	ethyl methyl ketone	1328
disodium hydrogenphosphate	1285	ether	1274	N-ethyl-N-phenylbenzylamine	1124
disodium tetraborate	1546	ethinylcarbinol	1607	ethyne	1024
DMAc	1955	ethyl acetate	1317	fatty acids > C6	1335
DMF	1282	ethyl acrylate	1318	fatty alcohol sulfates	1332
DMP	1284	ethyl alcohol	1312	fatty alcohols	1331
dodecanoic acid	1442	ethylbenzene	1319	fatty alcohol ethoxylate isoC13O(EO)8	1353
dodecanoic acid pentyl ester	1081	ethyl bromide	1147	ferric chloride	1298
1-dodecanol	1444	ethyl chloride	1320	fish liver oil	1446
dodecanoyl chloride	1443	ethyl chloroacetate	1501		

## List of Media

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fluorine	1336
fluoroboric acid	1337
fluorosilicic acid	1338
fluorspar	1179
formaldehyde	1340
formamide	1341
formic acid	1047
formic acid amide	1341
formic acid ammonium salt	1065
formic acid methyl ester	1487
formic acid sodium salt	1531
Freon 11 (CFC-11, F-11)	1342
Freon 112 (CFC-112, F-112)	1343
Freon 113 (CFC-113, F-113)	1344
Freon 12 (CFC-12, F-12)	1345
Freon 21 (HCFC-21, F-21)	1346
Freon 22 (CFC-22, F-22)	1347
Frigen 11	1342
Frigen 114	1269
D-fructose	1349
fruit juice, fermented	1565
fruit juice, not fermented	1564
fruit juices	1348
fruit pulp	1563
furan	1350
furfural	1351
furfuryl alcohol	1352

2-furylaldehyde	1351
2-furylmethanol	1352
gallotannic acid	1665
gasoline, free of lead and aromatics	1113
gasoline, Super	1114
gelatine	1356
Genapol X-080	1353
D(+)-glucose	1259
glutamic acid	1358
glycerol	1360
glycine	1051
glycol	1324
glycolic acid	1359
guajacol/cresol-mixture	1426
gypsum	1189
n-heptane	1364
hexachloroethane	1584
hexadecanoic acid	1578
hexafluorosilicic acid	1338
hexahydro-2H-azepin-2-one	1195
hexahydrobenzene	1246
hexahydrotoluene	1485
n-hexane	1365
hexanedioic acid	1029
1,2,6-hexanetriol	1366
6-hexanolide	1196
honey	1370

hydrazine	1371
hydrazine hydrate	1372
hydrazinium hydroxide	1372
hydriodic acid	1383
hydrobromic acid	1151
hydrochloric acid	1623
hydrocyanic acid	1132
hydrofluoric acid	1339
hydrogen	1708
hydrogen chloride	1225
hydrogen cyanide	1132
hydrogen peroxide	1709
hydrogen sulfide	1635
hydrogen superoxide	1709
hydrogen tetrafluoroborate	1337
hydroquinone	1373
hydroxyacetic acid	1359
hydroxyaluminium diacetate	1034
hydroxybenzene	1588
2-hydroxybenzoic acid	1620
2-hydroxybenzoic acid methyl ester	1490
hydroxybutanedioic acid	1093
6-hydroxyhexanoic acid lactone	1196
hydroxylamine sulfate	1374
hydroxylammonium sulfate	1374
2-hydroxymethylfuran	1352

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2-hydroxy-1,2,3-propanetricarboxylic acid	1238
3-hydroxypropene	1032
2-hydroxypropionic acid	1493
hydroxysuccinic acid	1093
2,2'-iminodiethanol	1271
iodine	1380
iodine potassium iodide solution	1381
iron oxalate	1303
iron(II) chloride	1296
iron(II) hydroxide	1297
iron(II) nitrate	1301
iron(II) sulfate	1302
iron(II)/(III) oxalate	1303
iron(III) chloride	1298
iron(III) chloride sulfate	1295
iron(III) nitrate	1299
iron(III) sulfate	1300
isobutyl methyl ketone	1488
isobutyltrimethylmethane	1377
isooctane	1377
isooctanol	1316
isopropanol	1378
Isopropyl alcohol	1378
isopropylbenzene	1242
isopropyl ether	1278
Isopropylmethylbenzene (o-, m- a. p-)	1252

isovalerone	1277
kerosene	1586
lactic acid	1493
lactic acid sodium salt	1535
D(+)-lactobiose	1439
D(+)-lactose	1439
lanolin	1440
latex	1441
lauric acid	1442
lauric acid amyl ester	1081
lauric acid chloride	1443
lauroyl chloride	1443
lauryl alcohol	1444
lead tetraethyl	1673
lead(II) acetate	1133
lead arsenate	1134
lead(II) carbonate	1135
lead(II) chloride	1137
lead(II) hydrogenarsenate	1134
lead(II) nitrate	1138
lead(II) sulfate	1139
light oil	1448
light petrol	1447
lighting gas, benzene-free	1451
lignoceryl alcohol	1698
lime	1175
lime milk	1182

linoleic acid	1453
linseed oil	1450
liqueurs	1452
liquid manure	1379
lithium bromide	1455
lithium carbonate	1456
lithium chloride	1457
lithium hydroxide	1459
lithium sulfate	1460
magnesium carbonate basic	1462
magnesium chloride	1463
magnesium fluoride	1464
magnesium hydroxide	1465
magnesium nitrate	1466
magnesium oxide	1467
magnesium sulfate	1468
magnesium sulfite	1469
maleic acid	1470
malic acid	1093
malonic acid	1478
manganese dioxide	1472
manganese(II) chloride	1471
manganese(II) sulfate	1473
manganese(IV) oxide	1472
marmelade	1474
mercaptoacetic acid	1676
mercury	1612



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mercury(II) chloride	1614	methylcyclohexane	1485	molasses	1476
mercury(II) cyanide	1615	methylene chloride	1266	Monoamyl phthalate	1599
mercury(II) nitrate	1616	methyl ethyl ketone (MEK)	1328	monobutyl phthalate	1600
methacrylic acid methyl ester	1489	methyl isobutyl ketone (MIBK)	1488	monochloroacetic acid	1211
methanal	1340	methyl methacrylate	1489	monochloroacetic acid ethyl ester	1501
methane	1477	4-methyl-2-pentanone	1488	monochloroacetic acid methyl ester	1502
methanedicarboxylic acid	1478	methylphenol (o-, m-, a. p-)	1427	monochloroacetone	1205
methanesulfonic acid	1480	methyl phenyl ether	1087	monochlorobenzene	1208
methanoic acid	1047	methyl phenyl ketone	1021	monopentyl phthalate	1599
methanol	1479	(S)-(-)-1-methyl-2-(3-pyridyl)pyrrolidine	1554	morpholine	1505
4-methoxybenzaldehyde	1086	methylsulfuric acid	1480	murcury(II) sulfat	1613
methoxybenzene	1087	milk	1492	naphthalene	1507
2-methoxyethanol	2260	milk sugar	1439	naphthalene sulfonic acid (mixture of isomers)	1508
methyl acetate	1481	mineral oils	1494	natural gas	1308
methyl Cellosolve	2260	mineral water	1704	niacin	1555
methyl chloride	1484	mixed acid: H2SO4 18%, HNO3 15%, HF 5%	1499	nickel(II) chloride	1548
methyl formate	1487	mixed acid: H2SO4 25%, HNO3 25%, HF 10%	1506	nickel(II) nitrate	1549
methyl salicylate	1490	mixed acid: H2SO4 50%, HNO3 33%	1497	nickel(II) sulfate	1550
methylacetic acid	1608	mixed acid: H2SO4 50%, HNO3 50%	1498	nickel(II) sulfide	1551
methyl alcohol	1479	mixed acid: HCl 27%, HNO3 18%	1425	nickel(II) sulfite	1552
methylamine	1482	mixed acid: HNO3 12%, HF 5%	1723	nickel(II) L-tartrate	1553
methylbenzene	1679	mixed acid: HNO3 20%, H2SO4 10%	1495	(S)-(-)-nicotine	1554
4-methylbenzenesulfonic acid	1582	mixed acid: HNO3 20%, HF 5%	1724	nicotinic acid	1555
methylbromide	1483	mixed acid: HNO3 50%, HF 10%	1500	nitric acid	1621
4-(2-methyl-2-butyl)phenol	1082	mixed acid: HNO3 59%, HF 4,5%	1503	2,2',2"-nitrioltriethanol	1687
methyl chloroacetate	1502	mixed acid: HNO3 87%, H2SO4 10%	1496	nitrobenzene	1556
methyl cyanide	1020				

## List of Media

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nitrobenzoic acid (o-, m- a. p-)	1557	oxirane	1326	phenylamine	1083
nitrogen	1659	oxolane	1674	N-phenylaniline	1288
nitroglycol	1559	oxygen	1625	4-phenylazoaniline	1048
nitrophenol (o-, m- a. p-)	1560	ozone	1576	phenylethane	1319
nitrotoluene (o-, m- a. p-)	1562	PABA	1049	phenyl ether	1289
nitrotrichloromethane	1686	PAC	1603	phenylethylene	1656
nitrous acid	1622	palm kernel oil	1579	phenylformic acid	1116
nitrous gases	1007	palm seed oil	1579	phenylhydrazine	1590
cis,cis-9,12-octadecadienoic acid	1453	palmitic acid	1578	2-phenylpropane	1242
octadecanoic acid	1652	paraffin oil	1694	phenylsulfonic acid	1120
octadecanoic acid butyl ester	1653	2,4-pentanedione	1022	phosgene	1591
cis-9-octadecenoic acid	1573	pentanol (mixture of isomers)	1583	phosphane	1594
n-octane	1566	1-pentanol	1079	phosphine	1594
octyloxytoluene (o-, m-, a. p-)	1567	2-pentanol	1745	phosphoric acid	1574
octyl tolyl ether (o-, m-, a. p-)	1567	3-pentanone	1275	phosphoric acid butyl ester	1165
oil (vegetable + animal)	1569	1-pentyl acetate	1078	phosphoric acid tributyl ester	1681
oil of turpentine	1668	1-pentyl chloride	1080	phosphoric acid trichloride	1597
oleic acid	1573	perchloric acid	1585	phosphoric acid trioctyl ester	1690
oleum	1570	perchloroethane	1584	phosphoroxo chloride	1597
oleum vapours	1571	perchloroethylene	1671	phosphorus pentoxide	1596
olive oil	1572	peroxomonosulfuric acid	1200	phosphorus trichloride	1595
orthophosphoric acid	1574	peroxosulfuric acid	1200	phosphorus(III) chloride	1595
orthosilicic acid	1421	petrol-benzene mixture	1115	phosphorus(V) oxide	1596
oxalic acid	1575	petroleum	1309	phosphoryl chloride	1597
oxalic acid calcium salt	1185	petroleum ether	1447	phthalic acid	1598
oxalic acid diammonium salt	1071	phenol	1588	phthalic acid dibutyl ester	1261
oxalic acid iron salts	1303	N-phenylacetamide	1017	phthalic acid dimethyl ester	1284

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<u>phthalic acid monobutyl ester</u>	<u>1600</u>	<u>potassium dichromate</u>	<u>1388</u>	<u>potassium L-tartrate</u>	<u>1415</u>
<u>phthalic acid monopentyl ester</u>	<u>1599</u>	<u>potassium dihydrogenphosphate</u>	<u>1411</u>	<u>propane</u>	<u>1605</u>
<u>picric acid</u>	<u>1601</u>	<u>potassium ferricyanide</u>	<u>1330</u>	<u>propanedioic acid</u>	<u>1478</u>
<u>pivaloyl chloride</u>	<u>2218</u>	<u>potassium ferrocyanide</u>	<u>1329</u>	<u>1,2-propanediol</u>	<u>1609</u>
<u>polyaluminium chloride</u>	<u>1603</u>	<u>potassium fluoride</u>	<u>1402</u>	<u>propanetriol</u>	<u>1360</u>
<u>polydimethylsiloxane</u>	<u>1643</u>	<u>potassium hexacyanoferrate(II)</u>	<u>1329</u>	<u>propanoic acid</u>	<u>1608</u>
<u>polyethylene glycol</u>	<u>1604</u>	<u>potassium hexacyanoferrate(III)</u>	<u>1330</u>	<u>1-propanol</u>	<u>1606</u>
<u>polyglycol, PEG</u>	<u>1604</u>	<u>potassium hydrogencarbonate</u>	<u>1387</u>	<u>2-propanol</u>	<u>1378</u>
<u>potash</u>	<u>1395</u>	<u>potassium hydrogensulfate</u>	<u>1389</u>	<u>propanone</u>	<u>1018</u>
<u>potash lye</u>	<u>1384</u>	<u>potassium hydrogensulfite</u>	<u>1390</u>	<u>propargyl alcohol</u>	<u>1607</u>
<u>potassium acetate</u>	<u>1386</u>	<u>potassium hydrogen-L-tartrate</u>	<u>1391</u>	<u>propene oxide</u>	<u>1610</u>
<u>potassium alum</u>	<u>1030</u>	<u>potassium hydroxide</u>	<u>1384</u>	<u>2-propenoic acid ethyl ester</u>	<u>1318</u>
<u>potassium aluminium sulfate</u>	<u>1030</u>	<u>potassium hypochlorite</u>	<u>1403</u>	<u>propenol</u>	<u>1032</u>
<u>potassium bicarbonate</u>	<u>1387</u>	<u>potassium iodate</u>	<u>1404</u>	<u>2-propin-1-ol</u>	<u>1607</u>
<u>potassium bisulfate</u>	<u>1389</u>	<u>potassium iodide</u>	<u>1405</u>	<u>propionic acid</u>	<u>1608</u>
<u>potassium bisulfite</u>	<u>1390</u>	<u>potassium manganate(VII)</u>	<u>1409</u>	<u>propyl alcohol</u>	<u>1606</u>
<u>potassium borate</u>	<u>1392</u>	<u>potassium metaborate</u>	<u>1406</u>	<u>propylene oxide</u>	<u>1610</u>
<u>potassium bromate</u>	<u>1393</u>	<u>potassium nitrate</u>	<u>1385</u>	<u>propylene chloride</u>	<u>1267</u>
<u>potassium bromide</u>	<u>1394</u>	<u>potassium nitrite</u>	<u>1407</u>	<u>1,2-propylene glycol</u>	<u>1609</u>
<u>potassium carbonate</u>	<u>1395</u>	<u>potassium perchlorate</u>	<u>1408</u>	<u>prussiate, red</u>	<u>1330</u>
<u>potassium chlorate</u>	<u>1396</u>	<u>potassium permanganate</u>	<u>1409</u>	<u>prussiate, yellow</u>	<u>1329</u>
<u>potassium chloride</u>	<u>1397</u>	<u>potassium peroxodisulfate</u>	<u>1410</u>	<u>pure water</u>	<u>1705</u>
<u>potassium chlorite</u>	<u>1398</u>	<u>potassium persulfate</u>	<u>1410</u>	<u>pyridine</u>	<u>1611</u>
<u>potassium chromate</u>	<u>1399</u>	<u>potassium polyiodide solution</u>	<u>1381</u>	<u>pyridine-3-carboxylic acid</u>	<u>1555</u>
<u>potassium chromium(III) sulfate</u>	<u>1226</u>	<u>potassium sulfate</u>	<u>1412</u>	<u>quinine</u>	<u>1201</u>
<u>potassium cyanate</u>	<u>1400</u>	<u>potassium sulfide</u>	<u>1413</u>	<u>quinol</u>	<u>1373</u>
<u>potassium cyanide</u>	<u>1401</u>	<u>potassium sulfite</u>	<u>1414</u>	<u>quinoline</u>	<u>1202</u>

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salicylic acid	1620	sodium bromide	1521	sodium perchlorate	1538
salicylic acid methyl ester	1490	sodium carbonate	1522	sodium peroxide	1539
Schweinfurter Green	1431	sodium chlorate	1524	sodium peroxoborate	1519
seawater	1703	sodium chloride	1525	sodium peroxodisulfate	1540
silicic acid	1421	sodium chlorite	1526	sodium persulfate	1540
silicone oil	1643	sodium chromate	1527	sodium phosphate	1541
silver acetate	1638	sodium citrate	1528	sodium phosphinate	1533
silver chloride	1639	sodium cyanide	1529	sodium silicate	1542
silver cyanide	1640	sodium dichromate	1514	sodium sulfate	1543
silver nitrate	1641	sodium fluoride	1530	sodium sulfide	1544
silver sulfate	1642	sodium fluorosilicate	1420	sodium sulfite	1545
slaked lime	1182	sodium formate	1531	sodium tetraborate	1546
soap	1627	sodium hexafluorosilicate	1420	sodium thiosulfate	1089
soap hydrous solution	1637	sodium hydrogencarbonate	1513	soft soap	1627
soda	1522	sodium hydrogenphosphate	1285	sperm oil	1644
soda lye	1547	sodium hydrogensulfate	1515	spin bath acid with carbondisulfide	1646
soda water glass	1542	sodium hydrogensulfide	1517	starch	1649
sodium acetate	1509	sodium hydrogensulfite	1518	starch gum	1258
sodium aluminate	1510	sodium hydroxide	1547	starch sirup	1650
sodium arsenate	1511	sodium hypochlorite	1209	stearic acid	1652
sodium arsenite	1512	sodium hypophosphite	1533	stearic acid butyl ester	1653
sodium benzoate	1119	sodium iodide	1534	strontium chloride	1655
sodium bicarbonate	1513	sodium lactate	1535	styrene	1656
sodium bisulfate	1515	sodium metasilicate	1542	succinic acid	1125
sodium bisulfide	1517	sodium nitrate	1536	sugar sirup	1722
sodium bisulfite	1518	sodium nitrite	1537	sulfamic acid	1657
sodium bromate	1520	sodium perborate	1519	sulfamic acid ammonium salt	1075

## List of Media

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sulfanilic acid	1050	TEL	1673	tributyl phosphate	1681
sulfur	1628	tetrabromomethane	1669	trichloroacetaldehyde	1682
sulfur dioxide, aqueous solution	1636	1,1,2,2-tetrachloro-1,2-difluoroethane	1343	trichloroacetaldehyde hydrate	1206
sulfur dioxide, gaseous	1629	1,1,2,2-tetrachloroethane	1670	trichloroacetic acid	1684
sulfur trioxide	1634	tetrachloroethene	1671	trichlorobenzene (mixture of isomers)	1683
sulfuric acid	1632	tetrachloroethylene	1671	trichloroborane	1143
sulfuric acid anhydride	1634	tetrachloromethane	1672	trichloroethene	1685
sulfuric acid dimethyl ester	1491	1-tetracosanol	1698	trichloroethylene	1685
sulfurous acid	1636	tetraethyllead	1673	trichlorofluoromethane	1342
sulfurous acid dichloride	1677	tetrafluoroboric acid	1337	trichloromethane	1217
SurTec 104 universal cleaner	1658	1,2,3,4-tetrahydrobenzene	1249	trichloronitromethane	1686
table salt	1525	tetrahydrofuran	1674	1,2,2-trichloro-1,1,2-trifluoroethane	1344
Tanigan® extra A	1660	1,2,3,4-tetrahydronaphthalene	1675	triethanolamine	1687
Tanigan® extra B	1661	tetrahydro-1,4-oxazine	1505	triethylene glycol	1688
Tanigan® extra D	1662	Tetralin®	1675	trifluoroborane	1144
Tanigan® F	1663	tetramethylene glycol	1153	trifluorovinyl chloride	1222
Tanigan® U	1664	THF	1674	triglyceride	1333
tannic acid	1665	thioglycolic acid	1676	triglycol	1688
tannin	1665	thionyl chloride	1677	1,2,6-trihydroxyhexane	1366
tartar	1391	thiophene	1678	2,6,8-trihydroxypurine	1362
L(+)-tartaric acid	1713	tin(II) chloride	1721	trimethylacetyl chloride	2218
L(+)-tartaric acid dipotassium salt	1415	Titriplex® II	1323	trimethyl borate	1689
L(+)-tartaric acid monopotassium salt	1391	Titriplex® III	1731	2,2,4-trimethylpentane	1377
L(+)-tartaric acid nickel salt	1553	toluene	1679	2,4,6-trinitrophenol	1601
tartaric acid, naturally	1713	p-toluenesulfonic acid	1582	trioctyl phosphate	1690
TBP	1681	triammonium citrate	1061	trioxygen	1576
TCE	1670	tribromomethane	1149	trisodium citrate	1528

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trisodium phosphate	1541
turpentine	1666
turpentine substitute	1667
urea	1363
uric acid	1362
urine	1692
vaseline	1693
vaseline oil	1694
vinyl acetate	1695
vinylbenzene	1656
vinyl chloride	1696
vinyl cyanide	1027
vinylidene dichloride	1265
viscose spinning solutions	1697
vitamin C	1098
waste gas with carbon dioxide	1006
waste gas with carbon monoxide	1005
waste gas with hydrogen cyanide	1003
waste gas with hydrogen fluoride	1004
waste gas with nitrous gases	1007
waste gas with sulfur dioxide	1010
waste gas with sulfur trioxide	1012
water, condensed	1702
water, mineral water	1704
water, pure	1705
water, seawater	1703
water, traces of butanol and phenol	1706

wax alcohol	1698
wine vinegar	1712
wine, red and white	1710
xylene (mixture of isomers)	1715
zinc carbonate basic	1716
zinc chloride	1717
zinc hydrogenphosphate	1719
zinc hydroxide carbonate	1716
zinc nitrate	1718
zinc sulfate	1720

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1003 HCN CHN	waste gas with hydrogen cyanide	gf	GK	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf	GK	40					+	+	+																	
		gf	GK	60					+	+	+																	
		gf	GK	80					+	+	+																	
		gf	GK	100					+	+	+																	
		gf	GK	120						+	+																	
1004 HF	waste gas with hydrogen fluoride	gf	GK	20	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf	GK	40	+	+	+		+	+	+		+	+	0	+	+	+							+	+	+	
		gf	GK	60	+	+	+		+	+	+		+	+	0	+	+								+	+	+	
		gf	GK	80					+	+	+					+	+											
		gf	GK	100					+	+	+																	
		gf	GK	120					+	+	+																	
1005 CO	waste gas with carbon monoxide	gf	GK	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf	GK	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf	GK	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		gf	GK	80			+	+	+	+	+		+			+	+	+										
		gf	GK	100					+	+	+						+	+										
		gf	GK	120					+	+	+					+	+											
1006 CO2	waste gas with carbon dioxide	gf	GK	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf	GK	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf	GK	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf	GK	80					+	+	+																	
		gf	GK	100					+	+	+																	
		gf	GK	120																								

**Abbreviations:** P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution  
 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1007 waste gas with nitrous gases nitrous gases NOx	gf	GK	20	+	+	+	+	+	+	+	+	+	0	+	+	+	+								+	
	gf	GK	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+								+	
	gf	GK	60	+	+	0	0	+	+	+		0	-	+	+	+	+								+	
	gf	GK	80					+	+	+				0	+	+	+									
	gf	GK	100					+	+	+					0	0	+									
	gf	GK	120					+	+	+							+									
1010 waste gas with sulfur dioxide SO2 O2S	gf	GK	20	+	+	+	+	+	+	+	+	+	0	+	+	+	+								+	
	gf	GK	40	+	+	+	+	+	+	+	+	+	-	+	+	+	+								+	
	gf	GK	60	+	+	+	+	+	+	+	0	+		+	+	+	+								+	
	gf	GK	80			+	+	+	+	+		+		+	+	+	+								+	
	gf	GK	100					+	+	+					+	+	+								0	
	gf	GK	120						+	+																-
1012 waste gas with sulfur trioxide SO3 O3S	gf	GK	20	+	+	+	+	+	+	+	+	+	0	+	+	+										
	gf	GK	40	+	+	+	+	+	+	+	+	+	-	+	+	+										
	gf	GK	60	+	+	0	0	+	+	+		0		+	+	+										
	gf	GK	80			0	0	+	+	+		0		0	+	+										
	gf	GK	100					+	+	+																
1014 acetaldehyde ethanal CH3CHO C2H4O P	wä	10%	20	+	+	+	+	+	+	+	+	0	+	-	+	+	+	+	+	+	+	+	+	+	+	0
	wä	10%	40	0	+	+	+	+	+	+		+		+	+	+	+	+	+	+	+	+	+	+	+	-
	wä	10%	60			+	+	+	+	+		+		+	0	0	+	+						+	+	
	wä	10%	80			+	+	+	+	+		+		+				+						+	+	
	wä	40%	20	0	+	+	+	+	+	+	0	+		-	+	+	+	+	+	+	+	+	+	+	+	0
	wä	40%	40	0	+	+	+	+	+	+		+			+	+	+	+	+	+	+	+	+	+	+	-
	wä	40%	60	-		+	+	+	+	+		+			+	0	0	-	+					+	+	
		TR	20	-	+	0	0	-	+	+	-	0		-	-	-	-	+	+	+	+	+	+	+	+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant



## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1015 acetamide acetic acid amide CH3CONH2 C2H5NO	wä GL	20		+	+	+		+	+				0	-	+	+	+	+	+	+	+	+	+			
		40		+	+	+		+	+				-		+	+	+	+	+	+	+	+	+			
		60		+	+	+		+	+						+	+	+	+	+	+	+	+	+			
		80						+	+									+	+	+	+	+	+			
		100						+	+									+	+	+	+	+	+			
1016 acetic anhydride ethanoic anhydride (CH3CO)2O C4H6O3	TR	20	-	+	+	+	-	+	+		-	+		-	+	-	-	+	+	+	+	+	+	0	+	+
		40		0	0	0		+	+			0						+	+	+	+	+	+		+	+
		60		-	-	-		+	+			-						+	+	+	+	+	+		+	+
		80						+	+									+	+	+	+	+	+		+	+
		100						+	+									+	+	+	+	+	+			
		120						+	+									+	+	+	+	+	+			
1017 acetanilide N-phenylacetamide acetic acid anilide CH3CONHC6H5 C8H9NO	wä GL	20	+					+	+					0	-	0	0	+	+	+	+	+				
		40	+					+	+							0	0	+	+	+	+	+				
		60						+	+							0	0	+	+	+	+	+				
		80						+	+							0	0	+	+	+	+	+				
		100						+	+									+	+	+	+	+				

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1018</b>	<b>acetone</b>																										
	wä	1%	20	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	1%	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	1%	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	1%	80						+	+								+	+					+	+	+	+
	wä	1%	100						+	+								+	+					+	+	+	+
	wä	10%	20	-	+	+	+	+	+	+	-		+		-	+	-	+	+	+	+	+	+	+	+	+	+
	wä	10%	40		+	+	+	+	+	+			+		+		+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60		+	+	+	0	+	+			+		+		+	+	+	+	+	+	+	+	+	+	+
	wä	10%	80						+	+					+		+	+						+	+	+	+
	wä	10%	100						+	+							+	+									
	TR		20	-	+	+	+	-	+	+	-	-	+	-	+	-	+	+	+	+	+	+	+	+	+	+	+
	TR		40		+	+	+		+	+			0		+		+	+	+	+	+	+	+	+	+	+	+
	TR		60		+	+	+		+	+							+	+			+	+	+	+	+	+	+
<b>1020</b>	<b>acetonitrile</b>																										
	ethanenitrile	TR	20	-	+	+	+	+	+	+	-	+	0	-	0	0	0	+	+	+	+	+	+	+	+	+	+
	methyl cyanide	TR	40	-	+	+	+	+	+	+		+	0		0	0	+	+		+	+	+	+	+	+	+	+
	CH3CN	TR	60	-	+	+	+	0	+	+		+	0		0	0		+						+	+	+	+
	C2H3N	TR	80						+	+								+						+	+	+	+
<b>1021</b>	<b>acetophenone</b>																										
	acetylbenzene	TR	20	-	+	+	+	-	+	+	-	+						+	+		+	+	+	+	+	+	+
	methyl phenyl ketone	TR	40			+	+		+	+		+						+	+		+	+	+	+	+	+	+
	C6H5COCH3	TR	60			0	0		+	+		0						+	+		+	+	+	+	+	+	+
	C8H8O	TR	80			-	-		+	+		-						+		+	+	+	+	+	+	+	+
	TR		100						+	+								+						+	+	+	+
	TR		120						+	+														+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1022 2,4-pentanedione  CH3COCH2COCH3 C5H8O2	TR	20	-					+	+	-																
	TR	40	-					+	+																	
	TR	60	-					+	+																	
	TR	80						+	+																	
	TR	100						+	+																	
1023 ethanoic chloride  CH3COCl C2H3ClO P	TR	20	-	0	0	0	-	+	+	-								+	+		+	+				
	TR	40		-	-	-		+	+									+	+		+	+				
	TR	50						+	+									+			+	+				
1024 ethyne  HCCH C2H2	gf	TR, GK	20	+	+	+	+		+	+			+		+	-	+	+	+	+				+	+	+
	gf	TR, GK	40						+	+					+		+	+	+	+				+	+	+
	gf	TR, GK	60						+	+					+		+	+	+	+				+	+	+
	gf	TR, GK	80						+	+																
	gf	TR, GK	100						+	+																
1025 O-acetylsalicylic acid 2-acetyloxybenzoic acid 2-(CH3CO2)C6H4CO2H C9H8O4	wä	GL	20	+	+	+	+		+	+			+					+	+	+	+	+	+	+	+	+
	wä	GL	40		+	+	+		+	+			+					+	+	+	+	+	+	+	+	+
	wä	GL	60		+	+	+		+	+			+					+	+	+	+	+	+	+	+	+
	wä	GL	80						+	+								+	+		+	+	+			+
	wä	GL	100						+	+								+								+
1027 vinyl cyanide  CH2=CHCN C3H3N P	TR	20	-	+	+	+	0	+	+	0		+		-	+	0	0	+	+	+	+	+	+	+	+	+
	TR	40		+	0	0	-	+	+	0		0			+	0	0	+	+		+	+	+	+	+	+
	TR	60		+				+	+					0	-	-		+		+	+	+	+	+	+	+
	TR	80						+	+																	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1028 acrylic acid butyl ester butyl acrylate  CH2=CHCO2(CH2)3CH3 C7H12O2	TR	20	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40	0	0	0	0	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	TR	60					+	+																		
	TR	80					+	+																		
	TR	100					+	+																		
1029 adipic acid butane-1,4-dicarboxylic acid hexanedioic acid HO2C(CH2)4CO2H C6H10O4	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+		+	+		+						+	+		+	+				+
	wä	GL	100						+	+								+		+		+				+
1030 alum potassium aluminium sulfate potassium alum KAl(SO4)2 AlK08S2	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	+	+	+	+	+	+	+		+		-	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	80					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	100					+	+	+					+	+	+	+	+	+	+					
	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	+	+	+	+	+	+	+		+		-	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	100					+	+	+					+	+	+	+	+	+	+					
1031 alkanesulfonic acids (mixtures)  RSO3H	wä	10%	20	+	+	+	+	+	+	+				0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+	+					+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	+				+	+	+						+	+	+		+	+	+	+	+	+	+
	wä	10%	80					+	+	+							+	+		+	+	+	+	+	+	+
	wä	10%	100					+	+								+	+								+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1032	allyl alcohol	TR	20	0	+	+	+	+	+	+	+	-	0	0	0	0	+	+	+	+	+	+	+	+	+	+	+
		TR	40	-	+	+	+	+	+	+	+	+	+	0	0	-	+	+	+	+	+	+	+	+	+	+	+
		TR	60		+	+	+	+	+	+	+	+		0			+	+	+	+	+	+	+	+	+	+	+
		TR	80							+	+							+				+		+	+	+	+
		TR	100							+	+								+			+		+	+	+	+
1033	allyl chloride	TR	20	-	0			+	+	+					-			+	+	+	+	+	+	+	+	+	
		TR	40	-	-			+	+	+								+			+	+	+	+	+	+	
1034	aluminium acetate basic	wä	GL	20	+	+	+	+	+	+	+			+				+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+			+					+	+	+	+	+	+			+
		wä	GL	60					+	+	+								+	+	+	+	+	+			+
		wä	GL	80					+	+	+																+
		wä	GL	100					+	+	+																
1035	aluminium ammonium sulfate	wä	GL	20	+	+	+	+	+	+	+			+	+			+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+			+	+				+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+			+					+	+	+	+	+	+			+
		wä	GL	80					+	+	+								+	+	+	+	+	+			+
		wä	GL	100					+	+									+	+	+						
1036	aluminium chlorate	wä	GL	20	+			+	+	+								+	+	+	+	+				+	
		wä	GL	40				+	+	+									+	+	+	+	+			+	
		wä	GL	60				+	+	+									+		+	+	+				
		wä	GL	80				+	+	+									+								
		wä	GL	100				+	+										+								

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1037  AlCl3	aluminium chloride	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL			0	0	+	+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+
1039  Al2Fe(SO4)4 Al2FeO16S4	aluminium iron(II) sulfate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60		+	+	+	+	+	+	+			+						+	+	+	+	+	+	+	+	+
		80					+	+	+	+									+	+	+	+	+	+	+	+	+
		100							+	+									+	+	+	+	+	+	+	+	+
1040  AlF3	aluminium fluoride	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60		+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+			-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	+
1041  Al2F2(SiO4) Al2F2O4Si	aluminium fluorosilicate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40								+	+																
		60								+	+																
		80								+	+																
		100								+	+																

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1042	aluminium hydroxide	TR	20	+	+	+	+	+	+	+	+																	
		TR	40		+	+	+	+	+	+	+																	
		TR	60		+	+	+	+	+	+	+																	
		TR	80					+	+	+																		
		TR	100					+	+	+																		
Al(OH)3 H3AlO3																												
	1043	aluminium nitrate	wä	GL	20	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+		+		
			wä	GL	40	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	+		+	
			wä	GL	60		+	+	+	+	+			+						+	+	+	+	+	+		+	
			wä	GL	80					+	+	+								+	+	+	+	+	+		+	
wä			GL	100					+	+	+								+	+	+	+	+	+		+		
Al(NO3)3 AlN3O9																												
	1044	aluminium oxide		TR	20	+	+	+	+	+	+				+													
				TR	40					+	+	+																
				TR	60					+	+	+																
				TR	80					+	+	+																
			TR	100					+	+	+																	
alumina Al2O3																												
	1045	aluminium sulfate	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			wä	10%	60	0	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	0	+	+
			wä	10%	80			+	+	+	+		+				+	+	+	+	+	+	+	+	+	+	0	+
wä			10%	100					+	+	+							+	+	+	+	+	+	+	0	+	+	
wä			GL	20	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	
wä			GL	40	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	
wä			GL	60	0	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	0	+	
wä			GL	80			+	+	+	+		+				+	+	+	+	+	+	+	+	+	+	0	+	
wä			GL	100					+	+	+							+	+	+	+	+	+	+	+	0	+	

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1046  (NH4)2Fe(SO4)2 H8FeN2O8S2	ammonium iron(II) sulfate	10%	20	wä	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		10%	40	wä	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		10%	60	wä	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		10%	80	wä			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		10%	100	wä					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	20	wä	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	40	wä	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	60	wä	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	80	wä			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	100	wä					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1047</b> formic acid methanoic acid HCO2H CH2O2 P	wä	10%	20	+	+	+	+	+	+	+	+	-	+	+	0	+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	40	+	+	+	+	+	+	+	+		+	+	-	+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	60	0	+	+	+	+	+	+								+	+		+		+	0	+	+	
	wä	10%	80			+	+	+	+	+								+	+		+		+	-	0	+	
	wä	10%	100					+	+	+								+							0		
	wä	25%	20	+	+	+	+	+	+	+	-	+		-	+	-	+	+	+	+	+	+	+	+	+	+	+
	wä	25%	40	+	+	+	+	+	+	+		+		0		+	+	+	+	+	+	+	+	+	0	+	+
	wä	25%	60	0	+			+	+	+								+	+		+		+	-	0	+	
	wä	25%	80					+	+	+								+	+		+		+		0	+	
	wä	25%	100					+	+	+								+							0		
	wä	50%	20	+	+	+	+	+	+	+	-	+		-	+	-	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	40	+	+	+	+	+	+	+		0	+		0		+	+	+	+	+	+	+	+	0	+	+
	wä	50%	60	0	+	0	0	+	+	+			0					+	+		+		+	-	0	+	
	wä	50%	80					+	+	+						0	+	+		+		+			0	+	
	wä	50%	100					+	+	+								+							0		
	wä	85%	20	+	+	+	+	+	+	+	-	+		-	+	-	+	+	+	+	+	+	+	+	+	+	+
	wä	85%	40	0	+	+	+	+	+	+		+		0		0	+	+		+	+	+	+	+	0	+	+
	fe	TR	20	+	+	+	+	+	+	+	-	0	+		-	0	-	+	+	+	+	+	+	+	+	+	+
	fe	TR	40	0	+	+	+	+	+	+		0	+		0		0	+	+		+	+	+	+	0	+	+
	<b>1048</b> p-aminoazobenzene 4-phenylazoaniline C6H5N=NC6H4NH2 C12H11N3	TR	20	+						+	+																
TR		40	0						+	+																	
TR		60							+	+																	
TR		80							+	+																	
TR		100							+	+																	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1049 PABA  4-(NH2)C6H4CO2H C7H7NO2	4-aminobenzoic acid	GL	20	+	+	+	+	+	+	+	+							+	+	+	+	+	+			+
		GL	40		+	+	+		+	+								+	+	+	+	+	+			+
		GL	60		+	+	+		+	+								+	+	+	+	+	+			+
		GL	80						+	+								+	+	+	+	+	+			+
		GL	100						+	+								+	+	+	+	+	+			+
1050 sulfanilic acid aniline-4-sulfonic acid 4-(NH2)C6H4SO3H C6H7NO3S	4-aminobenzenesulfonic acid	GL	20	+	+	+	+		+	+								+	+	+	+	+	+			+
		GL	40		+	+	+		+	+								+	+	+	+	+	+			+
		GL	60						+	+								+	+	+	+	+	+			+
		GL	80						+	+								+	+	+	+	+	+			+
		GL	100						+	+								+	+	+	+	+	+			+
1051 glycine  NH2CH2CO2H C2H5NO2	aminoacetic acid	10%	20	+	+	+	+	+	+	+	-							+	+	+	+	+	+			+
		10%	40	+	+	+	+	+	+	+	-							0	+	+	+	+	+	+		+
		10%	60		+	+	+	+	+	+									+	+	+	+	+	+		+
		10%	80						+	+	+								+	+	+	+	+	+		+
		10%	100						+	+									+	+	+	+	+			+
1052 aminocarboxylic acids  NH2CH(R)CO2H	amino acids	GL	20	+	+	+	+	+	+	+								+	+	+						+
		GL	40		+	+	+	+	+	+									+	+	+					+
		GL	60						+	+	+								+	+	+					
		GL	80						+	+	+								+	+						
		GL	100						+	+									+	+						
1053  NH3 H3N	ammonia, gaseous	TR, GK	20	+	+	+	+	0	+	+								+	+							+
		TR, GK	40	+	+	+	+	0	+	+								0	+							+
		TR, GK	60	+	+	+	+	0	+	+								-	+							+
		TR, GK	80						+	+																+
		TR, GK	100						+	+																+

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1054</b> ammonia, aqueous solution  ammonium hydroxide  NH3 • xH2O, NH4OH H3N	wä	0,5%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	0,5%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	0,5%	60		+	+	+		+	+		+	+														
	wä	0,5%	80			+	+		+	+		+	+														
	wä	1%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	1%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	1%	60		+	+	+		+	+		+	+														
	wä	1%	80			+	+		+	+		+	+														
	wä	10%	20	+	+	+	+	0	+	+		+	+		+	+	-	-	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	0	+	+		+	+	0	+												
	wä	25%	20	+	+	+	+	-	+	+		+	+		+	+	-	-	+	+	+	+	+	+	+	+	+
	wä	25%	40	+	+	+	+		+	+		+	+	0	+												
<b>1055</b> ammonium metatungstate  (NH4)6H2W12O40 H26N6O40W12		TR	20	+	+	+	+	+	+	+																	
		TR	40						+	+																	
		TR	60						+	+																	
		TR	80						+	+																	
		TR	100						+	+																	
		TR	120						+	+																	
<b>1056</b> ammonium acetate  CH3CO2NH4 C2H7NO2	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	60	0	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	80			+	+	+	+	+	+	+	0					+	+	+	+	+	+	+	+	+	
	wä	GL	100			+	+	+	+	+	+	+						+	+	+	+	+	+	+	+	+	

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Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
<b>1057</b> ammonium benzoate benzoic acid ammonium salt C6H5CO2NH4 C7H9NO2	wä	GL	20		+	+	+	+	+	+	+								+	+	+	+	+	+	+	+	+		
	wä	GL	40		+	+	+	+	+	+									+	+	+	+	+	+	+	+	+		
	wä	GL	60																+	+	+	+	+	+	+	+	+		
	wä	GL	80																+	+	+	+	+	+	+	+	+		
	wä	GL	100																+	+	+	+	+	+	+	+	+		
<b>1058</b> ammonium bromide NH4Br H4BrN	wä	GL	20	+	+	+	+	+	+	+									+	+	+	+	+	+	+	+	+		
	wä	GL	40	+	+	+	+	+	+	+									+	+	+	+	+	+	+	+	+		
	wä	GL	60		+	+	+	+	+	+									+	+	+	+	+	+	+	+	+		
	wä	GL	80			+	+	+	+	+									+	+	+	+	+	+	+	+	+		
	wä	GL	100						+	+	+								+	+	+	+	+	+	+	+	+		
<b>1059</b> ammonium carbonate (NH4)2CO3 CH8N2O3	wä	GL	20	+	+	+	+	+	+	+									+	+	+	+	+	+	+	+	+		
	wä	GL	40	+	+	+	+												+	+	+	+	+	+	+	+	+		
	wä	GL	60	0															+	0	0	+	+	+	+	+	+		
	wä	GL	80																+	+							+		
	wä	GL	100																+	+							+		
<b>1060</b> ammonium chloride NH4Cl H4ClN	wä	27% (GL)	20	+	+	+	+	+	+	+									+	+	+	+	+	+	+	0	+	+	
	wä	27% (GL)	40	+	+	+	+	+	+	+									+	+	+	+	+	+	+	0	+	+	
	wä	27% (GL)	60	0	+	+	+	+	+	+									+	+	+	+	+	+	+	0	+	+	
	wä	27% (GL)	80			+	+	+	+	+									+	+	+	+	+	+	+	+	-	+	+
	wä	27% (GL)	100			+	+	+	+	+									+	+	+	+	+	+	+	0	0		
<b>1061</b> ammonium citrate triammonium citrate citric acid triammonium salt H4NO2CCH2C(OH)(CO2NH4)CH2CO2NH4 C6H17N3O7		TR	20	+				+	+	+																			
		TR	40	+				+	+	+																			
		TR	60	0				+	+	+																			
		TR	80					+	+	+																			
		TR	100						+	+																			

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537														
1062  (NH <sub>4</sub> ) <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> H <sub>8</sub> Cr <sub>2</sub> N <sub>2</sub> O <sub>7</sub>	ammonium dichromate	wä	GL	20	+	+	+	+	+	+	+										+	+	+	+	+	+	+													
		wä	GL	40																		+	+	+	+	+	+	+												
		wä	GL	60																			+	+	+	+	+	+												
		wä	GL	80																				+	+	+	+	+												
		wä	GL	100																																				
1063  NH <sub>4</sub> F H <sub>4</sub> FN	ammonium fluoride	wä	GL	20	+	+	+	+	+	+	+																										+			
		wä	GL	40	+	+	+	+	+	+	+																											+		
		wä	GL	60		+	+	+	+	+	+																											+		
		wä	GL	80			+		+	+	+																											+		
		wä	GL	100					+	+	+																													
1064  (NH <sub>4</sub> ) <sub>2</sub> SiF <sub>6</sub> H <sub>8</sub> F <sub>6</sub> N <sub>2</sub> Si	ammonium hexafluorosilicate	wä	GL	20	+	+	+	+	+	+	+																											+		
		wä	GL	40		+	+	+	+	+	+																												+	
		wä	GL	60					+	+	+																												+	
		wä	GL	80					+	+	+																													+
		wä	GL	100					+	+	+																													+
1065  formic acid ammonium salt  HCO <sub>2</sub> NH <sub>4</sub> CH <sub>5</sub> NO <sub>2</sub>	ammonium formate	wä	GL	20	+	+	+	+	+	+	+																												+	
		wä	GL	40		+	+	+	+	+	+																												+	
		wä	GL	60					+	+	+																													+
		wä	GL	80					+	+	+																													+
		wä	GL	100					+	+	+																													+
1066  ammonium bicarbonate  NH <sub>4</sub> HCO <sub>3</sub> CH <sub>5</sub> NO <sub>3</sub>	ammonium hydrogencarbonate	wä	GL	20	+	+	+	+		+	+																												+	
		wä	GL	40	+	+	+	+		+	+																													+
		wä	GL	60		+	+	+		+	+																													+

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Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1067</b> ammonium hydrogensulfate  (NH4)HSO4 H5NO4S	GL	20	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+
	GL	40	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+
	GL	60				+	+	+	+	+				0	+	+	+	+	+	+	+	+	+	+	+	+
	GL	80					+	+	+	+					+	+	+	+	+	+	+	+	+	+	+	+
	GI	100							+	+								+	+	+	+	+	+	+	+	+
<b>1068</b> ammonium bisulfide  (NH4)HS H5NS	VL	20	+	+	+	+	+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+
	VL	40	+				+	+	+					+	+	0	0	+	+	+	+	+	+	+	+	+
	VL	60	+				+	+	+					+	+	0	0	+	+	+	+	+	+	+	+	+
	VL	80					+	+	+							-	-	+	+	+	+	+	+	+	+	+
	VL	100					+	+	+									+	+	+	+	+	+	+	+	+
<b>1069</b> ammonium heptamolybdate  (NH4)6Mo7O24 H24Mo7N6O24	GL	20	+	+	+	+		+	+					+	+	+	+	+	+	+	+	+	+	+	+	+
	GL	40		+	+	+		+	+					+	+	+	+	+	+	+	+	+	+	+	+	+
	GL	60						+	+									+	+	+	+	+	+	+	+	+
	GL	80						+	+									+	+	+	+	+	+	+	+	+
	GL	100						+	+																	

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1070  NH4NO3 H4N2O3	ammonium nitrate	wä 10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	60	0	0	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	80			0	0	+	+	+	+	+	0		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	100					+	+	+	+							+	+	+	+	+					+	
		wä 50%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 50%	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 50%	60	0	0	+	+	+	+	+	+	+	+	0		+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 50%	80					+	+	+	+			0		+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 50%	100							+	+			-				+	+	+	+	+	+			+	+	+
		wä GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL	60	0	0	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL	80			0	0	+	+	+	+	+	0			+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL	100					+	+	+	+							+	+	+	+	+	+			+	+	+
1071  oxalic acid diammonium salt  (NH4)2C2O4 C2H8N2O4	ammonium oxalate	wä GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä GL	40		+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+		
		wä GL	60					+	+	+								+	+	+	+		+				+	
		wä GL	80					+	+	+								+	+	+	+						+	
		wä GL	100					+	+	+								+	+	+	+						+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1072</b> ammonium persulfate  (NH4)2S2O8 H8N2O8S2	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	60	+				+	+	+								+	+	+	+	+	+			
	wä	VL	80					+	+	+								+	+	+	+	+	+			
	wä	VL	100					+	+	+								+	+	+	+	+	+			
	wä	GL	20	+	+	+	+	+	+	+						+	+	+	+	+	+	+	+			
	wä	GL	40	+	+	+	+	+	+	+						+	+	+	+	+	+	+	+			
	wä	GL	60					+	+	+								+	+	+	+	+	+			
	wä	GL	80					+	+	+								+	+	+	+	+	+			
	wä	GL	100					+	+	+								+	+	+	+	+	+			
<b>1073</b> ammonium hydrogenphosphate  (NH4)2HPO4 H9N2O4P	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	+	+	+	+	+	+	+		+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+			+
	wä	GL	100			+	+	+	+	+		+	+		+	+	+	+	+	+	+	+				+
<b>1074</b> ammonium thiocyanate ammonium rhodanide  NH4SCN CH4N2S	wä	GL	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+	
	wä	GL	40		+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+	
	wä	GL	60		+	+	+	+	+	+		+						+	+	+	+	+			+	
	wä	GL	80					+	+	+								+	+	+	+	+				
	wä	GL	100					+	+	+								+	+	+	+	+				
<b>1075</b> ammonium sulfamate sulfamic acid ammonium salt  NH2SO3NH4 H6N2O3S	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+				
	wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+				
	wä	GL	60		+	+	+		+	+		+	+		+			+	+	+	+	+				
	wä	GL	80			+	+		+	+		+	+		+			+	+	+	+	+				
	wä	GL	100						+	+								+	+							

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## Chemical Resistance

Release Date: 2023-04-24

		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1076	ammonium sulfate  (NH4)2SO4 H8N2O4S	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	10%	60	0	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	0	+	+	+	
		wä	10%	80			+	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	0	+	+	+	
		wä	10%	100						+	+	+							+	+	+	+	+	+		+	0	+	+	+	
		wä	43% (GL)	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	43% (GL)	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	43% (GL)	60	0	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	0	+	+	+
		wä	43% (GL)	80			+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	0	+	+	+
		wä	43% (GL)	100						+	+	+							+	+	+	+	+	+	+	+	0	+	+	+	+

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1077  (NH4)2S H8N2S	ammonium sulfide	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
		80			+				+	+								+	+		+		+				
		100							+	+								+	+								
		20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
		80			+				+	+								+	+		+		+				
		100							+	+								+	+								
		20	+	+	+	+	+	+	+	+	-	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	-	+		+	+	0	0	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+		+		+	+	-	-	+	+	+	+	+	+	+	+	+	+
		80							+	+								+	+		+		+				
		100							+	+								+	+				+				
		GL	+	+	+	+	+	+	+	+	-	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	+	+	+	+	+	+	+	+	-	+		+	+	0	0	+	+	+	+	+	+	+	+	+	+
		GL	0	+	+	+	+	+	+	+		+		+	+	-	-	+	+	+	+	+	+	+	+	+	+
		GL							+	+								+	+		+		+				
		GL							+	+								+	+				+				
1078  1-pentyl acetate acetic acid amyl ester CH3CO2C5H11 C7H14O2	amyl acetate	TR	20	-	+	0	0		+	+			0		-	0	0	0	+	+		+	+	+	+	+	
		TR	40	-	+	-	-		+	+			-		-	-	-	-	+	+		+	+	+	+	+	
		TR	60	-	+	-	-		+	+			-		-	-	-	-	+	+		+	+	+	+	+	
		TR	80						+	+									+			+	+	+	+	+	
		TR	100						+	+									+			+	+	+	+	+	
		TR	120						+	+									+			+	+	+	+	+	

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1079 1-pentanol amyl alcohol CH3(CH2)4OH C5H12O	TR	20	+	+	+	+	+	+	+	+	+					+	+	+	+	+	+	+	+	+	+	+
	TR	40	+	+	+	+	+	+	+	0	+				+	+	+	+	+	+	+	+	+	+	+	+
	TR	60	0				+	+	+	0							+	+	+	+	+	+	+	+	+	+
	TR	80					+	+	+								+	+	+	+	+	+	+	+	+	+
	TR	100					+	+	+								+	+	+	+	+	+	+	+	+	+
	TR	120					0	+	+									+	+	+	+	+	+	+	+	+
1080 amyl chloride 1-chloropentane 1-pentyl chloride CH3(CH2)4Cl C5H11Cl	TR	20	-	0			+	+	+					-			+	+	+	+	+	+	+	+	+	+
	TR	40	-	-			+	+	+								+	+	+	+	+	+	+	+	+	+
	TR	60	-				+	+	+								+	+	+	+	+	+	+	+	+	+
	TR	80					+	+	+								+	+	+	+	+	+	+	+	+	+
	TR	100					+	+	+								+	+	+	+	+	+	+	+	+	+
1081 amyl laurate dodecanoic acid pentyl ester lauric acid amyl ester CH3(CH2)10CO2C5H11 C17H34O2	TR	20	-					+	+								+	+	+	+	+	+	+	+	+	+
	TR	40						+	+								+	+	+	+	+	+	+	+	+	+
	TR	60						+	+								+	+	+	+	+	+	+	+	+	+
	TR	80						+	+								+	+	+	+	+	+	+	+	+	+
	TR	100						+	+								+	+	+	+	+	+	+	+	+	+
	TR	120						+	+								+	+	+	+	+	+	+	+	+	+
1082 p-tert-amyl phenol 4-(2-methyl-2-butyl)phenol CH3CH2C(CH3)2C6H4OH C11H16O	TR	20	-				-	+	+																	
	TR	40	-					+	+																	
	TR	60	-					+	+																	
	TR	80						+	+																	
	TR	100						+	+																	
	TR	120						+	+																	

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		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
<b>1083</b>	<b>aniline</b>	wä	GL	20	-	0	0	0	+	+	+	-	-	0		0	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40		0	0	0	+	+	+			0			-	+	0	0	+	+	+	+	+	+	+	+	+	
		wä	GL	60						+	+								-	-	+	+	+	+	+	+	+	+	+	
		wä	GL	80							+	+									+	+	+	+	+	+	+	+	+	
		wä	GL	100							+	+										+	+	+	+	+	+	+	+	
			TR	20		-	0	0	0	+	+	+			-	0		-	-	+	+	+	+	+	+	+	+	+	+	+
			TR	40			0	0	0	0	+	+				0				0	0	+	+	+	+	+	+	+	+	+
			TR	60							+	+								-	-	+	+	+	+	+	+	+	+	+
			TR	80							+	+										+	+	+	+	+	+	+	+	+
			TR	100							+	+											+	+	+	+	+	+	+	+
	TR	120							+	+											+	+	+	+	+	+	+	+		
<b>1084</b>	<b>aniline sulfate</b>		TR	20	-					+	+																			
			TR	40						+	+																			
			TR	60						+	+																			
			TR	80						+	+																			
			TR	100						+	+																			
<b>1085</b>	<b>aniline sulfite</b>		TR	20	+					+	+																			
			TR	40						+	+																			
			TR	60						+	+																			
			TR	80						+	+																			
			TR	100						+	+																			

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1086</b> p-anisaldehyde 4-methoxybenzaldehyde CH3OC6H4CHO C8H8O2	TR	20	-						+	+								+	+	+	+	+	+	+	+	+	+
	TR	40	-						+	+								+	+	+	+	+	+	+	+	+	+
	TR	60	-						+	+								+	+	+	+	+	+	+	+	+	+
	TR	80							+	+								+	+	+	+	+	+	+	+	+	+
	TR	100							+	+								+	+	+	+	+	+	+	+	+	+
<b>1087</b> anisole methoxybenzene methyl phenyl ether C6H5OCH3 C7H8O	TR	20	-	0	0	0			+	+		-	0		-	-	-	-	+	+	+	+	+	+	+	+	+
	TR	40		-	-	-			+	+		-							+	+	+	+	+	+	+	+	+
	TR	60							+	+									+	+	+	+	+	+	+	+	+
	TR	80							+	+									+	+	+	+	+	+	+	+	+
	TR	100							+	+									+	+	+	+	+	+	+	+	+
	TR	120							+	+									+	+	+	+	+	+	+	+	+
<b>1088</b> anise oil		20		0					+	+																	
		40		0					+	+																	
		60		-					+	+																	
		80							+	+																	
		100							+	+																	
<b>1089</b> sodium thiosulfate Na2S2O3 Na2O3S2	wä	40% (GL)	20	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	40% (GL)	40	+	+	+	+	+	+	+				+	+	0	+	+	+	+	+	+	+	+	+	+	+
	wä	40% (GL)	60	0	+	+	+	+	+	+				+		-	+	+	+	+	+	+	+	+	+	+	+
	wä	40% (GL)	80						+	+	+							+	+	+	+	+	+	+	+	+	+
	wä	40% (GL)	100						+	+	+							+	+	+	+	+	+	+	+	+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1090 benzaldehyde oxime  C6H5CH=NOH C7H7NO	wä	2%	20	+	+	+	+	+	+					0	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	2%	40			+	+	+	+										+	+	+	+	+	+	+	+	
	wä	2%	60			+	+	+	+										+	+	+	+	+	+	+	+	
	wä	2%	80						+	+									+	+	+	+	+	+	+	+	
	wä	2%	100						+	+									+	+	+	+	+	+	+	+	
1091 antimony pentachloride  antimony(V) chloride  SbCl5 Cl5Sb		TR	20	-	0	0	-	+	+	+	-	-	0	-	-				+	+					-	-	+
		TR	40		-	-		+	+	+			-						+	+							
		TR	60					+	+	+									+								
		TR	70					+	+	+																	
1092 antimony trichloride  antimony(III) chloride  SbCl3 Cl3Sb	wä	90%	20	+	+	+		+	+	+	-	+	+		+	+	+	+							-	-	
	wä	90%	40	+	+	+		+	+	+		+	+		+	+	+	+									
	wä	90%	60	+	+	+		+	+	+		+	+		+	+	+	+									
	wä	90%	80					+	+																		
	wä	90%	100					+	+																		
1093 malic acid  hydroxysuccinic acid hydroxybutanedioic acid HO2CCH2CH(OH)CO2H C4H6O5	wä	GL	20	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	40		+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	60		+	+	+	+	+	+		+			+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	80					+	+	+									+	+	+	+	+	+	+	+	
	wä	GL	100					+	+	+									+	+	+	+	+	+	+	+	
1094 arsenious acid  H3AsO3 H3AsO3	wä	VL	20	+				+	+	+								+	+	+	+	+	+			+	
	wä	VL	40					+	+									+	+	+	+	+	+			+	
	wä	VL	60					+	+									+	+	+	+	+	+			+	
	wä	VL	80					+	+									+	+	+	+	+	+			+	
	wä	VL	100					+	+									+	+	+	+	+	+			+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1095 arsenic acid  H3AsO4 H3AsO4	wä	80%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	80%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	80%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	80%	80	-		+		+	+	+			0		+	+	+	+	+	+	+	+	+		+	+
	wä	80%	100			0		+	+	+		0				+	+	+	+	+	+	+			+	+
	wä	80%	120							+	+															
1096 arsenic sulfides  As4Sx (x = 3,4,5,6,10) As4Sx	TR		20	+				+	+	+																
	TR		40					+	+	+																
	TR		60					+	+	+																
	TR		80					+	+	+																
	TR		100					+	+	+																
	TR		120							+	+															
1097 arsenic trioxide arsenic(III) oxide arsenious acid anhydride  As2O3	TR		20	+				+	+	+																
	TR		40					+	+	+																
	TR		60					+	+	+																
	TR		80					+	+	+																
	TR		100					+	+	+																
	TR		120							+	+															
1098 L(+)-ascorbic acid vitamin C  C6H8O6	wä	24% (GL)	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+		+	
	wä	24% (GL)	40	+	+	+	+	+	+	+			+	+			+	+	+	+	+	+	+		+	
	wä	24% (GL)	60	0		+	+		+	+			+	+			+	+	+	+	+	+	+		+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1099	ammonium dihydrogenphosphate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60		+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+							+	+								
NH4H2PO4 H6NO4P																											
1100	barium carbonate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80					+	+	+			-	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+							+	+							+	
BaCO3 CBaO3																											
1101	barium chloride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	0	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80			+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+							+	+	+	+	+	+	+	+	+	
BaCl2																											
1102	barium cyanide	wä	GL	20	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+		+	+	+	+	0	+	0	0	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+			+	+		+	-	+	-	-	+	+	+	+	+	+	+	+	+	
		wä	GL	80					+	+								+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+								+	+	+	+	+	+	+	+	+	
Ba(CN)2 C2BaN2																											
1103	barium hydroxide	wä	GL	20	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	-	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	0	+	+		-	+	+	+	+	+	0	0	+	+	+	+	0	0	+	+	+	+	
		wä	GL	80			+	-	-	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+								+	+	+	+	+	+	+	+	+	
Ba(OH)2 H2BaO2																											

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1104 Ba(NO3)2 BaN2O6	barium nitrate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80						+	+				0	+	+	+	+	+	+	+	+	+		
		wä	GL	100						+	+							+	+	+	+					
1105 BaO2	barium peroxide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80						+	+				+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100						+	+							+	+	+	+	+	+	+	+	+
1106 baryta white BaSO4 BaO4S	barium sulfate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+							+	+	+	+	+	+	+	+	+
1107 BaS	barium sulfide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		wä	GL	80						+	+				+			+	+	+	+	+	+	+	+	+
		wä	GL	100						+	+						+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1110</b> benzal chloride benzylidene chloride a,a-dichlorotoluene C6H5CHCl2 C7H6Cl2	TR	20	-					+	+	-	-							+	+		+	+	+	+	+	
	TR	40	-					+	+									+	+		+	+	+	+	+	
	TR	60	-					+	+									+	+		+	+	+	+	+	
	TR	80						+	+										+		+	+	+	+	+	
	TR	100						+	+										+		+	+	+	+	+	
	TR	120						+	+										+		+	+	+	+	+	
<b>1111</b> benzaldehyde C6H5CHO C7H6O	wä	GL	20	-	+	+	+	+	+		-	+	0		+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	40	-	+	+	+	+	+			+	0		+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	60	-	+	0	0		+	+		0	0		+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	80						+	+								+	+	+	+	+	+	+	+	
	wä	GL	100						+	+								+	+	+	+			+	+	
<b>1112</b> benzamide benzoic acid amide C6H5CONH2 C7H7NO	wä	GL	20	+	+	+	+		+	+		+						+	+	+	+	+	+	+	+	
	wä	GL	40	+	+	+	+		+	+		+						+	+	+	+	+	+	+	+	
	wä	GL	60	0	+	+	+		+	+		+						+	+	+	+	+	+	+	+	
	wä	GL	80						+	+								+	+	+	+	+	+	+	+	
	wä	GL	100						+	+								+	+	+	+			+	+	
<b>1113</b> gasoline, free of lead and aromatics C5H12 bis C12H26 P			20	+	+	0	0	+	+	+	+	0		+	-	+	+	+	+	+	+	+	+	+	+	
			40	+	+	0	0	+	+	+	+	0		+		+	+	+	+	+	+	+	+	+	+	
			60	+	0	-	-	+	+	+		-				+	+	+	+	+	+	+	+	+	+	
			80			-	-	+	+	+		-						+	+	+	+	+	+	+	+	
			100					+	+	+								+	+	+	+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1114	gasoline, Super	20	+	+	0	0	+	+	+	+	0	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	0	0	+	+	+	+	0	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	0	-	-	+	+	+	+	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1115	petrol-benzene mixture	20	-	0	0	0	+	+	+	-	0	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	-	-	-	-	+	+	+	-	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	-	-	-	-	+	+	+	-	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		120	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1116	benzoic acid benzenecarboxylic acid phenylformic acid C6H5CO2H C7H6O2	wä GL	20	+	+	+	+	+	+	-	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL	40	+	+	+	+	+	+	-	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL	100	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+
1117	benzene C6H6	TR	20	-	0	0	0	+	+	+	-	0	0	0	-	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	40	+	-	-	-	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	60	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	80	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1118</b> benzoic anhydride  (C6H5CO)2O C14H10O3	TR	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40			+	+		+	+	+	+															
	TR	60			+	+		+	+	+	+															
	TR	80							+	+	+															
	TR	100							+	+	+															
<b>1119</b> benzoic acid sodium salt  C6H5CO2Na C7H5NaO2	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+				0	0	0	+	+	+	+	+	+				+
	wä	GL	100					0	+	+							+	+	+	+	+					+
<b>1120</b> benzenesulfonic acid phenylsulfonic acid  C6H5SO3H C6H6O3S	wä	10%	20	+	+	+	+	+	+	+		+	0				+	+	+	+	+	+				+
	wä	10%	40	+	+	+	+	+	+	+		+	-				+	+	+	+	+	+				+
	wä	10%	60	+	+	+	+		+	+		+					+	+	+	+	+	+				
	wä	10%	80						+	+							+	+	+	+	+	+				
	wä	10%	100						+	+							+									
	wä	40%	20	+	+	+	+	+	+	+		+	0				+	+	+	+	+	+				+
	wä	40%	40	+	+	+	+	+	+	+		+	-				+	+	+	+	+	+				+
	wä	40%	60	+	+	+	+		+	+		+					+	+	+	+	+	+				
	wä	40%	80						+	+							+	+	+	+	+	+				
	wä	40%	100						+	+							+									
	wä	GL	20		+	+	+	+	+	+		+	0				+	+	+	+	+	+				+
	wä	GL	40		+	+	+	+	+	+		+	-				+	+	+	+	+	+				+
	wä	GL	60		+	+	+		+	+		+					+	+	+	+	+	+				
	wä	GL	80						+	+							+	+	+	+	+	+				
	wä	GL	100						+	+							+									

**Abbreviations:** P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution  
 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1121 benzoyl chloride benzoic acid chloride C6H5COCl C7H5ClO	TR	20	-	0	0	0	+	+	+	-	0						+	+	+	+	+	+			+	
	TR	40	-	0				+	+								+	+	+	+	+	+			+	
	TR	60	-	0				+	+								+	+	+	+	+	+			+	
	TR	80						+	+								+	+	+	+	+	+			+	
	TR	100						+	+								+	+	+	+	+	+			+	
	TR	120						+	+																	
1122 benzyl alcohol C6H5CH2OH C7H8O	TR	20	0	+	+	+	+	+	+	-	+	-	0	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40	-	+	+	+	+	+	+		+						+	+	+	+	+	+	+	+	+	+
	TR	60		+	0	0	+	+	+		0						+	+	+	+	+	+	+	+	+	+
	TR	80					+	+	+								+	+	+	+	+	+	+	+	+	+
	TR	100					0	+	+								+	+	+	+	+	+	+	+	+	+
	TR	120						+	+								+	+	+	+	+	+	+	+	+	+
1123 benzyl chloride a-chlorotoluene C6H5CH2Cl C7H7Cl	TR	20	-	-	-	-	+	+	+	-	-	-	-	-			+	+	+	+	+	+	+	+	+	+
	TR	40					+	+	+								+	+	+	+	+	+	+	+	+	+
	TR	60					0	+	+								+	+	+	+	+	+	+	+	+	+
	TR	80					0	+	+								+	+	+	+	+	+	+	+	+	+
	TR	100						+	+								+	+	+	+	+	+	+	+	+	+
	TR	120						+	+								+	+	+	+	+	+	+	+	+	+
1124 N-benzyl-N-ethylaniline N-ethyl-N-phenylbenzylamine N-benzyl-N-ethylphenylamine C6H5CH2N(C6H5)C2H5 C15H17N	TR	20	-	-	-	-		+	+		-															
	TR	40						+	+																	
	TR	60						+	+																	
	TR	80						+	+																	
	TR	100						+	+																	
	TR	120						+	+																	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1125	succinic acid butanedioic acid ethane-1,2-dicarboxylic acid HO2CCH2CH2CO2H C4H6O4	20	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80																										
		100																										
1126	beryllium chloride BeCl2	20	+	+	+	+			+	+					+	+	+	+	+	+	+	+	+			+		
		40	+	+	+	+			+	+					+	+	+	+	+	+	+	+	+			+		
		60		+	+	+			+	+									+	+	+	+	+	+			+	
		80							+	+									+	+	+	+	+	+			+	
		100							+	+									+	+	+	+	+	+			+	
1127	beryllium fluoride BeF2	20	+	+	+	+			+	+								+	+	+	+	+	+			+		
		40							+	+									+	+	+	+	+	+			+	
		60							+	+									+	+	+	+	+	+			+	
		80							+	+									+	+	+	+	+	+			+	
		100							+	+									+	+	+	+	+	+			+	
1128	beryllium sulfate BeSO4 BeO4S	20	+	+	+	+	+	+	+	+					+	+	+	+										
		40	+	+	+	+	+	+	+	+					+	+	+	+										
		60	+	+	+	+	+	+	+	+					+	+	+	+										
		80			+	+	+	+	+	+					+	+	+	+										
		100						+	+	+								+										
1129	beer	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		100							+	+								+	+	+	+	+	+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																												
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537					
<b>1130</b>	beer colour	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		80																													
		100																													
		120																													
<b>1132</b>	hydrogen cyanide hydrocyanic acid HCN CHN	gf TR, GK 20	+	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		gf TR, GK 40	+	+	+	+	+	+	+	+	+	+	-	-	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+		
		gf TR, GK 60	0	+	+	+	+	+	+	+	+	+																			
		gf TR, GK 80																													
		gf TR, GK 100																													
		gf TR, GK 120																													
<b>1133</b>	lead(II) acetate  (CH3COO)2Pb C4H6O4Pb	wä 10% 20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		wä 10% 40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä 10% 60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä 10% 80																													
		wä 10% 100																													
		wä GL 20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 80																													
		wä GL 100																													

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1134 lead(II) hydrogenarsenate lead arsenate PbHAsO4 HAsPbO4	wä	GL	20	+	+	+	+		+	+											+	+	+			
	wä	GL	40						+	+											+	+	+			
	wä	GL	60						+	+											+	+	+			
	wä	GL	80						+	+																
	wä	GL	100						+	+																
1135 lead(II) carbonate PbCO3 CO3Pb	wä	GL	20	+	+	+	+		+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	40	+	+	+	+		+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	60		+	+	+		+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	80						+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	100						+	+						+	+	+	+	+	+	+	+			+
1137 lead(II) chloride PbCl2 Cl2Pb	wä	GL	20	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	40	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	60		+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	80			+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	100					+	+	+						+	+	+	+	+	+	+	+			+
1138 lead(II) nitrate Pb(NO3)2 N2O6Pb	wä	GL	20	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	40	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	60	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	80					+	+	+						+	+	+	+	+	+	+	+			+
	wä	GL	100					+	+	+						+	+	+	+	+	+	+	+			+
1139 lead(II) sulfate PbSO4 O4PbS	wä	GL	20	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	40	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	60	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	80			+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
	wä	GL	100					+	+	+						+	+	+	+	+	+	+	+			+

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## Chemical Resistance

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		Condition	Concentration	Temperature [°C]	Material																								
1142	boric acid				PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
H3BO3	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		VL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		VL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		VL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		VL	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		GL	20	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		GL	40	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		GL	60	0	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	80			+	+			+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	
		GL	100					+	+		+				+	+	+	+	+	+	+			+	+	+			
<b>1143 boron trichloride</b>																													
trichloroborane	gf	TR, GK	20	+					+	+								+											
		TR, GK	40						+	+								+											
		TR, GK	60						+	+								+											
		TR, GK	80						+	+																			
		TR, GK	100						+	+																			
BCl3	P																												
<b>1144 boron trifluoride</b>																													
trifluoroborane	gf	TR, GK	20	+	+			+	+	+								+											
		TR, GK	40	+	+			+	+	+								+											
		TR, GK	60		-			+	+	+								+											
		TR, GK	80					+	+	+																			
		TR, GK	100					+	+	+																			
BF3	P																												
<b>1145 1-bromo-2-chloroethane</b>																													
CICH2CH2Br C2H4BrCl		TR	20	-	-	-	-	+	+	+								+	+		+	+	+	+	+	+	+		
		TR	40					+	+									+	+		+	+	+	+	+	+	+		
		TR	60					+	+									+	+		+	+	+	+	+	+	+		
		TR	80					+	+									+			+	+	+	+	+	+	+		
		TR	100					+	+									+			+	+	+	+	+	+	+		

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## Chemical Resistance

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Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1147 ethyl bromide  CH3CH2Br C2H5Br	bromoethane	TR	20	-	0	-	-	+	+	+	-	-	-	-	-	+	+	+	+	-	+	+	+	+	+	+	+		
		TR	40	-	0	-	-	+	+	+	-	-	-	-	-	+	+	+	+	-	+	+	+	+	+	+	+		
1148 Br2	bromine	gf	TR, GK	20	-	-	-	-	+	+	+	-	-	-	-	-	+	+	+	+	-	+	+	+	+	-	-	-	
		gf	TR, GK	40					+	+	+								+	+			+	+	+				
		gf	TR, GK	60					+	+	+									+			+	+	+				
		gf	TR, GK	80					+	+	+												+	+	+				
		gf	TR, GK	100					0	+	+												+	+	+				
		wä	GL	20	+	-	-	-	+	+	+	-	-	-	-	-	+	+	+	+	-	+	+	+	+				
		wä	GL	40	0				+	+	+						+	+	+	+		+	+	+	+				
		wä	GL	60	-				+	+	+						+	+	+	+		+	+	+	+				
		fl	TR	20	-	-	-	-	+	+	+	-	-	-	-	-	+	+	+	+	-	+		+		-	-	-	
		fl	TR	40					+	+	+												+	+	+				
1149 tribromomethane  CHBr3	bromoform	TR	20	-	-	-	-	-	+	+																			
		TR	40						+	+																			
		TR	60						+	+																			
		TR	80						+	+																			
		TR	100						+	+																			
		TR	120						+	+																			

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1151 HBr	hydrobromic acid	wä 10%	20	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	-	-		
		wä 10%	40	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	60	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	80	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	100	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 48%	20	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	-	-	
		wä 48%	40	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 48%	60	+	+	0	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 48%	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 48%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1152 CH2=CHCH=CH2 C4H6	1,3-butadiene	gf TR, GK	20	+	0	0	0	+	+	+	+	+	0	-	-	0	0	+	+	+	+	+	+	+	+	+	
		gf TR, GK	40	+	-	-	-	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf TR, GK	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf TR, GK	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		gf TR, GK	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1153 tetramethylene glycol HO(CH2)4OH C4H10O2	1,4-butanediol	wä 10%	20	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	40	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	60	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	20	0	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	40	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1154	butane	gf	TR, GK	20	+	+	+	+	+	+	+			+		+	-	+	+	+	+	+			+	+	+	+	
		gf	TR, GK	40			+	+	+	+	+			+							+	+				+	+	+	+
		gf	TR, GK	60			+	+	+	+	+			+							+	+				+	+	+	+
		gf	TR, GK	80						+	+										+	+				+	+	+	+
		gf	TR, GK	100						+	+										+	+				+	+	+	+
C4H10																													
1155	1-butanol		TR	20	+	+	+	+	+	+	+	-	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	
			TR	40	+	+	+	+	+	+	+			+		+	+			+	+	+	+	+	+	+	+	+	+
			TR	60	0	+	0	0	+	+	+			0		-	+				+	+	+	+	+	+	+	+	+
			TR	80			0	0	+	+	+			0				0			+	+	+	+	+	+	+	+	+
			TR	100					0	+	+										+	+	+	+	+	+	+	+	+
butyl alcohol																													
CH3(CH2)3OH																													
C4H10O																													
1156	1-butanethiol		TR	20	+	0	+	+	+	+	+			+		+	+	+	+		+	+	+	+	+	+	+	+	
			TR	40	+	0	0	0	+	+	+			0		+	+	+	+		+	+	+	+	+	+	+	+	
			TR	60	+	-			+	+	+					+	0	0	0		+	+	+	+	+	+	+	+	+
			TR	80					+	+	+										+	+	+	+	+	+	+	+	+
			TR	100						+	+										+	+	+	+	+	+	+	+	+
1-butyl mercaptan																													
CH3(CH2)3SH																													
C4H10S																													
1157	1-butene	gf	TR, GK	20	+	-	-	-	+	+	+			-		+	0	+	+							+	+	+	
		gf	TR, GK	40		-	-	-	+	+	+			-												+	+	+	
		gf	TR, GK	60			-	-	+	+	+			-												+	+	+	
		gf	TR, GK	80			-	-	+	+	+			-												+	+	+	
		gf	TR, GK	100			-	-	+	+	+			-												+	+	+	
butylene																													
CH3CH2CH=CH2																													
C4H8																													
1158	1-butyne	gf	TR, GK	20		+				+	+							-											
		gf	TR, GK	40		+				+	+																		
		gf	TR, GK	60						+	+																		
		gf	TR, GK	80						+	+																		
		gf	TR, GK	100						+	+																		
CH3CH2CCH																													
C4H6																													

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1159</b> butyric acid butanoic acid CH3CH2CH2CO2H C4H8O2	wä	20%	20	+	+	+	+	+	+			+		-	+	0	0	+	+	+	+	+	+	+	+	+	
	wä	20%	40	0	+		+	+	+									+	+	+	+	+	+	+	+	+	
	wä	20%	60	-	0		+	+	+									+	+	+	+	+	+	+	+	+	
	wä	20%	80				+	+	+										+	+	+	+	+	+	+	+	
	wä	20%	100				+	+	+										+	+	+	+	+	+	+	+	
		TR		20	+	+	+	+	+	+			+		-	0	0	0	+	+	+	+	+	+	+	+	+
		TR		40	0	+		+	+	+									+	+	+	+	+	+	+	+	+
		TR		60	-	0		+	+	+									+	+	+	+	+	+	+	+	+
		TR		80				+	+	+									+	+	+	+	+	+	+	+	+
	TR		100				0	+	+									+	+	+	+	+	+	+	+	+	
<b>1160</b> butyl acetate acetic acid butyl ester CH3CO2(CH2)3CH3 C6H12O2		TR	20	-	0	0	0	+	+	+	-	-	0		-	-	-	+	+		+	+	+	+	+	+	
		TR	40		-	-	-	+	+	+			-					+	+		+	+	+	+	+	+	
		TR	60					+	+									+	+		+	+	+	+	+	+	
		TR	80					+	+									+	+		+	+	+	+	+	+	
		TR	100					+	+									+	+		+	+	+	+	+	+	
<b>1161</b> butylamine 1-aminobutane CH3(CH2)3NH2 C4H11N		TR	20				+	+	+	-				-		-	-	+	+	+	+	+	+	+	+	+	
		TR	40				0	+	+									+	+	+	+	+	+	+	+	+	
		TR	60				-	+	+									+	+	+	+	+	+	+	+	+	
		TR	80					+	+									+	+		+	+	+	+	+	+	
<b>1162</b> butyl bromide 1-bromobutane CH3(CH2)3Br C4H9Br		TR	20	-	-	-	-	+	+	+	-	-	-	-	-			+	+	+	+	+	+	+	+	+	
		TR	40					+	+	+								+	+	+	+	+	+	+	+	+	
		TR	60					+	+	+								+	+	+	+	+	+	+	+	+	
		TR	80					+	+	+								+	+	+	+	+	+	+	+	+	
		TR	100					+	+	+								+	+		+	+	+	+	+	+	

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1163 1-chlorobutane  CH3(CH2)3Cl C4H9Cl  P	butyl chloride	TR	20	-				+	+	+	+										+	+	+				
		TR	40					+	+	+												+	+	+			
		TR	60					+	+	+												+	+	+			
		TR	80					+	+	+												+	+	+			
		TR	100					+	+	+												+	+	+			
		TR	120					+	+	+												+	+	+			
1164   (CH3)3CC6H4OH C10H14O	4-tert-butylphenol	TR	20	0	0	+	+	+	+	+			+	-	-	0	0									+	
		TR	40	-					+	+	+																
		TR	60						+	+	+																
		TR	80						+	+	+																
		TR	100							+	+																
		TR	120							+	+																
1165 phosphoric acid butyl ester  C4H9OPO(OH)2 C4H11O4P	butyl phosphate	TR	20	-				-	+	+								+		+	+	+					
		TR	40						+	+									+		+	+	+				
		TR	60						+	+									+		+	+	+				
		TR	80						+	+									+		+	+	+				
		TR	100						+	+									+		+	+	+				
		TR	120						+	+									+		+	+	+				
1166   (CH3CO2)2Cd C4H6CdO4	cadmium acetate	wä	GL	20	+	+	+	+		+	+			+				+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+		+	+			+					+	+	+	+	+	+			+
		wä	GL	60		+	+	+		+	+			+					+	+	+	+	+	+			+
		wä	GL	80						+	+								+	+	+	+	+	+			+
		wä	GL	100						+	+								+	+							+

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
CdCl2	cadmium chloride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+			0	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+			0	+	+	+	+	+	+	+	+	+	+	+	+	+
Cd(CN)2 C2CdN2	cadmium cyanide	wä	GL	20	+	+	+	+	-	+	+			+			+	+	+	+	+	+	+				
		wä	GL	40	+	+	+	+	-	+	+			+			+	+	+	+	+	+	+				
		wä	GL	60		+	+			+	+			+				+	+	+	+	+	+	+			
		wä	GL	80						+	+							+	+	+	+	+	+	+			
		wä	GL	100						+	+							+	+	+	+	+	+	+			
CdSO4 CdO4S	cadmium sulfate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+							+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+							+	+	+	+	+	+	+	+	+	+
(CH3CO2)2Ca C4H6CaO4	calcium acetate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+			+				+	+	+	+	+	+	+	+	+	
		wä	GL	80					+	+	+							+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+							+	+	+	+	+	+	+	+	+	
calcium othoarsenate Ca3(AsO4)2 As2Ca3O8	calcium arsenate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+		+	+	+			+				+	+	+	+	+	+	+	+	+	
		wä	GL	80					+	+	+							+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+							+	+	+	+	+	+	+	+	+	

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Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1172 calcium benzoate benzoic acid calcium salt  (C6H5CO2)2Ca C14H10CaO4	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+	+							+	+	+	+	+	+			+
	wä	GL	100						+	+								+	+	+	+	+				+
1173 calcium bromide  CaBr2 Br2Ca	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	+	+	+		+	+	+				+	+	+	+	+	+	+	+	+
	wä	GL	100						+	+								+	+	+	+	+	+	+	+	+
1174 calcium carbide calcium acetylide carbide CaC2 C2Ca		TR	20		+	+	+		+	+																
		TR	40		+	+	+		+	+																
		TR	60		+	+			+	+																
		TR	80						+	+																
		TR	100						+	+																
		TR	120						+	+																
1175 calcium carbonate lime  CaCO3 CCaO3	wä	GL	20	+	+	+	+	+	+	+		+	+				+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+		+	+				+	+	+	+	+	+	+	+	+	+
	wä	GL	60	+	+	+	+	+	+	+		+	+				+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	+	+	+		+					+	+	+	+	+	+	+	+	+	+
	wä	GL	100					+	+	+							+	+	+	+	+	+	+	+	+	+

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1176 Ca(ClO3)2 CaCl2O6	calcium chlorate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+								+	+	+					
		wä	GL	100					+	+	+															
1177 CaCl2	calcium chloride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+
		wä	GL	60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	-	-	+
		wä	GL	80			+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+		+
		wä	GL	100					+	+	+				0	+	+	+	+	+	+	+	+	+		+
1178 chromatite CaCrO4	calcium chromate	wä	GL	20	+					+	+								+	+	+	+	+			
		wä	GL	40						+	+								+	+	+	+	+			
		wä	GL	60						+	+								+	+	+	+	+			
		wä	GL	80						+	+								+	+	+	+	+			
		wä	GL	100						+	+								+	+	+	+	+			
1179 fluorspar CaF2	calcium fluoride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	80					+	+	+								+	+	+					
		wä	GL	100					+	+									+	+	+					
1180 calcium bicarbonate Ca(HCO3)2 C2H2CaO6	calcium hydrogencarbonate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+		+	+	+	0	0	+	+	+	+	+	+			+
		wä	GL	80			+		+	+	+		+	+					+	+	+	+	+			+
		wä	GL	100					+	+									+	+	+					+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1181 Ca(SH)2 H2CaS2	calcium hydrogensulfide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1182 lime milk slaked lime Ca(OH)2 H2CaO2	calcium hydroxide	wä	GL	20	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	0	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	0	+	+	+	+	0	+	0	0	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80			+		-	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	100					-	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	
1184 Ca(NO3)2 CaN2O6	calcium nitrate	wä	50%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	50%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	
		wä	50%	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	50%	80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	50%	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
1185 oxalic acid calcium salt CaC2O4 C2CaO4	calcium oxalate	wä	GL	20	+					+	+										+	+	+					
		wä	GL	40						+	+											+	+	+				
		wä	GL	60						+	+											+	+	+				
		wä	GL	80						+	+											+	+	+				
		wä	GL	100						+	+											+	+	+				
1186 Ca(MnO4)2 CaMn2O8	calcium permanganate	wä	VL	20	+					+	+																	
		wä	VL	40						+	+																	
		wä	VL	60						+	+																	
		wä	VL	80						+	+																	
		wä	VL	100						+	+																	

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1187	calcium peroxide	wä	GL	20	+																								
		wä	GL	40	+																								
		wä	GL	60	+																								
		wä	GL	80																									
		wä	GL	100																									
CaO2																													
	1188	calcium dihydrogenphosphate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
			wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			wä	GL	80					+	+	+								+	+	+	+	+	+	+	+	+	
wä			GL	100					+	+	+								+	+	+	+	+	+	+	+	+		
Ca(H2PO4)2 H4CaO8P2																													
	1189	calcium sulfate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
			wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			wä	GL	80			+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	
wä			GL	100					+	+	+							+	+	+	+	+	+	+	+	+	+		
gypsum CaSO4 CaO4S																													
	1190	calcium sulfide	wä	GL	20	+	+	+	+	0	+	+		+					+	+	+	+	+	+	+	+	+		
			wä	GL	40	+	+	+	+	0	+	+		+					+	+	+	+	+	+	+	+	+		
			wä	GL	60		+	+	+		+	+		+						+	+		+	+	+	+	+	+	
			wä	GL	80						+	+								+	+								
wä			GL	100						+	+								+	+									
CaS																													
	1191	calcium sulfite	wä	GL	20	+	+	+	+	+	+	+		+				+	+	+	+	+	+	+	+	+	+		
			wä	GL	40	+	+	+	+	+	+	+		+				+	+	+	+	+	+	+	+	+	+		
			wä	GL	60		+	+	+	+	+	+		+				+	+	+	+	+	+	+	+	+	+	+	
			wä	GL	80					+	+	+							+	+	+	+	+	+	+	+	+	+	
wä			GL	100					+	+								+	+	+	+	+	+	+	+	+	+		
CaSO3 CaO3S																													

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																															
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537								
1192 calcium bisulfite Ca(HSO3)2 H2CaO6S2	calcium hydrogensulfite	wä	GL	20	+	+	+	+																			+							
		wä	GL	40	+	+	+	+																				+						
		wä	GL	60		+	+	+																					+					
		wä	GL	80							+	+																	+					
		wä	GL	100							+	+																	+					
1193 C10H16O	(±)-camphor		TR	20	-	-	0	0	+	+	+					0			-	+	+	+					+	+	+					
			TR	40					+	+	+																	+	+	+				
			TR	60					+	+	+																		+	+	+			
			TR	80						+	+																		+	+	+			
			TR	100						+	+																		+	+	+			
1194	camphor oil			20	-	-	-	-	+	+	+					-			-	-	+	+	+	+	+	+	+	+	+	+				
				40					+	+	+																		+	+	+			
				60						+	+																			+	+	+		
				80						+	+																				+	+	+	
				100						+	+																				+	+	+	
1195 C6H11NO	e-caprolactam hexahydro-2H-azepin-2-one		TR	20																														
			TR	40																														
			TR	60																														
			TR	80																														
1196 C6H10O2	e-caprolactone 6-hydroxyhexanoic acid lactone 6-hexanolide		TR	20	-					+	+										+													
			TR	40						+	+											+												
			TR	60						+	+											+												
			TR	80						+	+											+												
			TR	100						+	+											+												

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Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1197</b> carbazole dibenzo[b,d]pyrrole 9-azafluorene C12H9N	TR	20		+	+	+			+	+	+										+	+	+			
	TR	40		+	+	+			+	+	+										+	+	+			
	TR	60		+	+	+			+	+	+										+	+	+			
	TR	80							+	+																
	TR	100							+	+																
<b>1199</b> carbon disulfide CS2	TR	20	0	0	-	-	+	+	+	+	-	-		-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	40	-	-			+	+	+	0							+	+	+	+	+	+	+	+	+	+
<b>1200</b> Caro's acid peroxosulfuric acid peroxomonosulfuric acid H2SO5 H2O5S	wä	VL	20	+	-	-	-	+	+	+			-	-	-	-		+	+		+	+	+			
	wä	VL	40						+	+								+	+		+	+	+			
	wä	VL	60						+	+								+	+		+	+	+			
	wä	VL	80						+	+								+	+		+	+	+			
	wä	VL	100						+	+								+	+							
<b>1201</b> quinine C20H24N2O2	wä	GL	20	+	+	+	+		+	+			+								+	+	+			
	wä	GL	40		+	+	+		+	+			+									+	+	+		
	wä	GL	60		+	+	+		+	+			+									+	+	+		
	wä	GL	80						+	+																
	wä	GL	100						+	+																
<b>1202</b> quinoline 1-azanaphthalene C9H7N	TR	20	-	-	-	-	-	+	+			-									+	+	+			
	TR	40						+	+													+	+	+		
	TR	60						+	+													+	+	+		
	TR	80						+	+																	
	TR	100						+	+																	

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Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1204</b> chloroacetaldehyde  chloroethanal  ClCH2CHO C2H3ClO	TR	20	-					+	+									+	+	+	+	+				
	TR	40						+	+									+	+	+	+	+				
	TR	60						+	+									+	+	+	+	+				
	TR	80						+	+									+	+	+	+	+				
<b>1205</b> 1-chloro-2-propanone monochloroacetone ClCH2COCH3 C3H5ClO	TR	20	-					+	+	-				-		0	0	+	+	+	+	+	+	+	+	+
	TR	40						+	+							0	0	+	+	+	+	+	+	+	+	+
	TR	60						+	+							0	0		+	+	+	+	+	+	+	+
	TR	80						+	+										+	+				+	+	+
	TR	100						+	+										+	+				+	+	+
<b>1206</b> trichloroacetaldehyde hydrate  CCl3CH(OH)2 C2H3Cl3O2	TR	20	-	+	0	0	-	+	+			0		-	0	0	0									
	TR	40		+	0	0		+	+			0		-	0	0	0									
	TR	60		+	-	-		+	+			-			0	0	0									
	TR	80						+	+																	
	TR	100						+	+																	
<b>1207</b> N-chlorobenzenesulfonic acid amide sodium sal  C6H5SO2N(Cl)Na C6H5ClNaO2S	wä	VL	20	+	+	+	+	+	+			+		+	+	-	-	+	+	+	+	+	+	+	+	+
	wä	VL	40					+	+									+	+	+	+	+	+	+	+	+
	wä	VL	60					+	+									+	+	+	+	+	+	+	+	+
	wä	VL	80					+	+										+	+	+	+	+	+	+	+
	wä	VL	100					+	+										+	+						+
<b>1208</b> monochlorobenzene  C6H5Cl C6H5Cl	TR	20	-	0	0	0	+	+	+	-	-	0		-	-	-	-	+	+	+	+	+	+	+	+	+
	TR	40	-	-	-	-	+	+	+										+	+	+	+	+	+	+	+
	TR	60	-	-	-	-	+	+	+										+	+	+	+	+	+	+	+
	TR	80					0	+	+										+	+	+	+	+	+	+	+
	TR	100			-	-	0	+	+										+	+	+		+	+	+	+

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1209  NaOCl ClNaO  P	sodium hypochlorite	wä 5%	20	+	0	0	0	+	+	+																			
		wä 5%	40	+	0	0	0	0	+	+																			
		wä 5%	60	0	-	-	-	0	+	+																			
	wä 5%	80						+	+																				
	wä 5%	100						+	+																				
	wä 12,5%	20	+	0	0	0	+	+	+	-	0	-	-	+	+	+	+	+	-	+	+	+	-	-	+	+			
	wä 12,5%	40	+	0	-	-	0	+	+																				
	wä 12,5%	60	0						+	+																			
	wä 12,5%	80							+	+																			
	wä 12,5%	100							+	+																			
	wä 15%	20	+	-	-	-	+	+	+	-	-	-	-	0	+	+	+	+	-	+	+	+	-	-	+	+			
	wä 15%	40	+				0	+	+																				
	wä 15%	60	-						+	+																			
	wä 15%	80							+	+																			
	wä 15%	100							+	+																			
1210  CH2BrCl  P	bromochloromethane	TR	20	-	-	-	-		+	+		-	-						+	+	+	+	+	+	+	+	+	+	
		TR	40						+	+										+	+	+	+	+	+	+	+	+	+
		TR	60						+	+										+	+	+	+	+	+	+	+	+	+

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1211 monochloroacetic acid  ClCH2CO2H C2H3ClO2	33%	20	+	+	+	+	+	+	+	+												+	+	-	+		
		40	+	+	+	+	+	+	+														+	+		+	
		60	0	+	+		+	+	+															+			+
	33%	80					+	+	+																		
		100						+	+																		
	50%	20	+	+	+	+	+	+	+			+		-	0	-	-	+	+	+	+	+	+	-	-	+	
		40	+	+	+	+	0	+	+			+						+	+	+	+	+	+			+	
		60	0	+	+		-	+	+			+							+	+	+		+			+	
	50%	80							+	+																	
		100							+	+																	
	85%	20	+	+	+	+	+	+	+			+		-	0	-	-	+	+	+	+	+	+	-	-	+	
		40	+	+	+	+	0	+	+			+							+	+	+	+	+			+	
		60	0	+	+		-	+	+			+							+	+	+		+			+	
	85%	80							+	+																	
		100							+	+																	
1212 ethylene chlorohydrin  ClCH2CH2OH C2H5ClO	TR	20	-	+	0	0	+	+	+	-		0		-	0	-	-	+	+	+	+	+	+	+	+		
		40	-	+			0	+	+										+	+	+	+					
		60	-	+	0	0	0	+	+			0							+	+	+	+					
		80					-	+	+										+	+	+	+					
		100						+	+										+	+	+	+					

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant



## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																												
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537					
1213	chlorine	20	gf, fe	TR, GK	0	-	-	-	0	+	+	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+			
			gf, fe	TR, GK	40				0	+	+								+	+	+	+	+	+	+	+	+	+	+		
			gf, fe	TR, GK	60					-	+	+								+	+	+	+	+	+	+	+	+	+	+	
			gf, fe	TR, GK	80						+	+									+	+	+	+	+	+	+	+	+	+	
			gf, fe	TR, GK	100						+	+									+	+	+	+	+	+	+	+	+	+	
			gf, tr	TR, GK	20	0	-	-	-	+	+	+	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	
			gf, tr	TR, GK	40	0				+	+	+								+	+	+	+	+	+	+	+	+	+	+	+
			gf, tr	TR, GK	60	-				+	+	+									+	+	+	+	+	+	+	+	+	+	+
			gf, tr	TR, GK	80						+	+									+	+	+	+	+	+	+	+	+	+	+
			gf, tr	TR, GK	100						+	+									+	+	+	+	+	+	+	+	+	+	+
1215	chloride of lime calcium chloride hypochlorite CaCl(OCl) + Ca(OH)2 CaCl2O	20	wä	GL	+	+	+	+	+	+	+	+	0	+	+		+	+	+	+	+	+	+	+	+	+	+	+			
			wä	GL	40	+	+	+	+	+	+	+	+	0	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	
			wä	GL	60		+	+	+	0	+	+			+	+	+	+	+	+	+	+	+	+	+	0	0				
			wä	GL	80					0	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			wä	GL	100						+	+								+	+	+	+	+	+	+	+	+	+	+	
1216	4-chloro-m-cresol 4-chloro-3-methylphenol 1-chloro-4-hydroxy-2-methylbenzene ClC6H3(CH3)OH C7H7ClO	20		TR	-	-	-	-		+	+																				
				TR	40						+	+																			
				TR	60							+	+																		
				TR	80							+	+																		
				TR	100							+	+																		
1217	chloroform trichloromethane CHCl3	20		TR	-	-	-	-	+	+	+	-	-	-	-	-	0	0	+	+	+	+	+	+	+	+	+	+			
				TR	40					+	+	+								+	+	+	+	+	+	+	+	+	+	+	
				TR	60					+	+	+									+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1218	chlorophenol (2-, 3- a. 4-)	TR	20	+																									
		TR	40																										
		TR	60																										
		TR	80																										
		TR	100																										
1219	chloric acid	wä	10%	20	+	+	+	+	+	+	+	-	-	+	-	-	-	-	+	-	+		+	-	-				
		wä	10%	40	+	+	0	0	+	+	+			0						+		+		+					
		wä	10%	60	0		-	-		+	+											+		+					
		wä	10%	80						+	+																		
		wä	10%	100						+	+																		
		wä	20%	20	+	0	0	0	+	+	+			0	-	-		-	-	+	-	+		+	-	-			
		wä	20%	40	+		-	-	+	+	+									+		+		+					
		wä	20%	60	-					+	+												+		+				
		wä	20%	80						+	+																		
		wä	20%	100						+	+																		
1220	chlorosulfonic acid	TR	20	-	-	-	-	0	+	+	-	-	-		-	-	-	-	+	+	-	+		+					
		TR	40						-	+	+								+	+	-	+		+					
		TR	60						+	+																			
		TR	80						+	+																			
		TR	100						+	+																			
1221	chlorotoluene (2-, 3- a. 4-)	TR	20	-	-	-	-		+	+	-	-	-		-	-	-	-	+	+	+	+	+	+	+	+	+		
		TR	40						+	+										+	+		+	+	+	+	+	+	
		TR	60						+	+										+	+		+	+	+	+	+	+	
		TR	80						+	+										+			+	+	+	+	+	+	
		TR	100						+	+										+			+	+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1222 trifluorovinyl chloride  ClCF=CF2 C2ClF3	chlorotrifluoroethylene	gf	TR, GK	20		-	-	-																				
		gf	TR, GK	40																								
		gf	TR, GK	60																								
		gf	TR, GK	80																								
		gf	TR, GK	100																								
1224  Cl2	chlorine, aqueous solution	wä	GL	20	0	0	0	0	+	+	+	-		0	-	-	0	+	+	+	+		+	+	+	+	+	
		wä	GL	40	0	0			+	+	+								+	+			+	+				
		wä	GL	60					+	+	+								+	+			+	+				
		wä	GL	80					+	+	+									+								
		wä	GL	100					+	+	+									+								
1225  HCl	hydrogen chloride	gf	TR, GK	20	+	+	+	+	+	+	+			+		0	+	+	+	+								
		gf	TR, GK	40	+	+	+	+	+	+	+			+		-	+	+	+	+								
		gf	TR, GK	60	0	+	+	+	+	+	+			+			+	+	+	+								
		gf	TR, GK	80					+	+	+																	
		gf	TR, GK	100					+	+	+																	
1226 chromium(III) potassium sulfate chromium alum CrK(SO4)2 CrKO8S2	potassium chromium(III) sulfate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+	+		+	
		wä	GL	80					+	+	+						+	+	+	+	+	+	+	+	+		+	
		wä	GL	100					+	+							+	+	+	+	+	+					+	
1227  CrCl3 Cl3Cr	chromium(III) chloride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+	+		+	
		wä	GL	80					+	+	+								+	+	+	+	+	+	+		+	
		wä	GL	100					+	+	+								+	+	+	+					+	

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1228  CrF3	chromium(III) fluoride	wä	GL	20	+	+	+	+	+	+	+					+			+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+					+			+	+	+	+	+	+			+	
		wä	GL	60		+	+										+			+	+	+						+
		wä	GL	80							+	+								+	+	+						+
		wä	GL	100							+	+								+	+	+						+
1229  Cr(OH)3 H3CrO3	chromium(III) hydroxide	wä	GL	20	+	+	+	+	+	+	+				+			+	+	+	+	+	+	+			+	
		wä	GL	40		+	+	+	+	+	+					+			+	+	+	+	+	+			+	
		wä	GL	60		+	+	+	+	+	+					+			+	+	+	+	+	+			+	
		wä	GL	80							+	+							+	+	+	+	+	+			+	
		wä	GL	100							+	+							+	+	+	+	+	+			+	
1230  Cr(NO3)3 CrN3O9	chromium(III) nitrate	wä	GL	20	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	60	0	+	+	+	+	+	+					+	+	+	+	+	+	+	+	+			+	
		wä	GL	80						+	+	+							+	+	+	+	+	+			+	
		wä	GL	100							+	+							+	+	+	+	+	+			+	
1231  Cr2O3	chromium(III) oxide		TR	20	+	+	+	+	+	+	+	-			+	+	+											
			TR	40	+	+	+	+	+	+	+					+	+	+										
			TR	60		+	+	+	+	+	+					+	+	+										
			TR	80						+	+	+				+	+	+										
			TR	100						+	+	+																

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1232  CrO3 + H2O H2CrO4  P	chromic acid	wä 20%	+	+	+	+	+	+	+	+	-	-	-	0	+	+	+	+	+	+	+	+	-	-	-		
		wä 20%	+	+	0	0	+	+	+	+	+	+	0	-	0	+	+	+	+	+	+	+	+	-	-	-	
		wä 20%	0	0	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	
		wä 20%					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	
		wä 20%							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	
		wä 30%	+	+	0	0	+	+	+	+	-	0	-	-	0	+	+	+	+	+	+	+	+	+	-	-	-
		wä 30%	+	0	-	-	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	-	-	-
		wä 30%	0	-			+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	-	-	-
		wä 30%					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
		wä 30%								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
		wä 50%	+	+	0	0	+	+	+	+	-	0	-	-	0	+	+	+	+	+	+	+	+	+	-	-	-
		wä 50%	+	0	-	-	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	-	-	-
		wä 50%	0	-			+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	-	-	-
		wä 50%					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
		wä 50%								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
		wä 60%	+	0	0	0	+	+	+	+	-	0	-	-	0	+	+	+	+	+	+	+	+	+	-	-	-
		wä 60%	+	-	-	-	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	-	-	-
		wä 60%					+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	-	-	-
		wä 60%								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
		wä 60%									+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
1233  K2CrO4/H2SO4/H2O = 250g/200g/1000g			20	+	-	-	-	+	+	+	-	-	-				+	+		+	+	-	-	-			
			40					+	+	+							+	+		+	+						
			60					+	+								+	+									
			80					+	+								+										
			100					+	+																		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1234	chromosulfuric acid	20	+																									
		40																										
		60																										
		80																										
		100																										
1235	chromosulfuric acid	20	+					+	+	+	-							+	+		+			-	-			
		40						+	+	+								+	+		+							
		60							+	+								+	+									
		80							+	+								+										
		100							+	+																		
1236	chromosulfuric acid	20	+					+	+	+								+	+		+			-	-			
		40						+	+	+								+	+		+							
		60							+	+								+	+									
		80							+	+								+										
		100							+	+																		
1237	chromosulfuric acid	20	+	-	-	-	+	+	+	-	-	-	-	0	+	+	+	+		+		+		-	-	-		
		40	0				+	+	+					0	+	+	+	+		+		+						
		60					+	+	+						+	+	+	+										
		80					0	+	+									+										
		100						+	+																			

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Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1238</b> citric acid 2-hydroxy-1,2,3-propanetricarboxylic acid HOC(CO2H)(CH2CO2H)2 C6H8O7	wä	10%	20	+	+	+	+	+	+		+	+		0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+		+	+		-	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	+	+	+	+	+	+							+	+	+	+	+	+			+	+	+
	wä	10%	80			+	+	+	+				+			+	+	+	+	+	+					
	wä	10%	100					+	+									+	+	+	+					
	wä	GL	20	+	+	+	+	+	+		+	+		0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+				+		-	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	+	+	+	+	+	+				+			+	+	+	+	+	+			-	0	+
	wä	GL	80			+	+	+	+				+				+	+	+	+	+					
wä	GL	100					+	+										+	+							
<b>1239</b> crotonaldehyde trans-2-butenal CH3CH=CHCHO C4H6O	TR		20	-	+	+	+	+	+	-		+		+	+	+	+	+	+		+	+	+	+	+	+
	TR		40		+			+	+									+	+		+	+	+	+	+	+
	TR		60		0			0	+									+	+		+	+	+	+	+	+
	TR		80						+	+									+		+	+	+	+	+	+
	TR		100						+	+									+		+	+	+	+	+	+
<b>1241</b> crotonic acid trans-2-butenic acid CH3CH=CHCO2H C4H6O2	TR		20	+	-	-	-		+	+			-						+		+	+	+			
	TR		40						+	+									+		+	+	+			
	TR		60						+	+									+		+	+	+			
	TR		80						+	+									+		+	+	+			
	TR		100						+	+									+		+	+	+			
<b>1242</b> cumene 2-phenylpropane isopropylbenzene C6H5CH(CH3)2 C9H12	TR		20	-	-	-	-	+	+	+		-	-		-	-	+	+	+	+	+	+	+	+	+	+
	TR		40					+	+	+								+	+		+	+	+	+	+	+
	TR		60					+	+	+								+	+		+	+	+	+	+	+
	TR		80					+	+									+		+	+	+	+	+	+	+
	TR		100					+	+									+		+	+	+	+	+	+	+

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1243	cyanamide	20	-	-	-	-	-	+	+																		
		40						+	+																		
		60						+	+																		
		80						+	+																		
		100						+	+																		
H2NCN																											
CH2N2																											
1244	cyanoacetic acid ethyl ester ethyl cyanoacetate	20	-	-	-	-	-	+	+									+	+		+	+	+	+	+	+	
		40						+	+									+	+		+	+	+	+	+	+	
		60						+	+									+	+		+	+	+	+	+	+	
		80						+	+									+	+		+	+	+	+	+	+	
		100						+	+									+	+		+	+	+	+	+	+	
NCCH2CO2C2H5																											
C5H7NO2																											
1246	cyclohexane hexahydrobenzene	20	-					+	+	+	0	+			+	-	+	+	+	+	+	+	+	+	+	+	
		40						+	+	+	0							+	+		+	+	+	+	+	+	
		60						+	+	+								+	+		+	+	+	+	+	+	
		80						+	+	+								+	+		+	+	+	+	+	+	
C6H12																											
P																											
1247	cyclohexanol	20	+	+	+	+	+	+	+			+			-	-		+	+		+	+	+	+	+	+	
		40	+	+	+	+	+	+	+			+						+	+		+	+	+	+	+	+	
		60	0	+	0	0	0	+	+			0						+	+		+	+	+	+	+	+	
		80					0	+	+										+	+		+	+	+	+	+	
		100					-	+	+										+	+		+	+	+	+	+	
C6H11OH																											
C6H12O																											
1248	cyclohexanone	20	-	+	+	+	+	+	+	-	-	+			-	-	-	+	+		+	+	+	+	+	+	
		40		0	0	0	0	+	+			0						+	+		+	+	+	+	+	+	
		60		0	0	0	0	+	+			0						+	+		+	+	+	+	+	+	
		80					-	+	+									+	+		+	+	+	+	+	+	
		100						+	+									+	+		+	+	+	+	+	+	
C6H10O																											

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant



## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1249	cyclohexene 1,2,3,4-tetrahydrobenzene  C6H10	20	-	-	-	-	-	+	+									+	+		+	+	+	+	+	+	+
		40						+	+									+	+		+	+	+	+	+	+	+
		60						+	+									+	+		+	+	+	+	+	+	+
		80						+	+									+	+		+	+	+	+	+	+	+
1250	cyclohexylamine aminocyclohexane cyclohexanamine C6H11NH2 C6H13N	20	-	-	-	-		+	+									+	+		+	+	+	+	+	+	
		40						+	+									+	+		+	+	+	+	+	+	
		60						+	+									+	+		+	+	+	+	+	+	
		80						+	+									+	+		+	+	+	+	+	+	
		100						+	+									+	+		+	+	+	+	+	+	
1252	cymene (o-, m- a. p-) Isopropylmethylbenzene (o-, m- a. p-)  CH3C6H4CH(CH3)2 C10H14	20	-	-	-	-		+	+											+	+	+					
		40						+	+											+	+	+					
		60						+	+											+	+	+					
		80						+	+											+	+	+					
		100						+	+											+	+	+					
1253	L-cysteine (R)-2-amino-3-mercaptopropionic acid cys HSCH2CH(NH2)CO2H C3H7NO2S	20			+	+		+	+			+															
		40						+	+																		
		60						+	+																		
		80						+	+																		
		100						+	+																		
1254	L-cystine [-SCH2CH(NH2)CO2H]2 C6H12N2O4S2	20			+	+		+	+			+															
		40						+	+																		
		60						+	+																		
		80						+	+																		
		100						+	+																		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1255</b> DDT 1,1-bis(4-chlorophenyl)-2,2,2-trichloroethane dichlorodiphenyltrichloroethane (C1C6H4)2CHCCl3 C14H9Cl5	TR	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<b>1256</b> decaline decahydronaphthalene  C10H18	TR	20	+	+	-	-	+	+	+	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40	+	0	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+
	TR	60	+	0	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	120	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<b>1257</b> dextran  (C6H10O5)x C6H10O5	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1258 starch gum  (C6H10O5) <sub>n</sub> • xH2O C6H10O5	dextrin	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	80			+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	100					+	+	+					+	+	+	+	+	+	+		+	+	+	+
		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+					+	+	+	+	+	+	+		+	+	+	+
1259 dextrose  C6H12O6	D(+)-glucose	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	VL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	VL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	VL	80			+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	VL	100					+	+	+				+	+	+	+	+	+	+	+		+	+	+	
		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80			+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+				+	+	+	+	+	+	+	+		+	+	+	
1260 butyl ether  CH3(CH2)3O(CH2)3CH3 C8H18O	dibutyl ether		TR	20	0	+	0	0	0	+	+			0	0	-	-	-	+	+		+	+	+	+	+	
			TR	40	-	0	-	-		+	+			-	-				+	+		+	+	+	+	+	
			TR	60		-				+	+								+	+		+	+	+	+	+	
			TR	80						+	+								+	+		+	+	+	+	+	
			TR	100						+	+								+	+		+	+	+	+	+	
			TR	120						+	+								+	+		+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1261 phthalic acid dibutyl ester  C6H4[CO2(CH2)3CH3]2 C16H22O4	TR	20	-	+	+	+	+	+	+	+					0	0	+	+			+	+	+	+	+	+	
	TR	40	-	0	0	0	0	+	+								+	+			+	+	+	+	+	+	
	TR	60	-	0	0	0	0	+	+								+	+			+	+	+	+	+	+	
	TR	80			-	-	-	-	+	+									+			+	+	+	+	+	+
	TR	100							+	+									+			+	+	+	+	+	+
	TR	120							-	+	+								+			+	+	+	+	+	+
1262 dichlorobenzene (o-, m- a. p-)  ClC6H4Cl C6H4Cl2	TR	20	-	-	-	-	+	+	+		-	-	-	-	+	+	+	+			+	+	+	+	+	+	
	TR	40					+	+	+								+	+			+	+	+	+	+	+	
	TR	60					+	+	+								+	+			+	+	+	+	+	+	
	TR	80					0	+	+								+	+			+	+	+	+	+	+	
	TR	100							+	+							+	+			+		+	+	+	+	
	TR	120							+	+								+			+		+	+	+	+	
1263 dichloroacetic acid  Cl2CHCO2H C2H2Cl2O2	wä	50%	20	+	+	+	+	+	+	+		+		-	0	0	+	+								-	
	wä	50%	40	+	+	+	+	+	+	+		+			0	0	+	+									
	wä	50%	60	-	+	+			+	+		+					-	-	+	+							
	wä	50%	80						+	+									+								
	wä	50%	100						+	+																	
	TR	20		-	-	-	-	+	+	+		-	-		0	0	+	+								-	
	TR	40						+	+	+							-	-	+	+							
	TR	60							+	+									+	+							
	TR	80							+	+										+							
	TR	100							+	+																	
	TR	120							+	+																	

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1264 ethylene chloride ClCH2CH2Cl C2H4Cl2 P	TR	20	-	-	-	-	+	+	+	-	-	-	-	-	-	0	0	+	+		+	+	+	+	+	+
	TR	40	-	-	-	-	+	+	+	-	-	-	-	-	-	0	0	+	+		+	+	+	+	+	
	TR	60	-	-	-	-	+	+	+	-	-	-	-	-	-	0	0	+	+		+	+	+	+	+	
	TR	80	-	-	-	-	+	+	+	-	-	-	-	-	-	0	0	+	+		+	+	+	+	+	
1265 1,1-dichloroethylene vinylidene dichloride CH2=CCl2 C2H2Cl2 P	TR	20	-	-	-	-	+	+	+	-	-	-	-	-	-	0	0	+	+		+	+	+	+	+	
1266 dichloromethane methylene chloride CH2Cl2 P	TR	20	-	-	-	-	+	+	-	-	-	-	-	-	-	0	0	+	+		+	+	+	+	+	
	TR	40					+	+										+	+		+	+	+	+	+	
1267 propylene chloride CH3CHClCH2Cl C3H6Cl2 P	TR	20	-	-	-	-	+	+	-	-	-	-	-	-	-			+	+		+	+	+	+	+	
	TR	40					+	+										+	+		+	+	+	+	+	
	TR	60					+	+										+	+		+	+	+	+	+	
	TR	80					+	+										+	+		+	+	+	+	+	
	TR	100					+	+										+	+		+	+	+	+	+	
1268 chloroallyl chloride ClCH2CH=CHCl C3H4Cl2 P	TR	20	-	-	-	-	+	+	-	-	-	-	-	-	-			+	+		+	+	+	+	+	
	TR	40					+	+										+	+		+	+	+	+	+	
	TR	60					+	+										+	+		+	+	+	+	+	
	TR	80					+	+										+	+		+	+	+	+	+	
	TR	100					+	+										+	+		+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1269 Frigen 114  CICF2CF2CI C2CI2F4	1,2-dichlorotetrafluoroethane	TR, GK	20	+	0	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR, GK	40	0					+	+																		
		TR, GK	60							+	+																	
		TR, GK	80							+	+																	
		TR, GK	100							+	+																	
1270	Diesel fuels		20	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	
			40	+	+	0	0	+	+	+		+	0			+	+	+	+			+	+	+	+	+	+	+
			60	0	0	-	-	+	+	+		+	-						+	+			+	+	+	+	+	+
			80					+	+	+									+	+			+	+	+	+	+	+
			100					+	+	+									+	+			+	+	+	+	+	+
			120					+	+	+									+				+	+	+	+	+	+
1271	diethanolamine 2,2'-iminodiethanol bis(2-hydroxyethyl)amine (HOCH2CH2)2NH C4H11NO2	TR	20		+	+	+	-	+	+			+				-	-	+	+		+	+	+	+	+		
		TR	40						+	+									+	+		+	+	+	+	+		
		TR	60						+	+									+	+				+	+			
		TR	80						+	+										+					+	+		
		TR	100						+	+										+					+	+		
1272	diethylamine  (C2H5)2NH C4H11N	TR	20	0	+	+	+	0	+	+			+		-	0	-	-	+	+		+	+	+	+	+	+	
		TR	40	0	0			-	+	+									+	+		+	+	+	+	+	+	
		TR	60		0				+	+									+	+		+	+	+	+	+	+	

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1273</b> diethylene glycol bis(2-hydroxyethyl)ether diglycol O(CH2CH2OH)2 C4H10O3	TR	20	+	+	+	+	+	+	+	-		+		+	+	+	+	+	+		+	+	+	+	+	+	
	TR	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+	+	+	+	
	TR	60	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+	+	+	+	
	TR	80					+	+	+						-	+	+	+	+		+	+	+	+	+	+	
	TR	100					+	+	+						+	+	+	+	+		+	+	+	+	+	+	
<b>1274</b> diethyl ether ethyl ether ether (C2H5)2O C4H10O P	TR	20	-	0	0	0	+	+	+	-		0		-	-	-	-	+	+	+	+	+	+	+	+	+	
	TR	30		-	0	0	+	+	+			0						+	+	+	+	+	+	+	+	+	
<b>1275</b> diethyl ketone 3-pentanone C2H5COC2H5 C5H10O	TR	20	0	+	0	0		+	+	-		0				-	-	+	+		+	+	+	+	+	+	
	TR	40						+	+									+	+		+	+	+	+	+	+	
	TR	60						+	+									+	+		+	+	+	+	+	+	
	TR	80						+	+									+	+		+	+	+	+	+	+	
	TR	100						+	+									+	+		+	+	+	+	+	+	
<b>1276</b> diglycolic acid O(CH2CO2H)2 C4H6O5	wä	30%	20	+	+	+	+	+	+	-	+	+						+	+	+	+	+	+	+	+	+	
	wä	30%	40	+	+	+	+	+	+	-	+	+						+	+	+	+	+	+	+	+	+	
	wä	30%	60	0	+	+	+	+	+			+						+	+							+	
	wä	30%	80					+	+									+	+							+	
	wä	30%	100					+	+									+	+							+	
<b>1277</b> diisobutyl ketone 2,6-dimethyl-4-heptanone isovalerone (CH3)2CHCH2COCH2CH(CH3)2 C9H18O	TR	20	+	+	+	+	+	+	+	-	+		-	0	-	-	+	+		+	+	+	+	+	+	+	
	TR	40		-	-	-	+	+	+			-					+	+		+	+	+	+	+	+	+	
	TR	60		-	-	-	0	+	+			-					+	+		+	+	+	+	+	+	+	
	TR	80					+	+									+	+		+	+	+	+	+	+	+	
	TR	100					+	+									+	+		+	+	+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1278	diisopropyl ether	TR	20	-	0	-	+	+	+	+	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	40	-	0	-	+	+	+	+	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	60	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	
isopropyl ether																										
(CH3)2CHOCH(CH3)2																										
C6H14O																										
P																										
1279	dimethylamine	wä	40%	20	-	+	+	+	0	+	+	+	+	-	0	-	-	+	+	+	+	+	+	+	+	
		wä	40%	40	-	0	-	-	+	+	+	+	+	+	-	-	-	-	+	+	+	+	+	+	+	+
(CH3)2NH																										
C2H7N																										
P																										
1280	N,N-dimethylaniline	TR	20	-	-	-	+	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	40	-	-	-	+	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	60	-	-	-	0	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	80	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	100	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	120	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
C6H5N(CH3)2																										
C8H11N																										
1282	dimethylformamide	TR	20	-	+	+	+	-	+	+	-	+	+	-	0	-	-	+	+	+	+	+	+	+	+	
		TR	40	-	+	+	+	-	+	+	-	+	+	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	60	-	0	+	+	-	+	+	-	+	+	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	80	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	100	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		TR	120	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
N,N-dimethylformamide																										
DMF																										
HCON(CH3)2																										
C3H7NO																										

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1283 1,1-dimethylhydrazine  H2NN(CH3)2 C2H8N2	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	60	+																								
	wä	GL	80																									
	wä	GL	100																									
1284 dimethyl phthalate phthalic acid dimethyl ester DMP C6H4-1,2-(CO2CH3)2 C10H10O4		TR	20	-	0	+	+			+	+			-	+			-	0	+	+	+	+	+	+	+	+	
		TR	40							+	+										+	+		+	+	+	+	
		TR	60							+	+										+	+		+	+	+	+	
		TR	80							+	+										+	+		+	+	+	+	
		TR	100							+	+										+	+		+	+	+	+	
		TR	120							+	+										+	+		+	+	+	+	
1285 sodium hydrogenphosphate disodium hydrogenphosphate  Na2HPO4 HNa2PO4	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	100					+	+	+											+	+					+	
1286 1,4-dioxane  C4H8O2		TR	20	-	+	0	0	0	+	+	-		0		-	0	-	-	+	+		+	+	+	+	+	+	
		TR	40		+	0	0	-	+	+	-		0						+	+		+	+	+	+	+	+	
		TR	60		+	0	0		+	+			0						+	+		+	+	+	+	+	+	
		TR	80			-	-		+	+			-							+	+		+	+	+	+	+	
		TR	100						+	+										+	+		+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1287</b> diphenyl biphenyl dibenzene C6H5-C6H5 C12H10	TR	20	-	+	0	0	-	+	+																	
	TR	40		+	0	0		+	+																	
	TR	60		+	0	0		+	+																	
	TR	80						+	+																	
	TR	100						+	+																	
<b>1288</b> diphenylamine N-phenylaniline  (C6H5)2NH C12H11N	TR	20	-	-	-	-	-	+	+																	
	TR	40						+	+																	
	TR	60						+	+																	
	TR	80						+	+																	
	TR	100						+	+																	
<b>1289</b> diphenyl ether diphenyl oxide phenyl ether (C6H5)2O C12H10O	TR	20	-	-	-	-	-	+	+								+	+		+	+	+	+	+	+	+
	TR	40						+	+								+	+		+	+	+	+	+	+	+
	TR	60						+	+								+	+		+	+	+	+	+	+	+
	TR	80						+	+								+	+		+	+	+	+	+	+	+
	TR	100						+	+								+	+		+	+	+	+	+	+	+
	TR	120						+	+								+	+		+	+	+	+	+	+	+
<b>1290</b> benzophenone diphenyl ketone  (C6H5)2CO C13H10O	TR	20						+	+								+	+		+	+	+				
	TR	40						+	+								+	+		+	+	+				
	TR	60						+	+								+	+		+	+	+				
	TR	80						+	+								+	+		+	+	+				
	TR	100						+	+								+	+		+	+	+				

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1295  FeClSO4 ClFeO4S	iron(III) chloride sulfate	wä	40%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	40%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	40%	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	40%	80			+	+		+	+		+							+	+		+					
		wä	40%	100							+	+								+	+							
1296  FeCl2 Cl2Fe	iron(II) chloride	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	VL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	80			+	+	+	+	+		+	+					+	+	+	+	+	+	+	+	+	+
		wä	VL	100					+	+	+								+	+	+	+						+
		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+	+	+	+		+	+					+	+	+	+	+	+	+	+	+	+
wä	GL	100					+	+	+								+	+	+	+						+		
1297  Fe(OH)2 H2FeO2	iron(II) hydroxide	wä	GL	20		+	+	+						+	+			+	+	+	+	+	+	+	+	+		
		wä	GL	40		+	+	+							+	+			+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+							+	+			+	+		+	+	+	+	+	+	
		wä	GL	80			+	+							+				+	+							+	
		wä	GL	100															+	+							+	

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## Chemical Resistance

Release Date: 2023-04-24

		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
<b>1298</b>	<b>iron(III) chloride</b>	wä	10%	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	-	-	+		
		ferric chloride	wä	10%	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			+	
			wä	10%	60	0	+	+	+	+	+	+							+	+	+	+	+	+	+	+				+
			wä	10%	80			+	+	+	+	+							+	+	+	+	+	+	+	+				+
		FeCl3	wä	10%	100					+	+	+									+	+	+	+	+	+				+
			wä	48% (GL)	20	+	+	+	+	+	+	+				+		+	+	+	+	+	+	+	+	+	+	-	-	+
			wä	48% (GL)	40	+	+	+	+	+	+	+				+		+	+	+	+	+	+	+	+	+				+
			wä	48% (GL)	60		+	+	+	+	+	+				+			+	+	+	+	+	+	+	+				+
			wä	48% (GL)	80			+	+	+	+	+				+			+	+	+	+	+	+	+	+				+
			wä	48% (GL)	100					+	+	+							0	+	+	+	+	+	+	+				+
<b>1299</b>	<b>iron(III) nitrate</b>	wä	GL	20	+	+	+	+	+	+			+	+			+	+	+	+	+	+	+	+	+				+	
			wä	GL	40	+	+	+	+	+	+			+	+			+	+	+	+	+	+	+	+	+				+
			wä	GL	60		+	+	+	+	+				+			+	+	+	+	+	+	+	+	+				+
		Fe(NO3)3	wä	GL	80					+	+	+									+	+	+	+	+	+				+
		FeN3O9	wä	GL	100					+	+	+									+	+	+	+	+	+				+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1300  Fe2(SO4)3 Fe2O12S3	iron(III) sulfate	wä 10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä 10%	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä 10%	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä 50%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä 50%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä 50%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä 50%	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä 50%	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä GL	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
1301  Fe(NO3)2 FeN2O6	iron(II) nitrate	wä GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL	80			+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
1302  FeSO4 FeO4S	iron(II) sulfate	wä GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL	80			+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1303	iron oxalate iron(II)/(III) oxalate oxalic acid iron salts FeC2O4/Fe2(C2O4)3 C2FeO4/C6Fe2O12	wä	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		wä	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		wä	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	100							+	+								+	+									
1307	epichlorohydrin chloromethyloxirane 1-chloro-2,3-epoxypropane C3H5ClO	TR	20	-	+	+	+	-	+	+					+						+	+	+						
		TR	40	-	+	+	+	-	+	+					+						+	+	+						
		TR	60		+	+	+	-	+	+											+	+	+						
		TR	80					-	+	+											+	+	+						
		TR	100					-	+	+											+	+	+						
		TR	120					-	+	+												+	+	+					
1308	natural gas CH4	gf	GK	20	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+						+	+	+		
		gf	GK	40					+	+	+	+					+	+	+							+	+	+	
		gf	GK	60					+	+	+																+	+	+
		gf	GK	80					+	+	+																+	+	+
		gf	GK	100					+	+	+																+	+	+
1309	petroleum crude oil		20	0	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+		+	+	+	+	+	+		
			40		0	0	0	+	+	+	+		0									+	+	+	+	+	+	+	
			60		-	-	-	+	+	+			-										+	+	+	+	+	+	
			80					+	+	+													+	+	+	+	+	+	
			100					+	+	+													+	+	+	+	+	+	

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1310 ethanoic acid  CH3CO2H C2H4O2	acetic acid	20	+	+	+	+	+	+	+	+	-	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+	+	-	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+
		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+	+	+	-	+	+	+	0	-	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+
		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+	+	+	-	+	+	+	0	-	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	-	0	+	+	+	+	+	+	+	+	+	+
		60								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+	+	+	-	+	+	+	0	-	+	+	+	+	+	+	+	+	+	+
		40	0	+	+	+	+	+	+	+	+	+	+	+	+	-	0	+	+	+	+	+	+	+	+	+	+
		60								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
wä	80%	80						+	+									+	+		+				+	
wä	80%	100						+	+										+							+
wä	90%	20	+	+	+	+	+	+	+	-		+		-	0	-	0	+	+		+	+	+	+	+	+
wä	90%	40	0	+	+	+	+	+	+			+			-		-	+	+		+	+	+	+	+	+
wä	90%	60						+	+									+	+		+		+			+
wä	90%	80						+	+									+	+		+		+			+
wä	90%	100						+	+									+			+		+			+
wä	95%	20	+	+	+	+	+	+	+	-		+		-	0	-	-	+	+		+	+	+	+	+	+
wä	95%	40	0	+	+	+	0	+	+			+			-			+	+		+	+	+	+	+	+
wä	95%	60						+	+									+	+		+		+			+
wä	95%	80						+	+									+	+		+		+			+
wä	95%	100						+	+									+			+		+			+
tr	100%	20	0	+	+	+	0	+	+	-	-	+		-	0	-	-	+	+		+	+	+	+	+	+
tr	100%	40	-	0	+	+	0	+	+			+			0			+	+		+	+	+	+	+	+
tr	100%	60						+	+									+	+		+		+			+
tr	100%	80						+	+									+	+		+		+			+
tr	100%	100						+	+									+			+		+			+

1311	ethane	gf	TR, GK	20	+	+	+	+	+	+				+		+	-	+	+							
		gf	TR, GK	40		+			+	+	+															
		gf	TR, GK	60		+			+	+	+															
CH3CH3		gf	TR, GK	80					+	+	+															
C2H6		gf	TR, GK	100					+	+	+															

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Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1312 ethanol ethyl alcohol CH3CH2OH C2H6O	10%	20	wä	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	wä	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	wä	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	wä					+	+	+					+		+	+	+	+		+	+	+	+	+	+	+
		20	wä	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	wä	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
		60	wä	0	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+	+	+	+	+	+
		80	wä						+	+	+					+			+	+		+	+	+	+	+	+	+
		20	TR	+	+	+	+	+	+	+	-	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	TR	+	+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
60	TR	0	+	+	+	+	+	+			+		-				+	+		+	+	+	+	+	+	+		
80	TR						+	+	+								+	+		+	+	+	+	+	+	+		
1313 ethanolamine 2-aminoethanol colamine NH2CH2CH2OH C2H7NO	TR	20		-	+	+	+	-	+	+	-	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+		
		40			+	+	+		+	+		+	+		+	+		+	+	+	+	+	+	+	+	+	+	
		60			+	+	+		+	+		+	+	0	+			+	+				+				+	
		80				+	+		+	+		+	+		+				+					+				+
		100							+	+									+									+
1314 ethene ethylene CH2=CH2 C2H4	TR, GK	20	gf	+	+			+	+	+					-													
		40	gf		+			+	+	+																		
		60	gf		0			+	+	+																		
		80	gf					+	+	+																		
		100	gf					+	+	+																		

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Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1316 isooctanol  CH3(CH2)3CH(C2H5)CH2OH C8H18O	2-ethyl-1-hexanol	20	+	+	+	+		+	+									+	+		+	+	+	+	+	+
		40		+				+	+									+	+		+	+	+	+	+	+
		60		0				+	+									+	+		+	+	+	+	+	+
		80						+	+									+	+		+	+	+	+	+	+
		100						+	+									+	+		+	+	+	+	+	+
		120						+	+									+	+		+	+	+	+	+	+
1317 acetic acid ethyl ester  CH3CO2C2H5 C4H8O2	ethyl acetate	20	-	+	+	+	-	+	+	-	-	+	-	-	-	-	+	+		+	+	+	+	+	+	
		40		0	0	0		+	+			0					+	+		+	+	+	+	+	+	
		60		-	-	-		+	+			-					+	+		+	+	+	+	+	+	
		80						+	+								+	+		+	+	+	+	+	+	
1318 acrylic acid ethyl ester 2-propenoic acid ethyl ester CH2=CHCO2C2H5 C5H8O2	ethyl acrylate	20	-					+	+					-	0	-	-	+		+	+	+			+	
		40	-					+	+									+		+	+	+				
		60	-					-	+	+								+		+	+	+				
		80						-	+	+								+		+	+	+				
		100						+	+									+		+	+	+				
1319 phenylethane  C6H5C2H5 C8H10	ethylbenzene	20	-	0	0	0	+	+	+		-	0		-	-	+	+	+	+	+	+	+	+	+	+	
		40		-	-	-		+	+			-					+	+	+	+	+	+	+	+	+	
		60		-				+	+								+	+		+	+	+	+	+	+	
		80						+	+								+	+		+	+	+	+	+	+	
		100						+	+								+	+		+	+	+	+	+	+	
		120						+	+								+	+		+	+	+	+	+	+	

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		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
<b>1320</b>	<b>ethyl chloride</b> chloroethane CH3CH2Cl C2H5Cl	gf	TR, GK	20	-	0	0	0	+	+	+			0		-	-	0	0											
		gf	TR, GK	40		-	0	0	+	+	+			0					0	0										
		gf	TR, GK	60					+	+	+								0	0										
		gf	TR, GK	80					+	+	+																			
		gf	TR, GK	100					+	+	+																			
<b>1321</b>	<b>ethylene bromide</b> 1,2-dibromoethane BrCH2CH2Br C2H4Br2		TR	20	-	0	-	-	+	+	+			-		-	-	0	0	+	+		+	+	+	+	+	+	+	
			TR	40		-			+	+	+										+	+		+	+	+	+	+	+	+
			TR	60					+	+	+										+	+		+	+	+	+	+	+	+
			TR	80					+	+	+										+	+		+	+	+	+	+	+	+
			TR	100					+	+	+											+		+		+	+	+	+	+
			TR	120						+	+											+		+		+	+	+	+	+
<b>1322</b>	<b>ethylenediamine</b> ethane-1,2-diamine 1,2-diaminoethane H2NCH2CH2NH2 C2H8N2		TR	20	0	+	+	+		+	+	-		+		-	+	-	-	+	+		+	+	+	+	+	+		
			TR	40		-	+	+	+		+	+			+						+	+		+	+	+	+	+	+	
			TR	60		-	+	+	+		+	+			+						+	+		+	+	+	+	+	+	+
			TR	80						+	+											+		+		+	+	+	+	+
			TR	100						+	+											+		+		+	+	+	+	+
<b>1323</b>	<b>ethylenediaminetetraacetic acid</b> EDTA Titriplex® II (HO2CCH2)2NCH2CH2N(CH2CO2H)2 C10H16N2O8	wä	0,05% (GL)	20	+	+	+	+	+	+	+			+			+	+	+	+	+									
		wä	0,05% (GL)	40		+	+	+	+	+	+	+			+						+	+								
		wä	0,05% (GL)	60			+	+	+	+	+	+			+						+	+								
		wä	0,05% (GL)	80						+	+	+									+	+								
		wä	0,05% (GL)	100						+	+	+									+	+								

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<b>1324</b> ethylene glycol 1,2-ethanediol glycol HOCH2CH2OH C2H6O2	TR	20	+	+	+	+	+	+	+	-	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	60	+	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+	+	+
	TR	80					+	+	+						+	+	+	+	+	+				+	+	+
	TR	100					+	+	+						+	+	+	+	+	+				+	+	+
	TR	120						+	+										+					+	+	+
<b>1325</b> ethylene glycol diethyl ether 1,2-diethoxyethane diethyl glycol CH3CH2OCH2CH2OCH2CH3 C6H14O2	TR	20	+	+	+	+	+	+	+	-	+	+		+	+			+	+		+	+	+	+	+	+
	TR	40	+	+	+	+	+	+	+		+	+		+	+			+	+		+	+	+	+	+	+
	TR	60		+	+	+	+	+	+			+		+	+			+	+		+	+	+	+	+	+
	TR	80					+	+	+					0	+			+	+		+	+	+	+	+	+
	TR	100					+	+	+					0	+			+	+		+	+	+	+	+	+
<b>1326</b> ethylene oxide oxirane dimethylene oxide C2H4O	gf	TR, GK	20	0	+	+	+	+	+			+		-				+								
	gf	TR, GK	40					+	+									+								
	gf	TR, GK	60					+	+									+								
	gf	TR, GK	80					+	+									+								
	gf	TR, GK	100					+	+									+								
<b>1328</b> ethyl methyl ketone methyl ethyl ketone (MEK) butanone CH3CH2COCH3 C4H8O	TR	20	-	+	+	+	-	+	+	-	-	+		-	0	-	-	+	+		+	+	+	+	+	+
	TR	40		0	0	0		+	+		-	0			0			+	+		+	+	+	+	+	+
	TR	60		-	0	0		+	+		-	0						+	+		+	+	+	+	+	+
	TR	80					+	+										+			+	+	+	+	+	+

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Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1329</b> potassium hexacyanoferrate(II) potassium ferrocyanide prussiate, yellow K4Fe(CN)6 C6FeK4N6	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	0	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	80					+	+	+					+	+	+	+	+		+	+	+	+	+	+
	wä	10%	100					+	+	+							+	+	+				+	+	+	+
	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+		+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+					+	+	+	+	+		+	+	+	+	+	+
	wä	GL	100					+	+	+							+	+	+				+	+	+	+
<b>1330</b> potassium hexacyanoferrate(III) potassium ferricyanide prussiate, red K3Fe(CN)6 C6FeK3N6	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	0	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	80					+	+	+					+	+	+	+	+		+	+	+	+	+	+
	wä	10%	100					+	+	+							+	+	+				+	+	+	+
	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+		+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+					+	+	+	+	+		+	+	+	+	+	+
	wä	GL	100					+	+	+							+	+	+				+	+	+	+
<b>1331</b> fatty alcohols	TR		20	+	+	+	+	+	+	+	+	+	0	-	+	+	+	+	+	+	+	+	+	+	+	+
	TR		40	+	+	+	+	+	+	+	+	+	0		+	+	+	+	+	+	+	+	+	+	+	+
	TR		60	0	+	0	0	+	+	+		0			+	+	+	+	+	+	+	+	+	+	+	+
	TR		80					+	+	+							+	+	+		+	+	+	+	+	+
	TR		100					+	+	+							+	+	+				+	+	+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1332 alkyl sulfates  ROSO3X	fatty alcohol sulfates	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	0	0	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+								+	+			+	+	+	+	+	+
		100					+	+	+	+	+								+	+			+	+	+	+	+	+
1333	triglyceride	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1335 carboxylic acids > C6  RCO2H	fatty acids > C6	20					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1336 F2	fluorine	20	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0										
		40																										
		60																										
		80																										
		100																										
1337 HBF4	fluoroboric acid	20					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1338 hexafluorosilicic acid fluorosilicic acid H2SiF6 H2F6Si	wä	10%	20	+	+	+		+	+	+					+	+	+	+	+	+	+	+				+		
	wä	10%	40	+	+	+		+	+	+					+	+	+	+	+	+	+	+				+		
	wä	10%	60		+	+		+	+	+								+										
	wä	10%	80					+	+	+								+										
	wä	10%	100					+	+	+								+										
	wä	30%	20	+	+	+		+	+	+				-	+	+	+	+	+	+							+	
	wä	30%	40	+	+	+		+	+	+					+	+	+	+	+	+							+	
	wä	30%	60		+	+		+	+	+								+										
	wä	30%	80					+	+	+									+									
	wä	30%	100					+	+	+									+									
	wä	35%	20	+	+	+		+	+	+				-	+	+	+	+	+	+							+	
	wä	35%	40	+	+	+		+	+	+					+	+	+	+	+	+							+	
	wä	35%	60		+	+		+	+	+								+										
	wä	40%	20	+	+	+		+	+	+				-	+	+	+	+	+	+							+	
	wä	40%	40	+	+	+		+	+	+								+			+						+	
	wä	40%	60		+	+		+	+	+								+										

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1339	hydrofluoric acid	20	wä	+	+	+	-	+	+	+	-	0	+	-	-	+	+	+	+	-	-	-	-	-	-	-	
		40	wä	+	+	+	-	+	+	+	-	+	-	-	-	+	+	+	+	-	-	-	-	-	-	-	
		60	wä	0	+	0	-	+	+	+	-	0	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-
		80	wä			0	-	+	+	+	-	0	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
		100	wä				-	+	+	+	-		-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
		20	wä	0	+	+	-	+	+	+	-	0	+	0	-	-	+	+	+	+	-	-	-	-	-	-	-
		40	wä	0	+	+	-	+	+	+	-	+	+	0	0	-	+	+	+	+	-	-	-	-	-	-	-
		60	wä	-			-	+	+	+	-								+	+	-	-	-	-	-	-	-
		80	wä				-	+	+	+	-								+	+	-	-	-	-	-	-	-
		100	wä				-	+	+	+	-								+	+	-	-	-	-	-	-	-
		20	wä	0	+	+	-	+	+	+	-	0	+	0	-	-	+	+	+	+	-	-	-	-	-	-	-
		40	wä	-	+	0	-	+	+	+	-	0	0	-	-	+	+	+	+	-	-	-	-	-	-	-	-
		60	wä				-	+	+	+	-	0				0	0	+	+	-	-	-	-	-	-	-	-
		80	wä				-	+	+	+	-								+	+	-	-	-	-	-	-	-
		20	wä	-	+	0	-	+	+	+	-	0	-	-	-	0	0	+	+	-	-	-	-	-	-	-	-
		40	wä		0	0	-	+	+	+	-	0				0	0	+	+	-	-	-	-	-	-	-	-
		60	wä				-	+	+	+	-								+	+	-	-	-	-	-	-	-
		20	wä	-	+	-	-	+	+	+	-	-	-	-	-	0	0	+	+	-	-	-	-	-	-	-	-
		40	wä				-	+	+	+	-					0	0	+	+	-	-	-	-	-	-	-	-
		60	wä				-	+	+	+	-								+	+	-	-	-	-	-	-	-

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
<b>1340</b> formaldehyde methanal H2C=O CH2O	wä	15%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	15%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	15%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	15%	80						+	+								+	+						+	+	+	
	wä	15%	100							+	+								+						+	+	+	
	wä	30%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	30%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
	wä	30%	60	0	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+
	wä	30%	80							+	+							+	+						+	+	+	+
	wä	30%	100							+	+								+						+	+	+	+
	wä	40%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	40%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
	wä	40%	60	0	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+
	wä	40%	80							+	+							+	+						+	+	+	+
	wä	40%	100							+	+							+							+	+	+	+
<b>1341</b> formamide formic acid amide HCONH2 CH3NO	TR		20	-	+	+	+		+	+			+	+	+	0	0	+	+		+	+	+	+	+	+	+	
	TR		40		+	+	+		+	+			+	+	+	0	0	+	+		+	+	+	+	+	+	+	
	TR		60		+	+	+		+	+			-	+	0	0	+	+		+	+	+	+	+	+	+	+	
	TR		80						+	+								+						+	+	+	+	
	TR		100						+	+								+						+	+	+	+	
<b>1342</b> Freon 11 (CFC-11, F-11) trichlorofluoromethane Frigen 11 CCI3F	gf	TR, GK	20	+	-	-	-	+	+	+			-	+	-	0	0	-										
	gf	TR, GK	40					+	+	+																		
	gf	TR, GK	60					+	+	+																		
	gf	TR, GK	80					+	+	+																		
	gf	TR, GK	100					+	+	+																		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1343 1,1,2,2-tetrachloro-1,2-difluoroethane  CCl2FCCl2F C2Cl4F2  P	TR	20	+	-	-	-	+	+	+	+	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TR	40	+	-	-	-	+	+	+	+	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TR	60	+	-	-	-	+	+	+	+	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TR	80	+	-	-	-	+	+	+	+	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	TR	100	+	-	-	-	+	+	+	+	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1344 1,2,2-trichloro-1,1,2-trifluoroethane  CClF2CCl2F C2Cl3F3  P	TR	20	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	TR	40	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	TR	60	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	TR	80	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	TR	100	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
1345 dichlorodifluoromethane  CCl2F2	gf, TR, GK	20	+	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+	+	+	
	gf, TR, GK	40	+	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+	+	+	
	gf, TR, GK	60	+	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+	+	+	
	gf, TR, GK	80	+	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+	+	+	
	gf, TR, GK	100	+	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+	+	+	
1346 dichlorofluoromethane  CHCl2F	gf, TR, GK	20	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	gf, TR, GK	40	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	gf, TR, GK	60	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	gf, TR, GK	80	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	gf, TR, GK	100	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1347 chlorodifluoromethane  CHClF2	gf, TR, GK	20	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	gf, TR, GK	40	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	gf, TR, GK	60	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	gf, TR, GK	80	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	gf, TR, GK	100	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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## Chemical Resistance

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1348	fruit juices	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1349	D-fructose	wä VL 20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä VL 40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä VL 60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä VL 80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä VL 100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
1350	furan	TR 20	-				+	+	+																		
		TR 40					-	+	+																		
C4H4O	P																										
1351	furfural	TR 20	-	+	+	+	-	+	+																		
		TR 40		+				+	+																		
		TR 60		0				+	+																		
		TR 80						+	+																		
		TR 100						+	+																		

**Abbreviations:** P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution

GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution

+ = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	AI2O3	AI2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1352</b> furfuryl alcohol 2-furylmethanol 2-hydroxymethylfuran C5H6O2	TR	20	-	+	+	+	+	+	+	-	+	+			0	-	-	+	+		+	+	+	+	+	+	
	TR	40		+	0	0	+	+	+		+	0						+	+		+	+	+	+	+	+	
	TR	60		+	0	0	0	+	+			0						+	+		+	+	+	+	+	+	
	TR	80						+	+										+					+	+	+	
	TR	100						+	+										+					+	+	+	
<b>1353</b> Genapol X-080 fatty alcohol ethoxylate isoC13O(EO)8 (CH3)2CH(CH2)10O(CH2CH2O)8H C29H60O9	TR	20						+	+							+	+	+	+		+	+	+	+	+	+	
	TR	40						+	+							+	+	+	+		+	+	+	+	+	+	
	TR	60						+	+									+	+		+	+	+	+	+	+	
	TR	80						+	+									+	+		+	+	+	+	+	+	
	TR	100						+	+												+		+	+	+	+	
<b>1356</b> gelatine		20	+	+	+	+	+	+	+			+		+	+	+	+									+	
		40	+	+	+	+	+	+	+			+		+	+	+	+									+	
		60		+	+	+	+	+	+			+															
		80						+	+	+																	
		100							+	+																	
<b>1358</b> glutamic acid 2-aminoglutaric acid HO2CCH2CH2CH(NH2)CO2H C5H9NO4	wä	VL	20	+	+	+	+	+	+			+						+	+	+	+	+	+			+	
	wä	VL	40		+	+	+		+	+		+						+	+	+	+	+	+			+	
	wä	VL	60		+	+	+		+	+		+						+	+	+	+	+	+			+	
	wä	VL	80						+	+								+	+		+	+	+			+	
	wä	VL	100						+	+									+							+	
<b>1359</b> glycolic acid hydroxyacetic acid HOCH2CO2H C2H4O3	wä	37%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	
	wä	37%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	
	wä	37%	60	0	+	0	0	+	+	+		0		+	+	+	+	+	+	+	+	+	+				
	wä	37%	80					+	+	+								+	+								
	wä	37%	100					0	+	+								+	+								

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GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution

+ = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537					
<b>1360</b>	<b>glycerol</b> propanetriol  HOCH2CH(OH)CH2OH C3H8O3	TR	TR	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+				
		TR	TR	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		TR	TR	60	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		TR	TR	80			+	+	+	+	+				+			+	+	+	+	+					+	+	+	+	+		
		TR	TR	100						+	+							+	+	+	+	+					+	+	+	+	+		
		TR	TR	120							+	+										+					+	+	+	+	+		
<b>1361</b>	<b>3-chloro-1,2-propanediol</b>  ClCH2CH(OH)CH2OH C3H7ClO2	TR	TR	20	+	+	+	+	+	+				+		-	+	0	0		+		+	+	+	+	+	+	+	+			
		TR	TR	40	0	+			+	+	+							+			+		+	+	+	+	+	+	+	+	+		
		TR	TR	60		+			+	+	+							+				+		+	+	+	+	+	+	+	+	+	
		TR	TR	80					+	+	+											+					+	+	+	+	+	+	
		TR	TR	100							+	+										+					+	+	+	+	+	+	
<b>1362</b>	<b>uric acid</b> 2,6,8-trihydroxypurine  C5H4N4O3	wä	GL	20	+	+	+	+	+	+	+	0		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		wä	GL	40	+	+	+	+	+	+	+				+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+				+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+							+			+	+										+	+
		wä	GL	100							+	+									+	+										+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1363 urea carbonic acid diamide carbamide H2NCONH2 CH4N2O	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	100							+	+							+	+					+	+	+	+
	wä	30%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	30%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	30%	60	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	30%	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	30%	100					0	+	+								+	+					+	+	+	+
	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	100						+	+								+	+					+	+	+	+
1364 n-heptane CH3(CH2)5CH3 C7H16	TR		20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	TR		40		0	0	0	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	+	
	TR		60		0	0	0	+	+	+	+	0	0		+	+	+	+	+	+	+	+	+	+	+	+	
	TR		80					+	+	+	0						+	+			+	+	+	+	+	+	
	TR		100					+	+	+							+	+			+	+	+	+	+	+	
1365 n-hexane CH3(CH2)4CH3 C6H14	TR		20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	TR		40		+	0	0	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	+	
	TR		60		0	-	-	+	+	+	0	-			+	+	+	+	+	+	+	+	+	+	+	+	

**Abbreviations:** P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution  
 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1366	1,2,6-hexanetriol 1,2,6-trihydroxyhexane HO(CH2)4CH(OH)CH2OH C6H14O3	TR	20	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		TR	40	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		TR	60	0	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	80						+	+				-	0	+	+	+	+	+				+	+	+	+	
		TR	100						+	+					0	+	+	+	+	+				+	+	+	+	
1370	honey		20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+		
			40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	
			60		0	+	+			+	+			+				+	+	+	+	+	+	+	+	+	+	+
			80							+	+							+	+		+	+	+	+	+	+	+	+
			100							+	+						+	+						+	+	+	+	+
1371	hydrazine diamine H2NNH2 H4N2	TR	20	+	+	+	+	-	+	+			+															
		TR	40		+	+	+		+	+			+															
		TR	60		+	+			+	+			+															
		TR	80						+	+																		
		TR	100						+	+																		
1372	hydrazine hydrate hydrazinium hydroxide H2NNH2 • H2O H6N2O	TR	20	+	+	+	+	-	+	+	-		+		-	+	-	+	+									
		TR	40		+	+			+	+			+		+			+	+									
		TR	60		+	+			+	+			+						+									
		TR	80						+	+									+									
1373	hydroquinone 1,4-dihydroxybenzene quinol C6H4-1,4-(OH)2 C6H6O2	wä	GL	20	+	+	+	+	+	+		-	+					+	+	+	+	+	+	+	+	+		
		wä	GL	40	+	0	+	+	+	+	+		+						+	+	+	+	+	+	+	+	+	
		wä	GL	60		-			+	+	+								+	+		+	+	+	+	+	+	
		wä	GL	80					+	+	+								+	+		+	+	+	+	+	+	
		wä	GL	100					+	+	+								+		+		+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1374</b> hydroxylamine sulfate  (H3NOH)2SO4 H8N2O6S	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	60		+	+	+	+	+	+	+	+	+													
	wä	VL	80						+	+																
	wä	VL	100						+	+																
<b>1377</b> isooctane  2,2,4-trimethylpentane isobutyltrimethylmethane (CH3)2CHCH2C(CH3)3 C8H18		TR	20	+	+	+	+	+	+	-		+		+	-	+	+	+	+	+	+	+	+	+	+	+
		TR	40		0	0	0	+	+			0				+	+	+	+	+	+	+	+	+	+	+
		TR	60		0	-	-	+	+			-							+	+	+	+	+	+	+	+
		TR	80			-	-	+	+			-								+	+		+	+	+	+
		TR	100					+	+	+									+	+		+	+	+	+	+
<b>1378</b> 2-propanol  Isopropyl alcohol isopropanol (CH3)2CHOH C3H8O		TR	20	+	+	+	+	+	+	-		+		0	+	+	+	+	+	+	+	+	+	+	+	+
		TR	40	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	+
		TR	60	0	+	+	+	+	+		0	+		-	0	+	+	+	+	+	+	+	+	+	+	+
		TR	80					0	+	+						0	0	+	+			+	+	+	+	+
<b>1379</b> liquid manure			20		+	+	+		+	+		+														
			40		+	+	+		+	+		+														
			60		+	+	+		+	+		+														
			80						+	+																
			100						+	+																
<b>1380</b> iodine	gf	TR, GK	20	-				+	+	+			-													
	gf	TR, GK	40	-				+	+	+																
	gf	TR, GK	60	-				+	+	+																
	gf	TR, GK	80						+	+																
	gf	TR, GK	100						+	+																

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## Chemical Resistance

Release Date: 2023-04-24

		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
<b>1381</b>	<b>iodine potassium iodide solution</b> potassium polyiodide solution	wä	3% I2	20	0	+	+	+	+	+	+			+	-	+	+	+	+	+	+	-	+	+	+	+	+	+	+		
		wä	3% I2	40	-	+	+	+	+	+	+				+		+	+	+	+	+	+		+	+	+	+	+	+	+	
		wä	3% I2	60	-	+	+	+	+	+	+				+		+	+	+	+	+	+		+	+	+	+	+	+	+	+
		Kxly	wä	3% I2	80					+	+	+										+	+		+	+					
		lyKx	wä	3% I2	100					+	+	+										+	+		+	+					
<b>1383</b>	<b>hydriodic acid</b>	wä	VL	20	+				+	+	+									+	+	-	+	+	+						
		wä	VL	40	0				+	+	+										+	+		+	+	+					
		wä	VL	60					+	+	+										+	+		+	+	+					
		wä	VL	80					+	+	+																				
		HI	wä	VL	100					+	+	+																			

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1384 potassium hydroxide  KOH HKO	10%	20	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
		40	+	+	+	+	-	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+
	15%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	0	0	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
	25%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	0	0	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
	40%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	0	0	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
	50%	20	+	+	+	+	-	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	0	0	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
	100	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
	100	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
	100	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
	100	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
	100	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1385  KNO3	potassium nitrate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
1386  acetic acid potassium salt  CH3CO2K C2H3KO2	potassium acetate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1387  potassium bicarbonate  KHCO3 CHKO3	potassium hydrogencarbonate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1388  K2Cr2O7 Cr2K2O7	potassium dichromate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
<b>1389</b> potassium bisulfate KHSO4 HKO4S	potassium hydrogensulfate 30%	20	+	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+			+		+		+	+	+	+	+	+	+	+	+	+	+	+	+
		60		+	+	+	+	+	+			+		+		+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+			+		-		+	+	+	+	+	+	+	+	+	+	+	+	+
		100							+	+								+	+									+
<b>1390</b> potassium bisulfite KHSO3 HKO3S	potassium hydrogensulfite GL	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+			+		+		+	+	+	+	+		+	+	+	+	+	+	+
		60		+	+	+		+	+			+		+		+	+	+	+	+		+	+	+	+	+	+	+
		80			+	+		+	+			+		-		+	+	+	+	+		+	+	+	+	+	+	+
		100							+	+								+	+									+
<b>1391</b> tartar L(+)-tartaric acid monopotassium salt KO2CCH(OH)CH(OH)CO2H C4H5KO6	potassium hydrogen-L-tartrate GL	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+			+						+	+	+	+	+	+	+	+	+	+	
		60		+	+	+	+	+	+			+						+	+	+	+	+	+	+	+	+	+	
		80					+	+	+									+	+									+
		100					+	+	+									+	+									+
<b>1392</b> K3BO3 BK3O3	potassium borate VL	20	+	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+									+	+			+	+	+	+	+	+	+
		100					+	+	+									+	+									+
		20	+	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+									+	+			+	+	+	+	+	+	+
		100					+	+	+									+	+									+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1393 KBrO3 BrKO3	potassium bromate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	0	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1394 KBr BrK	potassium bromide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1395 potash K2CO3 CK2O3	potassium carbonate	wä	10%	20	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	10%	40	+	+	+	+	-	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	60	0	+	+			+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	80						+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+
		wä	10%	100						+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+
		wä	50%	20	+	+	+	+	-	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+
		wä	50%	40	+	+	+	+	-	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
		wä	50%	60	0	+	+			+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+
		wä	50%	80						+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+
		wä	50%	100						+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+
		wä	GL	20	+	+	+	+	-	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	-	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+			+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80						+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100						+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1396  KClO3 ClK03	potassium chlorate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80							+	+																	+
		wä	GL	100							+	+																	
1397  KCl ClK	potassium chloride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	100						+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	
1398  KClO2 ClK02	potassium chlorite	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80						+	+	+																	
		wä	GL	100						+	+	+																	
1399  K2CrO4 CrK2O4	potassium chromate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80						+	+	+																	
		wä	GL	100						+	+	+																	
1400  KOCN CKNO	potassium cyanate	wä	GL	20						+	+											+	+	+					
		wä	GL	40							+	+											+	+	+				
		wä	GL	60							+	+											+	+	+				
		wä	GL	80							+	+																	
		wä	GL	100							+	+																	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1401 KCN CKN	potassium cyanide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	-	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+
1402 KF FK	potassium fluoride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60		+	+		+	+	+		+		+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+			0	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100				0	+	+	+								+	+	+	+	+	+	+	+	+
1403 KOCI CIKO	potassium hypochlorite	wä	13%	20	+	0	0	0	+	+	+		0		-	+	+	+	+	+	-	+	+	+	-	-	+
		wä	13%	40	+	0	-	-	0	+	+		-			0	+	+	+	+	+	+	+	+	+	+	+
		wä	13%	60	0				-	+	+								+	+	+	+	+	+	+	+	+
		wä	13%	80					+	+									+	+	+	+	+	+	+	+	+
		wä	13%	100					+	+									+	+	+	+	+	+	+	+	+
1404 KIO3 IKO3	potassium iodate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+			+	+	+								+	+	+	+	+	+	+	+	
		wä	GL	60					+	+	+								+	+	+	+	+	+	+	+	
		wä	GL	80					+	+	+								+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+								+	+	+	+	+	+	+	+	
1405 KI IK	potassium iodide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80			+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+								+	+	+	+	+	+	+	+	

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1406  K3B3O6 B3K3O6	potassium metaborate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1407  KNO2	potassium nitrite	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+	+		0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+
1408  KClO4 ClKO4	potassium perchlorate	wä	VL	20	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	VL	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	60	0		+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	80					+	+	+	+							+	+	+	+	+	+	+	+	+	+
		wä	VL	100					+	+	+	+							+	+	+	+	+	+	+	+	+	+
		wä	GL	20	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+	+							+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+							+	+	+	+	+	+	+	+	+	+
1409  potassium manganate(VII)  KMnO4	potassium permanganate	wä	6%	20	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	6%	40	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	6%	60	0	0	0	0	+	+	+	+	0		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	6%	80					+	+	+	+							+	+	+	+	+	+	+	+	+	+
		wä	6%	100					+	+	+	+							+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1410 potassium persulfate  K2S2O8 K2O8S2	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+					+	+	+	+	+							+
	wä	GL	100						+	+						+	+	+	+							
1411 potassium dihydrogenphosphate  KH2PO4 H2KO4P	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+					+	+	+	+	+		+	+				+
	wä	GL	100					+	+	+						+	+	+	+							+
1412 potassium sulfate  K2SO4 K2O4S	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	+	+	+	+	+	+		+	+	+	+	+		+	+	+			+
	wä	GL	100					+	+	+					+	+	+	+								+
1413 potassium sulfide  K2S	wä	VL	20	+	+	+	+	0	+	+		+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
	wä	VL	40	+	+	+	+	0	+	+		+	+	+			+	+	+	+	+	+	+	+	+	+
	wä	VL	60	0	+	+	+	0	+	+		+	+	+			+	+		+	+	+	+	+	+	+
	wä	VL	80						+	+							+	+								+
	wä	VL	100						+	+							+	+								+
1414 potassium sulfite  K2SO3 K2O3S	wä	GL	20	+	+			+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+			+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+			+	+	+					+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+						+	+			+	+	+	+	+	+	+
	wä	GL	100						+	+						+	+									+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1415</b> <b>potassium L-tartrate</b> L(+)-tartaric acid dipotassium salt KO2CCH(OH)CH(OH)CO2K C4H4K2O6	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+	+							+	+							+
	wä	GL	100					+	+	+								+	+							+
<b>1417</b> <b>(+/-)-borneol</b> C10H18O		TR	20	-	-	-	-	+	+	+					0	+	+		+		+	+	+		+	+
		TR	40					+	+	+								+		+	+	+				
		TR	60						+	+								+		+	+	+				
		TR	80						+	+								+		+	+	+				
		TR	100						+	+								+		+	+	+				
<b>1420</b> <b>sodium hexafluorosilicate</b> sodium fluorosilicate Na2SiF6 F6Na2Si	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					-	+	+								+	+							
	wä	GL	100						+	+								+	+							
<b>1421</b> <b>silicic acid</b> orthosilicic acid H4SiO4 = Si(OH)4 H4O4Si	wä	GK	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GK	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GK	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GK	80					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+
	wä	GK	100					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1423	carbon dioxide	gf	TR, GK	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+										
		gf	TR, GK	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+									
		gf	TR, GK	60	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+									
		gf	TR, GK	80			+	+	+	+	+				+			+	+	+	+	+								
		gf	TR, GK	100						+	+	+							+	+	+	+								
		gf	TR, GK	120						+	+	+																		
1424	carbon monoxide	gf	TR, GK	20	+	+	+	+	+	+	+			+		+	+	+	+											
		gf	TR, GK	40	+	+	+	+	+	+	+			+		+	+	+	+											
		gf	TR, GK	60	+	+	+	+	+	+	+		+	+		+	+	+	+											
		gf	TR, GK	80			+	+	+	+	+				+			+	+	+										
		gf	TR, GK	100						+	+	+							+	+										
		gf	TR, GK	120						+	+	+																		
1425	mixed acid: HCl 27%, HNO3 18%	wä		20	0	-	-	-	+	+	+	-	-	-	-	-	-	0	0	+	+	-	+		+	-	-	-		
		wä		40	-					+	+										+					+				
		wä		60						+	+																			
		wä		80						+	+																			
		wä		100						+	+																			
1426	creosote			20	-					+	+		-			-	-			+	+		+	+	+	+	+	+	+	
				40						+	+										+	+		+	+	+	+	+	+	+
				60						+	+										+	+		+	+	+	+	+	+	+
				80						+	+										+	+		+	+	+	+	+	+	+
				100						+	+											+		+		+	+	+	+	+
				120						+	+													+		+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1427 cresol (o-, m-, a. p-) methylphenol (o-, m-, a. p-) CH3C6H4OH C7H8O	GL	20	0	+	+	+	+	+	+	+	+	-	0	-	+	+	+	+	+	+	+	+	+	+	+	+
	GL	40		+	+	+	+	+	+	+			0		+	+	+	+			+	+	+	+	+	+
	GL	60			+	+	+	+	+	+							+	+			+	+	+	+	+	+
	GL	80					0	+	+	+							+	+			+	+	+	+	+	+
	GL	100						+	+	+							+	+			+	+	+	+	+	+
1428 cresol sulfonic acid CH3C6H3(OH)SO3H C7H8O4S	GL	20	+	+					+	+					-	-	+	+	+	+	+	+	+			+
	GL	40	+						+	+						0	0	+	+	+	+	+	+			+
	GL	60	+						+	+								+	+			+	+			+
	GL	80							+	+									+			+	+			+
	GL	100							+	+									+							+
1429 copper(I) chloride CuCl ClCu	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	GL	60		+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
	GL	80			+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
	GL	100							+	+								+	+	+						+
1431 copper(II) acetate arsenate(III) Schweinfurter Green 3Cu(AsO2)2 • Cu(CH3CO2)2 C4H6As6Cu4O16	GL	20	+	+	+	+			+	+				+	+	+	+									
	GL	40		+	+	+			+	+				+	+	+	+									
	GL	60							+	+				0	+	+	+									
	GL	80							+	+					+	+	+									
	GL	100							+	+																
1432 copper(II) carbonate basic copper(II) hydroxide carbonate copper(II) carbonate hydroxide CuCO3 • Cu(OH)2 CH2Cu2O5	GL	20	+	+	+	+			+	+				+	+	+	+	+	+		+	+	+			+
	GL	40	+	+	+	+			+	+				+	+	+	+	+	+		+	+	+			+
	GL	60		+	+	+			+	+				0	+	+	+	+	+		+	+	+			+
	GL	80							+	+					+	+	+	+	+							+
	GL	100							+	+								+	+							+

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1433  CuCl2 Cl2Cu	copper(II) chloride	20	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	-	-	+	
		40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		60	+	+	+	+	+	+	+				0	+	+	+	+	+	+	+	+	+	+	+			+
		80					+	+	+						+	+	+	+	+	+	+	+	+	+			
		100						+	+										+	+	+	+	+	+			
1434  CuCN CCuN	copper(I) cyanide	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+			+	
		40	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+			+	
		60		+	+	+	+	+	+			+		0	+	+	+	+	+		+	+	+			+	
		80					+	+	+						+	+	+	+	+							+	
		100						+	+										+							+	
1435  Cu(NO3)2 CuN2O6	copper(II) nitrate	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		30%	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	-				+	+	+						+	+	+	+	+	+	+	+	+	+	+	+	+
		30%						+	+	+								+	+	+	+	+	+	+	+	+	+
		100						+	+	+								+	+	+	+	+	+	+	+	+	+
		50%	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+						+	+	+	+	+	+	+	+	+	+	+	+	+
		100						+	+									+	+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
60	0	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	+	+		
80					+	+	+						+	+	+	+	+	+	+	+	+	+	+	+	+		
100						+	+									+	+	+	+	+	+	+	+	+	+		

**Abbreviations:** P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution  
 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1436 copper(II) sulfate  CuSO4 CuO4S	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+					+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	100						+	+								+	+	+	+			+	+	+	+
1437 copper(II) fluoride  CuF2	wä	VL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	
	wä	VL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+				
	wä	VL	60		+	+			+	+			0	+	+	+	+	+	+	+	+	+	+				
	wä	VL	80						+	+				+	+	+	+	+	+	+	+	+	+				
	wä	VL	100						+	+							+	+	+	+	+	+	+				
1438 copper tetramine compounds	wä	VL	20	+					+	+				+	+	+	+	+	+	+	+	+	+			+	
	wä	VL	40						+	+				+	+	+	+	+	+	+	+	+	+			+	
	wä	VL	60						+	+			0	+	+	+	+	+	+	+	+	+	+			+	
	wä	VL	80						+	+				+	+	+	+	+	+	+	+	+	+			+	
	wä	VL	100						+	+							+	+	+	+	+	+	+			+	
1439 D(+)-lactose D(+)-lactobiose milk sugar  C12H22O11	wä	VL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	80			+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	VL	100					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	100					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1440	lanolin	20	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	-	0	0	0	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	-				+	+	+					-	-	-	-		+		+	+	+	+	+	+	+	+
		100	-				+	+	+					-	-	-	-		+		+	+	+	+	+	+	+	+
		120	-				+	+	+					-	-	-	-	+		+	+	+	+	+	+	+	+	+
1441	latex	20		+	+	+		+	+			+	+		+	+												
		40		+	+	+		+	+			+																
		60		+	+	+		+	+			+																
		80						+	+																			+
		100						+	+																			
1442	lauric acid dodecanoic acid CH3(CH2)10CO2H C12H24O2	TR 20					+	+	+												+	+	+					
		TR 40					+	+	+													+	+	+				
		TR 60					+	+	+													+	+	+				
		TR 80					+	+	+													+	+	+				
		TR 100					+	+	+																			
		TR 120					+																					
1443	lauroyl chloride lauric acid chloride dodecanoyl chloride CH3(CH2)10COCl C12H23ClO	TR 20	-				+	+	+									+	+		+	+	+					
		TR 40					+	+	+									+	+		+	+	+					
		TR 60					+	+	+									+			+	+	+					
		TR 80					+	+	+									+			+	+	+					
		TR 100					+	+	+									+			+		+					
		TR 120					+	+										+			+							

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1444 lauryl alcohol 1-dodecanol CH3(CH2)11OH C12H26O	TR	20	+				+	+										+	+		+	+	+	+	+	+	+
	TR	40	+				+	+										+	+		+	+	+	+	+	+	+
	TR	60	+				+	+										+	+		+	+	+	+	+	+	+
	TR	80								+	+							+	+		+	+	+	+	+	+	+
	TR	100								+	+							+	+		+	+	+	+	+	+	+
	TR	120								+	+							+	+		+	+	+	+	+	+	+
1446 cod-liver oil fish liver oil		20	+	+	+	+			+	+				-			+	+		+	+	+	+	+	+	+	+
		40		+					+	+							+	+		+	+	+	+	+	+	+	+
		60		0					+	+							+	+		+	+	+	+	+	+	+	+
		80							+	+							+	+		+	+	+	+	+	+	+	+
		100							+	+							+	+		+	+	+	+	+	+	+	+
		120							+	+							+	+		+	+	+	+	+	+	+	+
1447 light petrol petroleum ether benzine P	TR	20	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+		+	+	+	+	+	+	+	+
	TR	40	+	0	0	0	+	+	+	+	0		0		+	+	+	+		+	+	+	+	+	+	+	+
	TR	60	+	-	-	-	+	+	+		-		-		0	0	+	+		+	+	+	+	+	+	+	+
	TR	80					+	+	+						-	-	+	+		+	+	+	+	+	+	+	+
	TR	100					+	+	+								+	+		+	+	+	+	+	+	+	+
	TR	120					+	+	+								+	+		+	+	+	+	+	+	+	+
1448 light oil		20					+	+	+								+	+		+	+	+	+	+	+	+	+
		40					+	+	+								+	+		+	+	+	+	+	+	+	+
		60					+	+	+								+	+		+	+	+	+	+	+	+	+
		80						+	+									+		+	+	+	+	+	+	+	+
		100						+	+									+		+	+	+	+	+	+	+	+
		120						+	+									+		+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1450	linseed oil	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		40	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80		-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		120							+										+		+		+	+	+	+	+	+	
1451	lighting gas, benzene-free	gf 20	+	+	+	+	+	+	+			+		+	-	+	+								+	+	+		
		gf 40	+							+	+																		
		gf 60								+	+																		
		gf 80								+	+																		
		gf 100								+	+																		
1452	liqueurs	H 20	+	+	+	+	+	+	+			+		+	+	+	+	+							+	+	+		
		H 40	+	+				+	+	+																			
		H 60						+	+	+																			
		H 80						+	+	+																			
		H 100							+	+																			
1453	linoleic acid cis,cis-9,12-octadecadienoic acid  H3C(CH2)4CH=CHCH2CH=CH(CH2)7CO2H C18H32O2	TR 20						+	+	+								+	+			+	+	+	+	+	+		
		TR 40						+	+	+									+	+			+	+	+	+	+	+	
		TR 60						+	+	+									+	+			+	+	+	+	+	+	
		TR 80						+	+	+										+	+			+	+	+	+	+	
		TR 100						+	+	+										+	+			+	+	+	+	+	
		TR 120						+	+	+										+	+			+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1455  LiBr BrLi	lithium bromide	wä	GL	20	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60		+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+					+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+							+	+	+	+	+	+	+	+	+
1456  Li2CO3 CLi2O3	lithium carbonate	wä	GL	20	+	+	+	+	-	+	+	-	+	+	+	0	0	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	-	+	+		+	+		+	-	-	+	+	+	+	+	+	+	
		wä	GL	60	0	+	+		-	+	+		+						+	+	+	+	+	+	+	
		wä	GL	80					+	+	+								+	+	+	+	+	+	+	
		wä	GL	100					+	+	+								+	+	+	+	+	+	+	
1457  LiCl CLi	lithium chloride	wä	GL	20	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80					+	+	+					+	+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+							+	+	+	+	+	+	+	+	
1459  LiOH HLiO	lithium hydroxide	wä	GL	20	+	+	+	+	-	+	+	-	+		+	-	-	+	+	+	+	+	+	+		
		wä	GL	40	+	+	+	+		+	+		+		+			+	+	+	+	+	+	+		
		wä	GL	60		+	+			+	+		+					+	+	+	+	+	+	+		
		wä	GL	80				-		+	+								+	+	+	+	+	+		
		wä	GL	100					+	+	+								+	+	+	+	+	+		
1460  Li2SO4 Li2O4S	lithium sulfate	wä	GL	20	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	60	0	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+		
		wä	GL	80					+	+	+					+	+	+	+	+	+	+	+	+		
		wä	GL	100					+	+	+							+	+	+	+	+	+	+		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1461	air	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		120					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1462	magnesium carbonate basic  4MgCO3 • Mg(OH)2	wä GL 20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL 60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL 80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL 100								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1463	magnesium chloride  MgCl2 Cl2Mg	wä 10% 20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10% 40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10% 60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10% 80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10% 100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL 20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL 40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL 60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL 80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL 100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1464 MgF2 F2Mg	magnesium fluoride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+		+	+	+					+	+	+	+	+	+	+							
		wä	GL	80					+	+	+					+	+	+	+	+	+								
		wä	GL	100					+	+	+							+	+	+	+								
1465 Mg(OH)2 H2MgO2	magnesium hydroxide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80					+	+	+					+	+	+	+	+	+			+					
		wä	GL	100					+	+	+							+	+	+	+								
1466 Mg(NO3)2 MgN2O6	magnesium nitrate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+							+	+	+	+								
1467 MgO	magnesium oxide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80					+	+	+							+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	100					+	+	+							+	+	+	+								

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1468 MgSO4 MgO4S	magnesium sulfate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
100								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
1469 MgSO3 MgO3S	magnesium sulfite	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1470 cis-2-butene-1,4-dioic acid HO2CCH=CHCO2H C4H4O4	maleic acid	20	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	
		60	0	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	
		80							+	+	+	+	+	+		-	-	+	+	+	+	+	+	+	+	+	+	
		100							+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	
1471 MnCl2 Cl2Mn	manganese(II) chloride	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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Release Date: 2023-04-24

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1472 manganese(IV) oxide  MnO2	TR	20	+																									
	TR	40																										
	TR	60																										
	TR	80																										
	TR	100																										
1473 manganese(II) sulfate  MnSO4 MnO4S	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	100					+	+	+								+	+	+	+		+				+	
1474 marmelade			20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			40	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			100					+	+	+								+	+								+	
1476 molasses			20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			80					+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			100					+	+	+								+	+								+	
1477 methane  CH4	gf	TR, GK	20	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+							+	+	+	
	gf	TR, GK	40					+	+	+	+							+							+	+	+	
	gf	TR, GK	60					+	+	+								+							+	+	+	
	gf	TR, GK	80					+	+	+								+							+	+	+	
	gf	TR, GK	100					+	+	+								+							+	+	+	

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Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1478</b> malonic acid propanedioic acid methanedicarboxylic acid CH2(CO2H)2 C3H4O4	wä	GL	20	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80							+	+							+	+							+
	wä	GL	100							+	+							+	+							+
<b>1479</b> methanol methyl alcohol  CH3OH CH4O		TR	20	+	+	+	+	+	+	+	-	+	+		-	+	-	+	+	+	+	+	+	+	+	+
		TR	40	+	+	+	+	+	+	+		+	+			+		+	+	+		+	+	+	+	+
		TR	60	0	+	+	+	+	+	+			+		0			+	+			+	+	+	+	+
<b>1480</b> methanesulfonic acid methylsulfuric acid  CH3SO3H CH4O3S	wä	73%	20					+	+	+	-				-		+	+	+	+		+	+	+		+
	wä	73%	40					+	+	+							+	+	+	+		+	+	+		+
	wä	73%	60					+	+	+							+	+	+	+		+	+	+		+
	wä	73%	80					+	+	+							+	+	+	+		+	+	+		+
	wä	73%	100						+	+								+	+							
		TR	20	0	+	0	0	+	+	+	-	-	0	-	-			+	+	+	-	+	+	+		+
		TR	40			-	-	+	+	+							-	+	+	+		+	+	+		+
		TR	60					0	+	+								+	+			+	+	+		+
		TR	80					0	+	+								+	+			+	+	+		+
		TR	100						+	+								+								
<b>1481</b> methyl acetate acetic acid methyl ester  CH3CO2CH3 C3H6O2		TR	20	-	+	+	+	+	+	+	-	-	+		-	-	-	-	+	+		+	+	+	+	+
		TR	40		0	0	0	0	+	+			0						+	+		+	+	+	+	+
		TR	60		-	-	-	-	+	+			-						+	+		+	+	+	+	+

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1482	methyllamine	wä	32%	20	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		aminomethane	wä	32%	40																								
			wä	32%	60																								
	CH3NH2																												
	CH5N	P																											
1483	methylbromide	gf	TR, GK	20	-	0	-	-	+	+	+																		
		bromomethane	gf	TR, GK	40																								
			gf	TR, GK	60																								
			gf	TR, GK	80																								
			gf	TR, GK	100																								
1484	methyl chloride	gf	TR, GK	20	-	0	-	-	+	+	+																		
		chloromethane	gf	TR, GK	40																								
			gf	TR, GK	60																								
			gf	TR, GK	80																								
			gf	TR, GK	100																								
1485	methylcyclohexane		TR	20		0	-	-		+	+																		
		hexahydrotoluene		TR	40		0				+	+																	
				TR	60						+	+																	
			C6H11CH3		TR	80					+	+																	
			C7H14	P		TR	100				+	+																	
1487	methyl formate		TR	20	-					+	+	-	-																
		formic acid methyl ester		TR	40					+	+																		
			HCO2CH3																										
	C2H4O2	P																											

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1488</b> methyl isobutyl ketone (MIBK) 4-methyl-2-pentanone isobutyl methyl ketone (CH3)2CHCH2COCH3 C6H12O	TR	20	-																								
	TR	40																									
	TR	60																									
	TR	80																									
<b>1489</b> methyl methacrylate methacrylic acid methyl ester  CH2=C(CH3)CO2CH3 C5H8O2	TR	20	-																								
	TR	40																									
	TR	60																									
	TR	80																									
<b>1490</b> methyl salicylate salicylic acid methyl ester 2-hydroxybenzoic acid methyl ester 2-(OH)C6H4CO2CH3 C8H8O3	TR	20	-	+	+	+		+	+	-	-	+						+	+		+	+	+	+	+	+	+
	TR	40		+	+	+		+	+			+						+	+		+	+	+	+	+	+	+
	TR	60						+	+									+	+		+	+	+	+	+	+	+
	TR	80						+	+									+			+	+	+	+	+	+	+
	TR	100						+	+									+			+		+	+	+	+	+
<b>1491</b> dimethyl sulfate sulfuric acid dimethyl ester  (CH3O)2SO2 C2H6O4S	TR	20	-					+	+	-			-	-	0	0		+	+		+	+	+	+	+	+	+
	TR	40						+	+									+	+		+	+	+	+	+	+	+
	TR	60						+	+									+	+		+	+	+	+	+	+	+
	TR	80						+	+									+			+		+	+	+	+	+
	TR	100						+	+									+			+		+	+	+	+	+
<b>1492</b> milk		20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
<b>1493</b> lactic acid 2-hydroxypropionic acid  CH3CH(OH)CO2H C3H6O3	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	60		+	+	+	0	+	+					0	0	0	+	+		+	+	+	+	+	+	+	
	wä	10%	80			+	+	0	+	+					-	0	0	+	+									
	wä	10%	100					-	+	+								+	+									
	wä	25%	20	+	+	+	+	+	+	+				-	+	+	+	+	+	+	+	+	+				+	
	wä	25%	40	+	+	+	+	+	+	+					+	+	+	+	+	+	+	+	+	+				+
	wä	25%	60		+	+	+											+	+		+	+	+	+				+
	wä	25%	80							+	+							+	+									
	wä	25%	100							+	+							+	+									
	wä	50%	20	+	+	+	+	+	+	+				-	+	+	+	+	+	+	+	+	+	+				+
	wä	50%	40	+	+	+	+	+	+	+					+	+	+	+	+	+	+	+	+	+				+
	wä	50%	60		+	+	+											+	+		+	+	+	+				+
	wä	50%	80							+	+							+	+									
	wä	50%	100							+	+							+	+									
	wä	90%	20	+	+	+	+	+	+	+				-	+	+	+	+	+		+	+	+	+	-	+	+	+
	wä	90%	40	0	+	+	+	+	+	+					+	+	+	+	+		+	+	+	+		+	+	+
	wä	90%	60		+	+	+											+	+		+	+	+	+		+	+	+
	wä	90%	80							+	+							+	+									
	wä	90%	100						+	+								+	+									
<b>1494</b> mineral oils			20	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	
			40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			60	+	0	0	0	+	+	+			0		+	+	+	+	+	+	+	+	+	+	+	+	+	
			80					+	+	+								+		+	+	+	+	+	+	+	+	
			100			-	-	+	+	+			-					+		+	+	+	+	+	+	+	+	
			120					+	+	+								+		+	+	+	+	+	+	+	+	

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1495	mixed acid: HNO3 20%, H2SO4 10%	20	+	0	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-
		40	+				+	+	+																	
		60					+	+	+																	
		80					+	+	+																	
		100					+	+	+																	
HNO3 20%, H2SO4 10%, H2O 70%																										
P																										
1496	mixed acid: HNO3 87%, H2SO4 10%	20	-	-	-	-	0	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		40						+	+																	
		60						+	+																	
		80						+	+																	
		100						+	+																	
HNO3 87%, H2SO4 10%, H2O 3%																										
P																										
1497	mixed acid: H2SO4 50%, HNO3 33%	20	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	+	+	-	+	+	-	-	-	
		40					+	+										+	+		+	+				
		60					+	+											+	+		+	+			
		80					+	+																		
		100					+	+																		
H2SO4 50%, HNO3 33%, H2O 17%																										
P																										
1498	mixed acid: H2SO4 50%, HNO3 50%	20	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		40					+	+																		
		60					+	+																		
		80					+	+																		
		100					+	+																		
H2SO4 50%, HNO3 50%, H2O 0%																										
P																										

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 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1499	mixed acid: H2SO4 18%, HNO3 15%, HF 5%	20	+	0	-	-	-	+	+	+	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	
		40	+				+	+	+						+	+	+										
		60	+				+	+	+									+									
		80	+				+	+	+									+									
		100	+				+	+	+									+									
H2SO4 18%, HNO3 15%, HF 5%, H2O 62%			P																								
1500	mixed acid: HNO3 50%, HF 10%	20	0	-	-	-	+	+	+	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-		
		40				+	+	+								+	+	+									
HNO3 50%, HF 10%, H2O 40%			P																								
1501	monochloroacetic acid ethyl ester	TR	20	-	+	+	+	+	+	-	-	+	-	0	0	0	+			+	+	+	+	+	+		
		TR	40		+	+	+	+	+			+					+			+	+	+	+	+	+	+	
		TR	60		+	+	+	+	+			+						+			+	+	+	+	+	+	
		TR	80					+	+												+	+	+	+	+	+	
		TR	100					+	+												+		+	+	+	+	
chloroacetic acid ethyl ester																											
ethyl chloroacetate																											
ClCH2CO2C2H5																											
C4H7ClO2																											
1502	monochloroacetic acid methyl ester	TR	20	-	+	+	+	+	+	-	-	+	-	+	0	0	+	+		+	+	+	+	+	+		
		TR	40		+	+	+	+	+			+					+	+		+	+	+	+	+	+	+	
		TR	60		+	+	+	+	+			+						+	+		+	+	+	+	+	+	
		TR	80					+	+											+	+	+	+	+	+	+	
		TR	100					+	+											+	+	+	+	+	+	+	
chloroacetic acid methyl ester																											
methyl chloroacetate																											
ClCH2CO2CH3																											
C3H5ClO2																											

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1503	mixed acid: HNO3 59%, HF 4,5%	wä	20	0	-	-	-	+	+	+	+	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-
		wä	40					+	+	+						+	+	+	+							
HNO3 59%, HF 4,5%, H2O 36,5%																										
P																										
1505	morpholine	TR	20	-	+	+	+	+	+	+	-	-	+	-	0		+	+		+	+	+	+	+	+	+
		TR	40		+	+	+	0	+	+		-	+				+	+		+	+	+	+	+	+	+
		TR	60		+	+	+		+	+		-	+				+	+		+	+	+	+	+	+	+
		TR	80						+	+								+						+	+	+
		TR	100						+	+								+						+	+	+
tetrahydro-1,4-oxazine																										
C4H9NO																										
1506	mixed acid: H2SO4 25%, HNO3 25%, HF 10%	wä	20	+	-	-	-	+	+	+	-	-	-	-	-	+	+	+	+		-	-	-	-	-	
		wä	40					+	+	+						+	+	+	+							
		wä	60					+	+	+							+	+	+							
		wä	80						+	+								+	+							
		wä	100						+	+								+	+							
H2SO4 25%, HNO3 25%, HF 10%, H2O 40%																										
P																										
1507	naphthalene	TR	20	-	+	+	+	+	+	+	-	+		+	-	+	+							+	+	
		TR	40		0	0	0	+	+	+		0		+		+	+							+	+	
		TR	60		0	-	-	0	+	+		-		+		+	+							+	+	
		TR	80						+	+														+	+	
		TR	100						+	+														+	+	
C10H8																										

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1508 naphthalene sulfonic acid (mixture of isomers)  C10H7SO3H C10H8O3S	TR	20	+	+					+	+																
	TR	40							+	+																
	TR	60							+	+																
	TR	80							+	+																
	TR	100							+	+																
1509 sodium acetate acetic acid sodium salt  CH3CO2Na C2H3NaO2	wä	GL	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+	
	wä	GL	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+	
	wä	GL	60		+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+	
	wä	GL	80			+	+	+	+	+			+		0	0	0	+	+		+	+			+	
	wä	GL	100						0	+	+						+	+							+	
1510 sodium aluminate  Na3[Al3O2(OH)8] H8Al3Na3O10	wä	VL	20	+	+	+	+		+	+				+			+	+		+	+	+				
	wä	VL	40	+	+	+	+		+	+				+			+	+		+	+	+				
	wä	VL	60	0	+	+			+	+				+			+	+		+	+	+				
	wä	VL	80			+			+	+							+	+		+	+	+				
	wä	VL	100						+	+							+	+								
1511 sodium arsenate  Na3AsO4 AsNa3O4	wä	GL	20						+	+											+	+	+			
	wä	GL	40						+	+											+	+	+			
	wä	GL	60						+	+											+		+			
	wä	GL	80						+	+													+			
	wä	GL	100						+	+																

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Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1512 sodium arsenite  NaH2AsO3 H2AsNaO3	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40																								
	wä	GL	60																								
	wä	GL	80																								
	wä	GL	100																								
1513 sodium hydrogencarbonate  sodium bicarbonate  NaHCO3 CHNaO3	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	0	+	+		+	+	+	+	+	+	+	+	+	+	+	+				+
	wä	GL	100						+	+							+	+									+
1514 sodium dichromate  Na2Cr2O7 Cr2Na2O7	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80					+	+	+								+	+		+	+	+				+
	wä	GL	100					+	+	+								+	+								+
1515 sodium hydrogensulfate  sodium bisulfate  NaHSO4 HNaO4S	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	0	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	80					+	+	+				0	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	100					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	40	0	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	60		+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	80					+	+	+				0	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	100					+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1517</b> sodium hydrosulfide NaSH HNaS	sodium hydrosulfide	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	0	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	+	+	+	+
		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80																									
		100																									
<b>1518</b> sodium bisulfite NaHSO3 HNaO3S	sodium bisulfite	20	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	0			+	+	+	+	+	+	+	+	+
		20	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+
<b>1519</b> sodium perborate NaBO3 BNaO3	sodium peroxoborate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	0	+	0	0	+	+	+	+	+	+	+	+	
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	+	+	+	+	+	+	+	+	
		80			+	+	+	+	+	+	+	+	+	+	0				+	+	+	+	+	+	+	+	
		100					+	+	+	+	+	+	+	+					+	+	+	+	+	+	+	+	
<b>1520</b> sodium bromate NaBrO3 BrNaO3	sodium bromate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	0	0	0	0	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	
		60					+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	
		80					+	+	+	+	+	+	+	+													
		100					+	+	+	+	+	+	+	+													

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		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1521	sodium bromide	wä	10%	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	10%	40	+	+	+	+	+	+	+		+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	60	0	+	+	+	+	+	+			+	+	+		+	+	+	+	+	+	+	+	+	+	+	+
		NaBr	wä	10%	80			+	+	+	+			+	+	+			+	+	+	+	+	+	+	+	+	+	+
		BrNa	wä	10%	100					+	+								+	+	+	+	+	+	+	+	+	+	+
		wä	48% (GL)	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	48% (GL)	40	+	+	+	+	+	+	+			+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
		wä	48% (GL)	60	0	+	+	+	+	+	+			+	+	+		+	+	+	+	+	+	+	+	+	+	+	+
		wä	48% (GL)	100						+	+											+	+	+	+	+	+	+	+
1522	sodium carbonate	wä	10%	20	+	+	+	+	0	+	+		+	+		+	+	+	+	+	+		+	+	+	+	+		
		soda	wä	10%	40	+	+	+	+	-	+	+		+	+		+	0	0	+	+		+	+	+	+	+	+	
		Na2CO3	wä	10%	60	0	+	+			+	+		+	+		+	-	-	+	+		+		+	+	+	+	
		CNa2O3	wä	10%	80			+			+	+					+				+	+				+	+	+	
		wä	10%	100						+	+										+	+				+	+	+	
		wä	GL	20	+	+	+	+	0	+	+			+	+		+	+	+	+	+	+		+	+	+	+	+	
		wä	GL	40	+	+	+	+	-	+	+			+	+		+	0	0	+	+		+	+	+	+	+	+	
		wä	GL	60	0	+	+			+	+			+	+		+	-	-	+	+		+		+	+	+	+	
		wä	GL	100			+			+	+						+				+	+				+	+	+	
1524	sodium chlorate	wä	GL	20	+	+	+	+	+	+			+			+	+	+	+	+	+		+	+	+	+	+		
		wä	GL	40	+	+	+	+	+	+			+			0	+	+	+	+	+		+	+	+	+	+	+	
		NaClO3	wä	GL	60	0	+	+	+	+	+			+			-	+	+	+	+	+		+	+	+	+	+	
		CINaO3	wä	GL	80					0	+	+					0	+	+	+	+	+				+	+	+	
		wä	GL	100						+	+						-			+	+								

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Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1525</b> sodium chloride	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
	table salt	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
	brine	wä	10%	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	
	NaCl	wä	10%	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
	CINa	wä	10%	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	26% (GL)	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+
		wä	26% (GL)	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+
		wä	26% (GL)	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
		wä	26% (GL)	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	26% (GL)	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
<b>1526</b> sodium chlorite	wä	10%	20	0	+	+	+	+	+	+				+		-	+	+	+	+	+				+	
		wä	10%	40			+	+	+	+				+		+	+	+	+		+	+				+
		wä	10%	60			0	0	+	+	+		0			+	+	+	+		+	+				+
	NaClO2	wä	10%	80					+	+	+															
	CINaO2	wä	10%	100				0	+	+																
		wä	50%	20	0	+	+	+	+	+	+		+		-	+	+	+	+	+		+	+			+
		wä	50%	40					+	+								+	+		+	+				+
		wä	50%	60					+	+								+	+		+	+				+
		wä	50%	100					+	+											+	+				+
<b>1527</b> sodium chromate	wä	VL	20	+	+	+	+	+	+	+			+		+	+	+	+	+		+	+			+	
		wä	VL	40	+	+	+	+	+	+			+		0	+	+	+	+		+	+				+
		wä	VL	60	0	+	+	+	+	+			+		-	+	+	+	+		+	+				+
	Na2CrO4	wä	VL	80					+	+	+							+	+		+	+				+
	CrNa2O4	wä	VL	100					+	+	+							+	+		+	+				+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1528</b> sodium citrate trisodium citrate citric acid trisodium salt HOC(CO2Na)(CH2CO2Na)2 C6H5Na3O7	wä	VL	20	+	+	+	+	+	+	+	+	+														+
	wä	VL	40	+	+	+	+	+	+		+	+				+	+	+	+	+	+	+				+
	wä	VL	60		+	+	+	+	+		+	+							+	+	+		+			+
	wä	VL	80						+	+									+	+						+
	wä	VL	100						+	+										+						
<b>1529</b> sodium cyanide NaCN CNNa	wä	GL	20	+	+	+	+	-	+	+	+	+		+	+	+	+	+	+		+	+	+			+
	wä	GL	40	+	+	+	+	-	+	+	+	+			+	0	0	+	+		+	+	+			+
	wä	GL	60	+	+	+		-	+	+	+	+			+	-	-	+	+		+		+			+
	wä	GL	80			+			+	+		+			+			+	+							+
	wä	GL	100						+	+									+							+
<b>1530</b> sodium fluoride NaF FNa	wä	GL	20	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+			+
	wä	GL	40	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+			+
	wä	GL	60		+	+		+	+	+		+		0	+	+	+	+	+	+	+	+	+			+
	wä	GL	80					+	+	+									+	+						+
	wä	GL	100				0	+	+										+	+						+
<b>1531</b> sodium formate formic acid sodium salt HCO2Na CHNaO2	wä	GL	20		+	+	+		+	+	+	+			+			+	+		+	+	+			+
	wä	GL	40		+	+	+		+	+	+	+			+			+	+		+	+	+			+
	wä	GL	60		+	+	+		+	+		+						+	+		+	+	+			+
	wä	GL	80						+	+									+	+		+	+	+		+
	wä	GL	100						+	+									+	+						+
<b>1533</b> sodium hypophosphite sodium phosphinate NaH2PO2 H2NaPO2	wä	GL	20	+	+	+	+		+	+		+			+			+	+	+	+	+	+			+
	wä	GL	40	+	+	+	+		+	+		+			+			+	+	+	+	+	+			+
	wä	GL	60	0	+	+	+		+	+		+						+	+		+	+	+			+
	wä	GL	80						+	+									+	+		+	+	+		+
	wä	GL	100						+	+									+	+						+

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1534 NaI INa	sodium iodide	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+						+	+	+	+	+	+	+	+	+	+
1535 lactic acid sodium salt CH3CH(OH)CO2Na C3H5NaO3	sodium lactate	20	+	+	+	+			+	+					+			+	+	+	+	+	+			+	
		40		+	+	+			+	+					+			+	+	+	+	+	+	+			+
		60							+	+								+	+	+	+	+	+	+			+
		80							+	+								+	+								+
		100							+	+								+	+								+
1536 NaNO3 NNO3	sodium nitrate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+	+						+	+			+	+	+	+	+	+
		100					+	+	+	+	+	+						+	+								+
1537 NaNO2 NNO2	sodium nitrite	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60		+	+	+	+	+	+	+	+	+		-	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	+	+	0					+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+							+	+								+
1538 NaClO4 ClNaO4	sodium perchlorate	20	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60		+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80							+	+						+	+	+	+	+	+	+	+	+	+	+	+
		100							+	+								+	+								+

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## Chemical Resistance

Release Date: 2023-04-24

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1539  Na2O2 Na2O2	sodium peroxide	wä	GL	20	+	0	0	0	+	+	+										+						
		wä	GL	40	+	-	-	-	+	+	+																
		wä	GL	60					+	+	+																
		wä	GL	80					+	+	+																
		wä	GL	100						+	+																
1540  sodium peroxodisulfate  Na2S2O8 Na2O8S2	sodium persulfate	wä	GL	20	+	+	+	+	+	+	+				+		-	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+				+			+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+				+			+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+				+			+	+	+	+	+	+	+	+	+	+
		wä	GL	100						+	+							+	+	+	+	+	+	+	+	+	+
1541  trisodium phosphate  Na3PO4 Na3O4P	sodium phosphate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+		+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+		0	+	+			+	+				+	+				+	+	+	+
		wä	GL	100						+	+		0						+	+							+
1542  sodium metasilicate soda water glass Na2SiO3 Na2O3Si	sodium silicate	wä	GL	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+		0	+	+			+		+	+	0	0	+	+		+	+	+	+	+
		wä	GL	80					-	+	+										+						+
		wä	GL	100						+	+										+						+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1543  Na2SO4 Na2O4S	sodium sulfate	wä 10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä 10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä 10%	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
wä GL	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
1544  Na2S	sodium sulfide	wä GL	20	+	+	+	+	0	+	+			+		+	+			+	+	+	+	+		+	+			
		wä GL	40	+	+	+	+	0	+	+			+		+	+			+	+	+	+	+		+	+			
		wä GL	60	0	+	+	+	0	+	+			+		+	+			+		+	+	+		+	+			
		wä GL	80						+	+				0	+				+							+	+		
		wä GL	100						+	+				0					+								+		
1545  Na2SO3 Na2O3S	sodium sulfite	wä GL	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+		+	+			
		wä GL	40	+	+	+	+	+	+	+			+	+	0	+	+	+	+	+	+	+	+		+	+			
		wä GL	60	0	+	+	+	+	+	+			+		-	+	+	+	+	+	+	+	+		+	+			
		wä GL	80			+	+	+	+	+			+					+		+	+	+	+		+	+			
		wä GL	100					+	+	+								+		+					+	+			
1546 disodium tetraborate borax Na2B4O7 B4Na2O7	sodium tetraborate	wä GL	20	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		wä GL	40	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		wä GL	60	0	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä GL	80			+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+	+		
		wä GL	100					+	+	+								+	+					+	+	+	+		

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## Chemical Resistance

Release Date: 2023-04-24

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1547 sodium hydroxide caustic soda NaOH HNaO	wä	3%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+		
	wä	3%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	wä	3%	60	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	wä	3%	80	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	wä	3%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	wä	5%	20	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
	wä	5%	40	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	
	wä	5%	60	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	5%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	5%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	20	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	
	wä	10%	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	15%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	0	0	+
	wä	15%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
	wä	15%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	15%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	15%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	25%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	0	0	+
wä	25%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	
wä	25%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
wä	25%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
wä	25%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
wä	30%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	0	0	+	
wä	30%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	
wä	30%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
wä	30%	80			+	-		+	+										+	+	-	-				+	
wä	30%	100			+			+	+											+	+						+
wä	40%	20	+	+	+	+	-	+	+		+	+		+	0	0	+	+	+	+	+	+	0	0		+	
wä	40%	40	+	+	+	+		+	+		+	+		+	-	-	+	+	+	+	+	+				+	
wä	40%	60	0	+	+			+	+		+	+		+			+	+	+	+	+	+				+	
wä	40%	80				-		+	+									+	+	-	-	+				+	
wä	40%	100						+	+													+					
wä	50%	20	+	+	+	+	-	+	+		+	+		+	-	-	+	+	+	+	+	+	0	0		+	
wä	50%	40	+	+	+	+		+	+		+	+		+			+	+	+	+	+	+				+	
wä	50%	60	0	+	+			+	+		+	+		+			+	+	+	+	+	+				+	
wä	50%	80				-		+	+									+	+	-	-	+				+	
wä	50%	100						+	+													+				+	

1548	nickel(II) chloride	Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
		wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+				+	
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+				+
		wä	GL	60	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+				+
NiCl2		wä	GL	80					+	+	+						+	+	+	+	+	+	+	+	+				+	
Cl2Ni		wä	GL	100					+	+	+									+	+	+	+	+	+				+	

1549	nickel(II) nitrate	Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
		wä	GL	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+				+
		wä	GL	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+				+
		wä	GL	60	0	+	+	+	+	+	+			+				+	+	+	+	+	+	+	+	+				+
Ni(NO3)2		wä	GL	80					+	+	+									+	+	+	+	+	+	+				+
N2NiO6		wä	GL	100					+	+	+									+	+	+	+	+	+	+				+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant



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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1550 NiSO4 NiO4S	nickel(II) sulfate	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1551 NiS	nickel(II) sulfide	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
1552 NiSO3 NiO3S	nickel(II) sulfite	20		+	+	+		+	+			+	+	+	+	+	+	+	+		+	+	+			+	
		40		+	+	+		+	+			+	+	+	+	+	+	+	+		+	+	+			+	
		60		+	+	+		+	+			+	+	+	+	+	+	+	+		+	+	+			+	
		80						+	+						+	+	+	+	+		+	+	+				
		100						+	+							+	+	+	+								
1553 L(+)-tartaric acid nickel salt Ni[CO2CH(OH)CH(OH)CO2] C4H4NiO6	nickel(II) L-tartrate	20		+	+	+		+	+			+		+	+	+	+	+	+		+	+	+			+	
		40		+	+	+		+	+			+		+	+	+	+	+	+		+	+	+			+	
		60		+	+	+		+	+			+		+	+	+	+	+	+		+	+	+			+	
		80						+	+						+	+	+	+	+								
		100						+	+							+	+	+	+								
1554 (S)-(-)-1-methyl-2-(3-pyridyl)pyrrolidine C10H14N2	(S)-(-)-nicotine	20		+	+	+	+	+	+			+	+		+	+	+	+								+	
		40					+	+	+																		
		60					+	+	+																		
		80						+	+																		
		100						+	+																		

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1555 nicotinic acid pyridine-3-carboxylic acid niacin C6H5NO2	wä	VL	20	+	+			+	+	+																	
	wä	VL	40	+	+			+	+	+																	
	wä	VL	60	+				+	+	+																	
	wä	VL	80					+	+	+																	
	wä	VL	100					+	+	+																	
1556 nitrobenzene C6H5NO2	TR	TR	20	-	+	+	+	+	+	+		-	+		0	-	0	0	+	+		+	+	+	+	+	+
	TR	TR	40		0	0	0	0	+	+			0		-	-	-	-	+		+	+	+	+	+	+	+
	TR	TR	60		0	0	0	-	+	+			0		-	-	-	-	+		+	+	+	+	+	+	+
	TR	TR	80						+	+									+		+	+	+	+	+	+	+
	TR	TR	100						+	+									+		+	+	+	+	+	+	+
	TR	TR	120						+	+									+		+	+	+	+	+	+	+
1557 nitrobenzoic acid (o-, m- a. p-) O2NC6H4CO2H C7H5NO4	wä	VL	20	+	+	+	+		+	+			+								+	+	+				
	wä	VL	40						+	+											+	+	+				
	wä	VL	60						+	+											+	+	+				
	wä	VL	80						+	+											+	+	+				
	wä	VL	100						+	+											+	+	+				
1559 nitroglycol ethylene glycol dinitrate O2NOCH2CH2ONO2 C2H4N2O6	wä	VL	20	-	-	-	-	-	+	+			-		-	+	+	+								+	
	wä	VL	40						+	+																	
	wä	VL	60						+	+																	
	wä	VL	80						+	+																	
	wä	VL	100						+	+																	

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1560  O2NC6H4OH C6H5NO3	nitrophenol (o-, m- a. p-)	wä	GL	20	-																								
		wä	GL	40																									
		wä	GL	60																									
		wä	GL	80																									
		wä	GL	100																									
1562  CH3C6H4NO2 C7H7NO2	nitrotoluene (o-, m- a. p-)		TR	20	-	+	+	+	+	+	+	+			0	-	0	0				+	+	+					
			TR	40		+	+	+	+	+	+	+					-	-	-				+	+	+				
			TR	60		0	0	0	+	+	+			0									+	+	+				
			TR	80					+	+	+												+	+	+				
			TR	100					0	+	+												+	+	+				
			TR	120						+	+												+	+	+				
1563	fruit pulp			20	+	+	+	+	+	+	+			+		+	+	+	+						+	+	+		
				40		+	+	+	+	+	+			+															
				60		+	+	+	+	+	+			+															
				80					+	+	+																		
				100						+	+																		
1564	fruit juice, not fermented			20	+	+	+	+	+	+	+			+		+	+	+	+										
				40		+	+	+	+	+	+			+															
				60		+	+	+	+	+	+			+															
				80						+	+																		
				100						+	+																		

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1565	fruit juice, fermented	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1566	n-octane  CH3(CH2)6CH3 C8H18	TR 20					+	+	+						+	-	+	+	+	+	+	+	+	+	+	+	+	
		TR 40					+	+	+							+	+	+	+	+	+	+	+	+	+	+	+	
		TR 60					+	+	+									+	+	+	+	+	+	+	+	+	+	
		TR 80					+	+	+									+	+	+	+	+	+	+	+	+	+	
		TR 100					+	+	+									+	+	+	+	+	+	+	+	+	+	
		TR 120					+	+	+									+	+	+	+	+	+	+	+	+	+	
1567	octyl tolyl ether (o-, m-, a. p-)  H3CC6H4OCH2(CH2)6CH3 C15H24O	TR 20	-	0	0	0		+	+			0			-	0	0											
		TR 40	-	-	-	-		+	+			-			-													
		TR 60	-	-	-	-		+	+			-			-													
		TR 80						+	+																			
		TR 100						+	+																			
		TR 120						+	+																			
1569	oil (vegetable + animal)	20	+	+	+	+	+	+	+			+		+	-	+	+											
		40	+	+	+	+	+	+	+			+		+	-	+	+											
		60	+	0	0	0	+	+	+			0		+	-	+	+											
		80					+	+	+																			
		100					+	+	+																			

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			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1570	oleum	10% SO3	20	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		10% SO3	40	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		10% SO3	60	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		10% SO3	80	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		10% SO3	100	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
H2SO4 + SO3 H2O4S + O3S	P																											
1571	oleum vapours	gf	GK	20	+	-	-	-	+	+	+	-	-	0	+	+	+	-	-	-	-	-	-	-	-	-	-	
		gf	GK	40	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		gf	GK	60	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		gf	GK	80	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		gf	GK	100	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SO3 O3S	P																											
1572	olive oil			20	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	
				40	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
				60	+	0	0	0	+	+	+	0	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
				80	-	-	0	0	+	+	+	0	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
				100	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
1573	oleic acid		TR	20	+	+	+	+	+	+	+	+	+	0	-	+	+	+	+	+	+	+	+	+	+	+	+	
			TR	40	+	+	+	+	+	+	+	+	+	-	0	0	+	+	+	+	+	+	+	+	+	+	+	+
			TR	60	+	0	0	0	+	+	+	+	0	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+
			TR	80	-	-	-	-	+	+	+	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+
			TR	100	-	-	-	-	+	+	+	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+
cis-9-octadecenoic acid CH3(CH2)7CH=CH(CH2)7CO2H C18H34O2		TR	120	-	-	-	-	+	+	+	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+		

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1574 orthophosphoric acid  H3PO4 H3O4P	phosphoric acid	20	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	100							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	20	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	40	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	
	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	0	+	
	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	100								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	20	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	
	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	0	+	
	80								+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	
	100								+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	
	20	+	+	+	+	+	+	+	+	+	-	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	
	40	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	
	60	0	0	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	-	-	+	
	80								+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	
	100								+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	
	120								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	20	+	+	+	+	+	+	+	+	+	-	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	
	40	+	+	0	0	+	+	+	+	+	+	0	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
wä	95%	60			-	-	+	+	+						0	+	+	+	+	+	+		+	-	+	
wä	95%	80					+	+	+							+	+	+	+							
wä	95%	100					+	+	+						0	0	+	+	+							
wä	95%	120					+	+	+																	

1575	oxalic acid	Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
		wä	10%	20	+	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	+	+
	ethanedioic acid	wä	10%	40	+	+	+	+	+	+	+			+		-	+	+	+	+	+	+	+	+	+	0	+	+	
		wä	10%	60	+	+	+	+	0	+	+		0	+					+	+	+					0	0	-	
	HO2CCO2H	wä	10%	80			0	0	-	+	+			0					+	+						-	0		
	C2H2O4	wä	10%	100					+	+									+	+							-		

1576	ozone	Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
		gf	2%in Luft	20	+	0	0	0	+	+	+		+	0	-	-	+	+	+	+								+
	trioxygen	gf	2%in Luft	40	+	-	-	-	+	+	+			-			0	0	0	+								+
		gf	2%in Luft	60					0	+	+									+								+
		gf	2%in Luft	80						+	+																	
	O3	gf	2%in Luft	100						+	+																	
		wä	GL	20	+	0	0	0	+	+	+		0	-	-	+	+	+	+	+							+	
		wä	GL	40	+	-	-	-	+	+	+		-				0	0	0	+	+						+	
		wä	GL	60					+	+	+						-	-	-	+	+						+	
		wä	GL	80					0	+	+																	
		wä	GL	100						+	+																	

1578	palmitic acid	Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
			TR	20	+	0	0	0	+	+	+		+	0		0	0	+	+				+	+	+			
	hexadecanoic acid		TR	40			0	0	+	+	+		0		-	-	0	0					+	+	+			
	cetylic acid		TR	60			-	-	+	+	+		-										+	+	+			
	CH3(CH2)14CO2H		TR	80					+	+	+												+	+	+			
	C16H32O2		TR	100					+	+	+												+	+	+			
			TR	120					+														+	+	+			

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GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1579 palm kernel oil palm seed oil		20	+	+	+	+	+	+	+	+													+	+	+	
		40	-	+	+	+	+	+	+	+				0	+	+	+	+	+	+	+		+	+	+	
		60		0	0	0	+	+	+			0				+	+							+	+	+
		80					+	+	+																	
		100					+	+	+																	
1582 p-toluenesulfonic acid 4-methylbenzenesulfonic acid CH3C6H4SO3H C7H8O3S	wä	10%	20	+	+	+	+	+	+	+				0	+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	40	+	+	+	+	+	+	+					+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	60					+	+	+						+	+	+	+	+	+	+	+	+	+	
	wä	10%	80						+	+							+	+		+	+	+	+	+	+	
	wä	10%	100						+	+							+	+							+	
	wä	50%	20	+	+	+	+	+	+	+					-	+	+	+	+	+	+	+	+	+	+	
	wä	50%	40		+	+	+	+	+	+						+	+	+	+	+	+	+	+	+	+	
	wä	50%	60					+	+	+							+	+		+	+	+	+	+	+	
	wä	50%	80						+	+							+	+		+	+	+	+	+	+	
	wä	50%	100						+	+							+	+							+	
1583 pentanol (mixture of isomers) amyl alcohol (mixture of isomers) C5H12O		TR	20	+	+	+	+	+	+	+	-	+	+		+	+	0	0	+	+		+	+	+	+	
		TR	40	+	+	+	+	+	+	+		0	+		+	+			+	+		+	+	+	+	
		TR	60	0	+	+	+	+	+	+		0	+		+	+			+	+		+	+	+	+	
		TR	80					+	+	+							+	+		+	+	+	+	+	+	
		TR	100					+	+	+							+	+		+	+	+	+	+	+	
		TR	120					0	+	+							+	+		+	+	+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1584</b> perchloroethane  hexachloroethane  Cl3CCCl3 C2Cl6	TR	20	-	0	0	0	+	+	+	+	+			0												
	TR	40					+	+	+	+																
	TR	60					+	+	+	+																
	TR	80								+	+															
	TR	100								+	+															
<b>1585</b> perchloric acid  HClO4	wä	10%	20	+	+	+	+	+	+	+	+	-	-	+	-	-	0		+		-	+		+	0	
	wä	10%	40	+	+	+	+	+	+	+	+			+			-		+		-	+		+		
	wä	10%	60	0	+	+	+	+	+	+	+			+								+		+		
	wä	10%	80					+	+	+																
	wä	10%	100					+	+	+																
	wä	70%	20	0	0	0	0	+	+	+	-	-	0	-	-	0			+		-	+		+	0	
	wä	70%	40	-	-	-	-	+	+	+				-		-			+		-	+		+		
	wä	70%	60		-			+	+	+												+		+		
	wä	70%	80					+	+	+																
	wä	70%	100					+	+	+																
<b>1586</b> kerosene	TR	20	+	+	+	+	+	+	+	+	+			+		+	-	+	+	+	+	+	+	+	+	
	TR	40		+	0	0	+	+	+				0		+		+	+	+	+		+	+	+	+	
	TR	60		0	0	0	+	+	+				0		+		0	0	+	+		+	+	+	+	
	TR	80					+	+	+										+	+		+	+	+	+	
	TR	100					+	+	+										+	+		+	+	+	+	
	TR	120					+	+	+										+			+	+	+	+	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1588 phenol hydroxybenzene  C6H5OH C6H6O	10%	20	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	10%	40	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	10%	60	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	10%	80						+	+	+				0	0	0	+	+	+	+	+	+	+	+	+	+	+	
	10%	100						+	+	+							+	+	+	+	+	+	+	+	+	+	+	
	90%	20	-	+	+	+	+	+	+	+		+		-	-	+	+	+	+	+	+	+	+	+	+	+	+	
	90%	40	-	+	+	+	+	+	+	+		+			0	0	+	+	+	+	+	+	+	+	+	+	+	+
	90%	60	-	0	0	0	+	+	+	+		0				-	-	+	+	+	+	+	+	+	+	+	+	+
	90%	80							+	+	+							+	+	+	+	+	+	+	+	+	+	+
	90%	100							+	+	+							+	+	+	+	+	+	+	+	+	+	+
1590 phenylhydrazine  C6H5NHNH2 C6H8N2	TR	20	-	0	0	0	+	+	+			0		-	0	+	+											
	TR	40					+	+	+							+	+											
	TR	60						+	+							0	0											
	TR	80						+	+																			
	TR	100						+	+																			
1591 phosgene carbonyl dichloride carbonic acid dichloride COCl2 CCl2O	gf	TR, GK	20	+	0	0	0	0	+	+		0		-	+	+	+											
	gf	TR, GK	40	0	0	0	0	0	+	+		0			+	+	+											
	gf	TR, GK	60	0	0				+	+					+	0	0											
	gf	TR, GK	80						+	+																		
	gf	TR, GK	100						+	+																		
1594 phosphine  PH3 H3P	gf	TR, GK	20	+				+	+	+	0			-	+	+	+									+		
	gf	TR, GK	40	+				+	+	+																		
	gf	TR, GK	60						+	+																		
	gf	TR, GK	80						+	+																		
	gf	TR, GK	100						+	+																		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1595 phosphorus(III) chloride phosphorus trichloride PCI3 Cl3P P	TR	20	-	0	0	-	+	+	+	-	-	0	-	-	-				+	-	+	+	+			
	TR	40		-	-		+	+	+			-							+		+	+				
	TR	60						+	+										+		+	+				
	TR	80							+	+																
1596 phosphorus(V) oxide phosphorus pentoxide P4O10 O10P4	TR	20	+	+	+	+	+	+	+			+		0	+	+	+									
	TR	40	+	+			+	+	+					-	+	+	+									
	TR	60					+	+	+						+	+	+									
	TR	80					+	+	+																	
	TR	100					+	+	+																	
1597 phosphoryl chloride phosphoroxy chloride phosphoric acid trichloride POCl3 Cl3OP P	TR	20	-	0	0	-	+	+	+	-	-	0	-	-	-				+	-	+	+	+			
	TR	40		-	-		0	+	+			-							+		+	+	+			
	TR	60					-	+	+										+		+	+	+			
	TR	80						+	+																	
	TR	100						+	+																	
1598 phthalic acid benzene-1,2-dicarboxylic acid C6H4(CO2H)2 C8H6O4	wä	GL	20	+	+	+	+	+	+	+	+	+	+	-	+	-	-	+	+	+	+	+	+			+
	wä	GL	40	0	+	+	+	+	+			+			+				+	+	+	+	+			+
	wä	GL	60	-	+	+	+	+	+			+			0				+	+	+	+	+			+
	wä	GL	80					+	+	+									+		+	+	+			+
	wä	GL	100					+	+	+									+							+
1599 phthalic acid monopentyl ester monopentyl phthalate Monoamyl phthalate 2-(HO2C)C6H4CO2CH2(CH2)3CH3 C13H16O4	TR	20	-	+	+	+		+	+	-	+							+	+		+	+	+	+	+	+
	TR	40						+	+									+	+		+	+	+	+	+	+
	TR	60						+	+									+	+		+	+	+	+	+	+
	TR	80						+	+									+		+	+	+	+	+	+	+
	TR	100						+	+									+		+	+	+	+	+	+	+

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Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
<b>1600</b> phthalic acid monobutyl ester monobutyl phthalate  2-(HO2C)C6H4CO2CH2(CH2)2CH3 C12H14O4	TR	20	-	+	+	+	+	+	+	+	+																	
	TR	40		+																								
	TR	60																										
	TR	80																										
	TR	100																										
<b>1601</b> picric acid 2,4,6-trinitrophenol  C6H2(NO2)3OH C6H3N3O7	wä	VL	20	+	+	+	+	+	+	+				+		+	+	+							+	+	+	
	wä	VL	40		+				+	+	+						-	+	+									
	wä	VL	60						+	+	+					0	+	+										
	wä	VL	80						+	+	+																	
	wä	VL	100						+	+	+																	
	wä	GL	20	+	+	+	+	+	+	+	+			+		0	0	+	+						+	+	+	
	wä	GL	40		+				+	+	+						-	+	+									
	wä	GL	60						+	+	+						0	0										
	wä	GL	80							+	+																	
	wä	GL	100							+	+																	
<b>1603</b> polyaluminium chloride PAC  Aln(OH)xCl3n-x HxAlnCl3n-xOx	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	0	+	
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		-	+	
	wä	10%	60	+	+	+	+	+	+	+	+	0	0	+			+	+	+	+	+	+	+	+	+		+	
	wä	10%	80			+	+	+	+	+				+			+	+	+	+		+	+	+			+	
	wä	10%	100						+	+	+						+	+	+	+		+	+	+			+	
	wä	GL	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
	wä	GL	40	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+		+	
	wä	GL	60	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+		+	
	wä	GL	80			+	+	+	+	+			+	+	+	+	+	+	+	+		+	+	+			+	
	wä	GL	100						+	+	+						+	+	+	+		+	+	+			+	

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Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1604 polyethylene glycol polyglycol, PEG Carbowax HO(CH2CH2O)nH C2H4O	TR	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	80								+	+				+	+					+	+	+	+	+	+
	TR	100								+	+							+				+	+	+	+	+
	TR	120								+	+								+			+	+	+	+	+
1605 propane CH3CH2CH3 C3H8	gf TR, GK	20	+	+	+	+	+	+	+	+	+	+	+	-	+	+										
	gf TR, GK	40		+				+	+	+		+														
	gf TR, GK	60						+	+	+		+														
	gf TR, GK	80						+	+	+																
	gf TR, GK	100							+	+																
1606 1-propanol propyl alcohol CH3CH2CH2OH C3H8O	TR	20	+	+	+	+	+	+	+	+	-		+	0	+	+	+	+	+		+	+	+	+	+	+
	TR	40	0	+	+	+	+	+	+	+			+	0	+	+	+	+	+		+	+	+	+	+	+
	TR	60	0	+	+	+	+	+	+	+			+	-	+	+	+	+	+		+	+	+	+	+	+
	TR	80						0	+	+				0	0	0		+			+	+	+	+	+	+
	TR	100							+	+					-	-		+			+	+	+	+	+	+
1607 propargyl alcohol 2-propin-1-ol ethinylcarbinol HCCCH2OH C3H4O	wä 10%	20	+	+	+	+	+	+	+	+			+	+	+	+	+	+		+	+	+	+	+	+	+
	wä 10%	40	+	+	+	+	0	+	+			+		+	+	+	+	+		+	+	+	+	+	+	+
	wä 10%	60	+	+	+	+	0	+	+			+		+	+	+	+	+		+	+	+	+	+	+	+
	wä 10%	80						+	+									+						+	+	+
	wä 10%	100						+	+									+						+	+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1608</b>	<b>propionic acid</b>	wä	50%	20	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
	propanoic acid	wä	50%	40	+	+	+	+	+	+	+	+	+	+	-	0	+	+	+	+	+	+	+	+	+	+	+
	methylacetic acid	wä	50%	60	0	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+
	CH3CH2CO2H	wä	50%	80						+	+								+		+	+				+	
	C3H6O2	wä	50%	100						+	+								+		+	+				+	
		TR	20	0	+	+	+	+	+	+	+	+	+	-	+	-	0	+	+		+	+	+	+	+	+	+
		TR	40	-	0	0	0	+	+	+		-	0		+		0	+	+		+	+	+	+	+	+	+
		TR	60		0	0	0	+	+	+			0		0			+	+		+		+	+	+	+	+
		TR	80							+	+								+		+					+	+
		TR	100							+	+								+		+					+	+
<b>1609</b>	<b>1,2-propanediol</b>		50%	20		+	+	+		+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	1,2-propylene glycol		50%	40		+	+	+		+	+		+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
			50%	60		+	+	+		+	+		+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
	CH3CH(OH)CH2OH		50%	80						+	+					+	+	+	+	+	+				+	+	+
	C3H8O2		50%	100						+	+							+	+						+	+	+
		TR	20		+	+	+			+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	40		+	+	+			+	+		+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
		TR	60		+	+	+			+	+		+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
		TR	80							+	+					+	+	+	+	+	+				+	+	+
		TR	100							+	+							+	+						+	+	+
		TR	120							+	+							+	+						+	+	+
<b>1610</b>	<b>propylene oxide</b>		TR	20	0	+	+	+	-	+	+		+		-	+	-	-									
	1,2-epoxypropane																										
	propene oxide																										
	C3H6O																										

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1611	pyridine	TR	20	-	+	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	40		0	0	0	0	+	+	+	+	+	0	+	-	+	+	+	+	+	+	+	+	+	+	+	+
		TR	60		0	0	0	-	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	80						+	+	+	+	+	+														
		TR	100						+	+	+	+	+	+														
C5H5N																												
1612	mercury	TR	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		TR	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	80					+	+	+						+	+	+				+	+					
		TR	100					+	+	+								+				+		+				
		TR	120					+	+	+								+				+		+				
1613	murcury(II) sulfate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60		+	+	+	+	+	+	+	+	+	+							+	+	+				
		wä	GL	80					+	+	+											+	+		+	+		
		wä	GL	100					+	+	+											+						
HgSO4																												
HgO4S																												

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1614  HgCl2 Cl2Hg	mercury(II) chloride	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	VL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	80					+	+	+								+	+		+	+					+
		wä	VL	100						+	+								+	+								+
		wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+		+			+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+								+	+		+	+					+
		wä	GL	100						+	+								+	+								+
1615  Hg(CN)2 C2HgN2	mercury(II) cyanide	wä	VL	20	+	+	+	+	0	+	+			+			+	+	+	+	+	+	+				-	
		wä	VL	40	+	+	+	+		+	+			+			+	0	0	+	+		+	+	+			-
		wä	VL	60	0	+	+			+	+			+					+	+		+		+				-
		wä	VL	80						+	+									+								-
		wä	VL	100						+	+									+								-
		wä	GL	20	+	+	+	+	-	+	+		+			+	0	0	+	+		+	+	+				-
		wä	GL	40	+	+	+	+		+	+		+			+	-	-	+	+		+	+	+				-
		wä	GL	60	0	+	+			+	+		+						+	+		+		+				-
		wä	GL	80						+	+								+									-
		wä	GL	100						+	+								+									-

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1616  Hg(NO3)2 HgN2O6	mercury(II) nitrate	wä 25%	20	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+			+	
		wä 25%	40	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
		wä 25%	60	0	+	+	+	+	+	+	+								+	+	+	+	+	+			+
		wä 25%	80						+	+	+								+			+	+				+
		wä 25%	100						+	+	+								+			+	+				+
		wä GL	20	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
		wä GL	40	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+
		wä GL	60	0	+	+	+	+	+	+	+				+				+	+	+	+	+	+			+
		wä GL	80							+	+	+							+			+	+				+
		wä GL	100							+	+	+							+			+	+				+
1620  2-hydroxybenzoic acid  HOC6H4CO2H C7H6O3	salicylic acid	wä GL	20	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+	
		wä GL	40	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+			+	
		wä GL	60	0	+	+	+	+	+	+				+	0	+	+	+	+	+	+	+	+			+	
		wä GL	80						+	+	+				-	+	+	+	+		+	+				+	
		wä GL	100					0	+	+									+								+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																										
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537			
1621  HNO3	nitric acid	P	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
			wä	10%	40	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
			wä	10%	60	0		-	-	+	+	+					0	+	+	+			+		+				
			wä	10%	80					+	+	+					-			+			+		+				
			wä	10%	100					+	+	+								+			+		+				
			wä	30%	20	+	0	0	0	+	+	+	-	+	0	-	-	+	+	+	+	+	+	+	+	+	+	+	+
			wä	30%	40	+	0	-	-	+	+	+		+	-		0	-	+	+	+	+	+	+	+	+	+	+	+
			wä	30%	60	0				+	+	+								+			+		+				
			wä	30%	80					+	+	+											+		+				
			wä	30%	100					+	+	+											+		+				
			wä	50%	20	+	0	-	-	+	+	+	-	0	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+
			wä	50%	40	+	-			+	+	+		-			-	+	+	+	+	0	+	+	+	+	+	+	+
			wä	50%	60	0				+	+	+								+			+		+				
			wä	50%	80					+	+	+											+		+				
			wä	65%	20	0	-	-	-	+	+	+	-	-	-	-	-	-	+	+	+	0	+	+	+	+	+	+	+
			wä	65%	40	0				+	+	+						+	+	+	+	-	+	+	+	+	+	+	+
			wä	70%	20	0	-	-	-	+	+	+	-	-	-	-	-	-	+	+	+	0	+		+				
			wä	70%	40	-				+	+	+							+	+	-	+	+		+				
			wä	98%	20	-	-	-	-	0	+	+	-	-	-	-	-	-	-	-	-	-							
			wä	98%	40					-	+	+																	
1622  HNO2	nitrous acid	P	wä	VL	20					+	+	+	-			0	+	+	+										
			wä	VL	40					+	+	+					-	+	+	+									
			wä	VL	60					+	+	+							+	+									
			wä	VL	80					+	+	+																	
			wä	VL	100					+	+																		

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## Chemical Resistance

Release Date: 2023-04-24

		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1623	hydrochloric acid	wä	5%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+			
		wä	5%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	5%	60	0	+	+	+	+	+	+	+						+	+	+	+	+	+	+	+			+		
		wä	5%	80			0	0	+	+	+				0			+		+	+	+	+	+	+			+		
		wä	5%	100					+	+	+																			
		wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	-	-	+	
		wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+			+	
		wä	10%	60	0	+	0		+	+	+				0			+	0	+	+	+	+	+	+	+			+	
		wä	10%	80			0		+	+	+				0					+	+	+	+	+	+	+			+	
		wä	10%	100					+	+	+																			
		wä	20%	20	+	+	+	+	+	+	+	+	-	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		wä	20%	40	+	+	+	+	+	+	+	+			+	+		+	0	+	+	+	+	+	+	+			+	
		wä	20%	60	0	+	0		+	+	+				0	-			-	+	+	+	+	+	+	+			+	
		wä	20%	80			0		+	+	+				0			-			+	+	+	+	+	+			+	
		wä	20%	100						+	+																			
		wä	30%	20	+	+	+	+	+	+	+	+	-	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		wä	30%	40	+	+	+	0	+	+	+				+	+		+	0	+	+	+	+	+	+	+	+			+
		wä	30%	60	0	0	0		+	+	+				0	-			-	+	+	+	+	+	+	+			+	
		wä	30%	80			-	-	+	+	+				-			-		0	+	+	+	+	+	+			+	
		wä	37%	20	+	+	+	+	+	+	+	+	-	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
wä	37%	40	+	+	+	0	+	+	+			0	+	0		0	-	+	+	+	+	+	+	+	+			+		
1624	brine	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+		
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
		wä	GL	60	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	
		wä	GL	80			+	+	+	+	+				+	+		+	+	+	+	+	+	+	+	+			+	
		wä	GL	100					+	+	+										+	+	+	+	+	+			+	

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## Chemical Resistance

Release Date: 2023-04-24

		Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1625	oxygen	gf	TR, GK	20	+	+	+	+	+	+	+		+	+		-	+	+	+	+								
		gf	TR, GK	40	+	+	0	0	+	+	+		+	0				+	+	+								
		gf	TR, GK	60	+	0	0	0	+	+	+		+	0				+	+	+								
		gf	TR, GK	80					0	+	+							+	+	+								
		gf	TR, GK	100					0	+	+								+	+								
		gf	TR, GK	120						+	+								+	+								
1627	soap soft soap			20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+		+	
				40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+		+	
				60	0	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+		+	
				80					+	+	+										+	+		+	+		+	
				100					+	+	+									+	+						+	
1628	sulfur		TR	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+						+	+	+
			TR	40	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+					+	+	+
			TR	60		+	+	+	+	+	+			+				+	+	+	+					+	+	+
			TR	80			+	+	+	+	+			+					+	+	+					+	+	+
			TR	100					+	+	+								+	+	+					+	+	+
1629	sulfur dioxide, gaseous	gf, fe	TR, GK	20	+	+	+	+	+	+	+		+	+		-	+	+	+	+							+	+
		gf, fe	TR, GK	40	+	+	+	+	+	+	+		+				+			+								
		gf, fe	TR, GK	60	0	+	+	+	+	+	+		+				0			+								
		gf, tr	TR, GK	20	+	+	+	+	+	+	+		+	+			-	+	+	+	+						+	+
		gf, tr	TR, GK	40	+	+	+	+	+	+	+		+					+	0	0	+						+	+
		gf, tr	TR, GK	60	0	+	+	+	+	+	+		+					0			+						+	+

**Abbreviations:** P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution  
 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1632  H2SO4 H2O4S	sulfuric acid	20	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	-	-	+	
		40	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		60	0	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		80			+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		100					+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		20	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	-	-	+
		40	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		60	0	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		80			+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		100					+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		20	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	-	-	+
		40	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		60	0	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		80			+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		100					+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		20	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		40	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		60	0	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		80			+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		100					+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		20	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		40	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		60	0	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+
		60	0	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	-	-	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
wä	60%	80			+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+				
wä	60%	100					+	+	+	+	+															
wä	70%	20	+	+	+	+	+	+	+	+		-		+	+	+	+	+	+	+	+	+	+	-	-	+
wä	70%	40	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+
wä	70%	60					+	+	+	+							+	+	+	+	+	+	+	+	+	+
wä	70%	80						+	+	+					-		+	+	+	+	+	+	+	+	+	+
wä	70%	100							+	+							+	+	+	+	+	+	+	+	+	+
wä	75%	20	+	+	+	+	+	+	+	+	-		+	+	-	+	+	+	+	+	+	+	+	+	-	+
wä	75%	40	+	+	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+	+
wä	75%	60					+	+	+	+							+	+	+	+	+	+	+	+	+	+
wä	75%	80						+	+	+					-		+	+	+	+	+	+	+	+	+	+
wä	75%	100							+	+							+	+	+	+	+	+	+	+	+	+
wä	80%	20	+	+	+		+	+	+	+	-		+	+	-	+	+	+	+	+	+	+	+	+	-	+
wä	80%	40	+	+	+		+	+	+	+			+	+		0	+	+	+	+	+	+	+	+	+	+
wä	80%	60	-	0	0		+	+	+	+					0	-	+	+	+	+	+	+	+	+	+	+
wä	80%	80					+	+	+	+							+	+	+	+	+	+	+	+	+	+
wä	80%	100						0	+	+								+	+	+	+	+	+	+	+	+
wä	85%	20	+				+	+	+	+	-			-	0	+	+	+	+	+	+	+	+	+	-	+
wä	85%	40	+				+	+	+	+					-	+	+	+	+	+	+	+	+	+	+	+
wä	85%	60	-				+	+	+	+							+	+	+	+	+	+	+	+	+	+
wä	85%	80					+	+	+	+							+	+	+	+	+	+	+	+	+	+
wä	85%	100						+	+	+								+	+	+	+	+	+	+	+	+
wä	90%	20					+	+	+	+	-			-	-	+	+	+	+	+	+	+	+	+	-	+
wä	90%	40					+	+	+	+						+	+	+	+	+	+	+	+	+	+	+
wä	90%	60	-				+	+	+	+						0	+	+	+	+	+	+	+	+	+	+
wä	90%	80						+	+	+								+	+	+	+	+	+	+	+	+
wä	90%	100						+	+	+								+	+	+	+	+	+	+	+	+
wä	96%	20	0	-	-	-	+	+	+	+	-	-	-	-	-	0	+	+	+	+	+	+	+	+	-	+

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GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
			wä	96%	40	-				+	+	+							-	+	+	+		+	+	
wä	96%	60				0	+	+	+									+	+		+	+				+
wä	96%	80					+	+	+									+	+		+	+				
wä	96%	100					+	+	+									+	+		+	+				
wä	98%	20	-	-	-	-	+	+	+	-	-	-	-	-	-	-	+	+	+	-	+	+	+			+
wä	98%	40					+	+	+								+	+	+		+	+				+
wä	98%	60					+	+	+								+	+	+		+	+		-		+
wä	98%	80					+	+	+								+	+	+		+	+				
wä	98%	100					+	+	+								+	+	+		+	+				

1634	sulfur trioxide																										
		gf	TR, GK	20	-	-	-	0	+	+			-	-	-	-		+									
	sulfuric acid anhydride	gf	TR, GK	40					+	+								+									
		gf	TR, GK	60					+	+								+									
	SO3	gf	TR, GK	80					+	+																	
	O3S	gf	TR, GK	100					+	+																	

1635	hydrogen sulfide																										
		wä	VL	20	+	+	+	+	+	+			+		-	+		+	+	+	+	+	+				
		wä	VL	40	+	+	+	+	+	+			+		0			+	+	+	+	+	+				
		wä	VL	60	0	+	+	+	+	+			+		-			+	+		+	+	+				
		wä	VL	80					+	+	+							+	+		+	+	+				
		wä	VL	100					+	+	+							+	+		+	+	+				
		wä	GL	20	+	+	+	+	+	+			+		-	+		+	+	+	+	+	+				
		gf	TR, GK	20	+	+	+	+	+	+		0	+		-	+		+									
		gf	TR, GK	40	+	+	+	+	+	+			+		0			+									
		gf	TR, GK	60	+	0	+	+	+	+			+		-			+									
		gf	TR, GK	80					+	+	+							+									
		gf	TR, GK	100					+	+	+							+									

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1636 sulfur dioxide, aqueous solution  sulfurous acid  SO2 · xH2O ("H2SO3") O2S · xH2O ("H2O3S")	wä	10% (GL)	20	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	< 10%	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	< 10%	60	0	+	+	+	+	+	+	+	+	+	0	-	+	+	+	+	+	+	+	+	+	+	+	
	wä	< 10%	80			+	+	+	+	+	+	+	+	-					+								
	wä	< 10%	100					+	+	+									+								
1637 soap hydrous solution			20	+	+	+	+	+	+	+	+	+	+	+	+	+	+							+	+	+	
			40	+	+	+	+	+	+	+	+	+	+	+	+	+	+							+	+	+	
			60	0	+	+	+	+	+	+	+	+	+	+	+	+	+							+	+	+	
			80					+	+	+																	
			100					+	+	+																	
1638 silver acetate  CH3CO2Ag C2H3AgO2	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+			
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+			
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+			
	wä	GL	80					+	+	+												+	+	+			
	wä	GL	100					+	+	+																	
1639 silver chloride  AgCl	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	100					+	+	+					+	+	+	+	+	+	+					+	
1640 silver cyanide  AgCN CAgN	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+			
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+			
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+			
	wä	GL	80					+	+	+																	
	wä	GL	100					+	+																		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																												
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537					
1641	silver nitrate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		wä	GL	60	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		wä	GL	80					+	+	+												+	+	+	+	+	+			
		wä	GL	100					+	+	+													+	+	+	+	+			
AgNO3																															
	1642	silver sulfate	wä	GL	20						+	+																			
			wä	GL	40							+	+																		
			wä	GL	60							+	+																		
			wä	GL	80							+	+																		
wä			GL	100							+	+																			
Ag2SO4 Ag2O4S																															
	1643	silicone oil		TR	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
				TR	40		+	+	+	+	+	+	+	+																	
				TR	60		+	+	+	+	+	+	+																		
				TR	80			+	+	+	+	+																			
			TR	100			+	+	+	+	+																				
polydimethylsiloxane  HO[Si(CH3)2O]nH C2H6OSi		TR	120					+	+	+																					
	1644	sperm oil			20	+	+	+	+	+	+				+	0	+	+										+			
					40																										
					60																										
					80																										
				100																											

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1646	spin bath acid with carbondisulfide	100mgCS2/L	20	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		100mgCS2/L	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	
		100mgCS2/L	60	+	-	0	0	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100mgCS2/L	80							+	+																	
		100mgCS2/L	100							+	+																	
		200mgCS2/L	20	0	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		200mgCS2/L	40	0					+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+
		200mgCS2/L	60							+	+																	
		200mgCS2/L	80							+	+																	
		200mgCS2/L	100							+	+																	
		700mgCS2/L	20	-	+	+	+	+	+	+	+		+	-	0	+	+	+	+	+	+	+	+	+	+	+	+	+
		700mgCS2/L	40					+	+	+	+				0	+	+	+	+	+	+	+	+	+	+	+	+	+
		700mgCS2/L	60							+	+																	
		700mgCS2/L	80							+	+																	
700mgCS2/L	100							+	+																			
1649	starch	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1650	starch sirup	H	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		H	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		H	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		H	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		H	100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1652 stearic acid octadecanoic acid CH3(CH2)16CO2H C18H36O2	TR	20	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	60	+	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+	+	+
	TR	80					+	+	+									+	+	+	+	+				
	TR	100					+	+	+									+	+	+	+	+				
	TR	120					+											+	+	+	+	+				
1653 stearic acid butyl ester butylstearate octadecanoic acid butyl ester CH3(CH2)16CO2CH2(CH2)2CH3 C22H44O2	TR	20		+	+	+	+	+	+			+	+	+	+	+				+	+	+	+	+	+	+
	TR	40		+	+	+	+	+	+			+	+	+	+	+				+	+	+	+	+	+	+
	TR	60		0	0	0	+	+	+			0	0	0	0	0				+	+	+	+	+	+	+
	TR	80					+	+	+											+	+	+	+	+	+	+
	TR	100					+	+	+											+	+	+	+	+	+	+
	TR	120							+	+										+	+	+	+	+	+	+
1655 strontium chloride SrCl2 Cl2Sr	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	100					+	+	+								+	+							
1656 styrene vinylbenzene phenylethylene C6H5CH=CH2 C8H8	TR	20	-	0	0	0	-	+	+		-	0					+			+	+	+				
	TR	40	-	-	0	0	-	+	+		0						+			+	+	+				
	TR	60			-	-		+	+		-									+	+	+				
	TR	80						+	+											+	+	+				
	TR	100						+	+																	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1657</b> sulfamic acid	wä	16% (GL)	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	16% (GL)	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	16% (GL)	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	16% (GL)	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	16% (GL)	100							+	+							+	+								
<b>1658</b> SurTec 104 universal cleaner	wä	8%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	8%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	8%	60	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	8%	80							+	+							+	+			+	+	+	+	+	+
	wä	8%	100							+	+							+	+			+	+	+	+	+	+
<b>1659</b> nitrogen	gf	TR, GK	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	gf	TR, GK	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	gf	TR, GK	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	gf	TR, GK	80		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	gf	TR, GK	100			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	gf	TR, GK	120						+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+
<b>1660</b> Tanigan® extra A			20	+					+	+		-			+	+	+	+									
			40						+	+					+	+	+	+									
			60						+	+																	
			80						+	+																	
			100						+	+																	

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
			1661	Tanigan® extra B	20	+					+	+		-			+	+	+	+						
		40						+	+					+	+	+	+									
		60						+	+																	
		80						+	+																	
		100						+	+																	
1662	Tanigan® extra D	20	+					+	+					+	+	+	+									
		40	0					+	+					+	+	+	+									
		60	-					+	+																	
		80						+	+																	
		100						+	+																	
1663	Tanigan® F	20	+					+	+					+	+	+	+									
		40	+					+	+					+	+	+	+									
		60	+					+	+																	
		80						+	+																	
		100						+	+																	
1664	Tanigan® U	20						+	+					+	+	+	+									
		40						+	+					+	+	+	+									
		60						+	+																	
		80						+	+																	
		100						+	+																	
1665	tannin	wä	GL	20	+	+	+	+	+	+			+	+	+	+	+				+	+	+	+	+	+
	tannic acid	wä	GL	40	+	+	+	+	+	+			+	+	+	+	+				+	+	+	+	+	+
	gallotannic acid	wä	GL	60	+	+	+	+	+	+			+	+	+	+	+				+	+	+	+	+	+
		wä	GL	80				+	+	+											+	+	+			
		wä	GL	100				+	+	+																

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1666	turpentine	20	+	0	-	-	+	+	+		0	-		+	-	+	+	+	+		+	+	+	+	+	+
		40	0	0			+	+	+						0		+	+	+			+	+	+	+	+
		60		0				+	+								+	+	+			+	+	+	+	+
		80						+	+										+			+	+	+	+	+
		100						+	+										+			+	+	+	+	+
1667	turpentine substitute	20	+	0	0	0	+	+	+			0		+	-	+	+	+	+		+	+	+	+	+	+
		40	0	-	-	-	+	+	+				-		+		+	+	+			+	+	+	+	+
		60						+	+								+	+	+			+	+	+	+	+
		80						+	+										+			+	+	+	+	+
		100						+	+										+			+	+	+	+	+
1668	oil of turpentine	20	+	0	-	-	+	+	+		0	-		+	-	+	+	+	+		+	+	+	+	+	+
		40	0	0				+	+						0		+	+	+			+	+	+	+	+
		60						+	+									+	+			+	+	+	+	+
		80						+	+										+			+	+	+	+	+
		100						+	+										+			+	+	+	+	+
1669	tetrabromomethane carbon tetrabromide CBr4	TR	20	-	-	-	-	+	+	+		-		-	-	-	-	-	+		+	+	+			
		TR	40					+	+	+									+			+	+	+		
		TR	60						+	+									+			+	+	+		
		TR	80						+	+									+			+	+	+		
		TR	100						+	+									+			+	+	+		
1670	1,1,2,2-tetrachloroethane acetylene tetrachloride TCE CHCl2CHCl2 C2H2Cl4	TR	20	-	0	0	0	0	+	+		-	0		-	-	-	-	+	+		+	+	+		
		TR	40					0	+	+		-							+	+		+	+	+		
		TR	60					0	+	+		-							+			+	+	+		
		TR	80						+	+									+			+	+	+		
		TR	100						+	+									+			+	+	+		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
			0	0	0	+	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
1671 tetrachloroethylene tetrachloroethene perchloroethylene Cl2C=CCl2 C2Cl4 P	TR	20	-	0	0	0	+	+	+	+	0	0	0	0	-	0	0	+	+	+	+	+	+	+	-	
	TR	40	-	0	0	0	+	+	+	+	0	0	0	0	-	0	0	+	+	+	+	+	+	+		
	TR	60	-	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+		
	TR	80	-	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+		
	TR	100	-	0	0	0	+	+	+	+	0	0	0	0	0	0	0	+	+	+	+	+	+	+		
1672 tetrachloromethane carbon tetrachloride CCl4 P	TR	20	0	-	-	-	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	40	-	0	0	0	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	60	-	0	0	0	0	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	80	-	0	0	0	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	100	-	0	0	0	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
1673 tetraethyllead lead tetraethyl TEL (C2H5)4Pb C8H20Pb	TR	20	+	+	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+
	TR	40	-	0	0	0	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	60	-	0	0	0	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	80	-	0	0	0	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	100	-	0	0	0	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
	TR	120	-	0	0	0	+	+	+	+	0	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
1674 tetrahydrofuran THF oxolane C4H8O P	TR	20	-	0	0	0	0	+	+	-	-	0	-	-	-	-	-	+	+	+	+	+	+	+	+	+
	TR	40	-	0	0	0	0	+	+	-	-	0	-	-	-	-	-	+	+	+	+	+	+	+	+	+
	TR	60	-	0	0	0	0	+	+	-	-	0	-	-	-	-	-	+	+	+	+	+	+	+	+	+
	TR	100	-	0	0	0	0	+	+	-	-	0	-	-	-	-	-	+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1675 Tetralin®  C10H12	1,2,3,4-tetrahydronaphthalene	TR	20	-	0	-	-	+	+	+	-	-	-	-	-	+	+		+	+	+	+	+			
		TR	40					+	+											+	+	+	+			
		TR	60					+	+											+	+	+	+			
		TR	80					+	+											+	+	+	+			
		TR	100					+	+											+	+	+	+			
1676 mercaptoacetic acid  HSCH2CO2H C2H4O2S	thioglycolic acid	TR	20	-	+	+	+		+	+		+		-												
		TR	40		+	+	+		+	+		+														
		TR	60		+	+	+		+	+		+														
		TR	80						+	+																
		TR	100						+	+																
1677 sulfurous acid dichloride  SOCl2 Cl2OS	thionyl chloride	TR	20	-	-	-	-	+	+	+	-	-	-	-	-	-	-		+	-	+	+	+			
		TR	40					0	+	+										+	+	+	+			
		TR	60					-	+	+										+	+	+	+			
		TR	80																							
1678 C4H4S	thiophene	TR	20	-	0	0	0	+	+	+	0	0		-	-	-	-		+		+	+	+	+	+	+
		TR	40		0	-	-		+	+				-						+		+	+	+	+	+
		TR	60						+	+										+		+	+	+	+	+
		TR	80						+	+										+		+	+	+	+	+
1679 methylbenzene  C6H5CH3 C7H8	toluene	TR	20	-	0	0	0	+	+	+	-	0		-	-	+	+	+	+	+	+	+	+	+	+	+
		TR	40		0	-	-	+	+	+						0	+	+	+	+	+	+	+	+	+	+
		TR	60					0	+	+										+	+	+	+	+	+	+
		TR	80					0	+	+										+	+	+	+	+	+	+
		TR	100					-	+	+										+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1681</b> tributyl phosphate phosphoric acid tributyl ester TBP (C4H9O)3PO C12H27O4P	TR	20	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	TR	80							+	+												+	+	+	+	+	+
	TR	100							+	+												+	+	+	+	+	+
<b>1682</b> trichloroacetaldehyde chloral  CCl3CHO C2HCl3O	TR	20	-	+	+	+	-	+	+					+	0	-	0	0									
	TR	40		+	+	+		+	+					+													
	TR	60		+	+	+		+	+					+													
	TR	80						+	+																		
	TR	100						+	+																		
<b>1683</b> trichlorobenzene (mixture of isomers)  C6H3Cl3	TR	20	-	-	-	-	-	+	+					-	-				+	+	+	+	+	+	+	+	+
	TR	40						+	+										+	+	+	+	+	+	+	+	+
	TR	60						+	+										+	+	+	+	+	+	+	+	+
	TR	80						+	+										+	+	+	+	+	+	+	+	+
	TR	100						+	+										+	+	+	+	+	+	+	+	+
<b>1684</b> trichloroacetic acid  CCl3CO2H C2HCl3O2	wä	50%	20	+	+	+	+	+	+	+	+	0	+		-	0	-	-	+								+
	wä	50%	40	0	+	+	+	+	+	+			+						+								+
	wä	50%	60		+	+		0	+	+			+						+								+
	wä	50%	80					-	+	+									+								+
	wä	50%	100						+	+																	
<b>1685</b> trichloroethylene trichloroethene  ClCH=CCl2 C2HCl3	TR	20	-	-	0	0	+	+	+	-	-	0		-	-	0	0	+			+	+	+	+	+	+	+
	TR	40					+	+	+									+			+	+	+	+	+	+	+
	TR	60					+	+	+									+			+	+	+	+	+	+	+
	TR	80					+	+	+									+			+	+	+	+	+	+	+

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Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
<b>1686</b> trichloronitromethane  nitrotrichloromethane chloropicrin  CCl3NO2	TR	20	+	-	-	-		+	+																	
	TR	40						+	+																	
	TR	60						+	+																	
	TR	80						+	+																	
	TR	100						+	+																	
<b>1687</b> triethanolamine  2,2',2''-nitrioltriethanol  (HOCH2CH2)3N C6H15NO3	TR	20	0	+	+	+	-	+	+			+		-	0	0	0	+			+	+	+			+
	TR	40		+	+	+		+	+			+				-	-	+			+	+	+			
	TR	60		+	0	0		+	+			0											+			
	TR	80						+	+														+			
	TR	100						+	+																	
<b>1688</b> triethylene glycol  triglycol  HO(CH2CH2O)3H C6H14O4	TR	20		+	+	+		+	+			+									+	+	+			
	TR	40		+	+	+		+	+			+									+	+	+			
	TR	60		+	+	+		+	+			+									+	+	+			
	TR	80						+	+												+	+	+			
	TR	100						+	+												+	+				
<b>1689</b> trimethyl borate  boric acid trimethyl ester  (CH3O)3B C3H9BO3	TR	20	-	+	0	0		+	+			0														
	TR	40		0	-	-		+	+			-														
	TR	60						+	+																	
	TR	80						+	+																	
	TR	100						+	+																	
<b>1690</b> trioctyl phosphate  phosphoric acid trioctyl ester  (C8H17O)3PO C24H51O4P	TR	20	-	0	+	+		+	+			-	+	0	-	-	-									
	TR	40						+	+																	
	TR	60						+	+																	
	TR	80						+	+																	
	TR	100						+	+																	

**Abbreviations:** P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution  
 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
 + = resistant; 0 = conditionally resistant; - = non-resistant

## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1692	urine	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+																			
		100					+	+	+																			
		120								+	+																	
1693	vaseline	TR	0	0	+	+	+	+	+	+	+	+	+	-	+	+								+	+	+		
		TR	-	0	0	0	+	+	+		+	0		+	+	+								+	+	+		
		TR		-	0	0	+	+	+			0				+	+											
		TR					+	+	+							+	+											
		TR					+	+	+							+	+											
		TR					+	+	+							+	+											
1694	vaseline oil paraffin oil	TR	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+		
		TR	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+		
		TR	0	+	0	0	+	+	+		+	0		0		+	+	+	+	+	+	+	+	+	+	+		
		TR					+	+	+		0							+	+					+	+	+		
		TR					+	+	+									+	+					+	+	+		
		TR					+	+	+									+	+					+	+	+		
1695	vinyl acetate acetic acid vinyl ester  CH3CO2CH=CH2 C4H6O2	TR	-	+	+	+		+	+	-	-	+		-	-	-	+	+		+	+	+	+	+	+			
		TR		+	0	0		+	+		0						+	+		+	+	+	+	+	+			
		TR		0				+	+								+	+		+	+	+	+	+	+			

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
1696 chloroethylene H2C=CHCl C2H3Cl	vinyl chloride	20	-	0	-	-	+	+	+							0	0	+									
		40					+	+	+							0	0	+									
		60					+	+	+							0	0										
		80					+	+	+																		
		100					+	+	+																		
1697	viscose spinning solutions	20	+	+	+	+	+	+	+		-	+			-	+	+	+									
		40	+	+	+	+	+	+	+				+			+	+	+									
		60	+	+	+	+	+	+	+				+			+	+	+									
		80							+	+																	
		100							+	+																	
1698 wax alcohol lignoceryl alcohol CH3(CH2)22CH2OH C24H50O	1-tetracosanol	20	+	0	0	0	+	+	+		-	0		+	-	+	+				+	+	+				
		40	+	0	0	0	+	+	+			0		+		+	+				+	+	+				
		60	+	-	-	-	+	+	+				-		+		+	+				+	+	+			
		80						+	+													+	+	+			
		100						+	+													+	+				
1702 condensed water H2O	water, condensed	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+	-				0		+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+										+	+	+	+	+	+	+	+	+
1703 seawater	water, seawater	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+
		80			+	+	+	+	+	+	-		+			+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+										+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1704 mineral water	water, mineral water	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1705 pure water  H2O	water, pure	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1706 water, traces of butanol and phenol	water, traces of butanol and phenol	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1708   H2	hydrogen	gf TR, GK	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		gf TR, GK	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		gf TR, GK	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		gf TR, GK	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		gf TR, GK	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		gf TR, GK	120	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1709 hydrogen peroxide  HOOH H2O2	hydrogen peroxide	20	+	+	+		+	+	+		+	+	0		+	+	+	+		+		+	-	-	-	
		40	+	+	+		+	+	+		+	+	-		+	+	+	+		+		+	+			
		60	0	+	+		+	+	+							+	+	+	+		+		+	+		
		80					+	+	+									+	+		+		+	+		
		100					+	+	+									+	+		+		+	+		
		20	+	+	+		+	+	+		+	+	-	-		+	+	+	+		+		+	-	-	-
		40	0	0	0		+	+	+			0				+	+	+	+		+		+	+		
		60			0		+	+	+			0				0	0	+	+		+		+	+		
		80					+	+	+							-	-	+	+		+		+	+		
		100					+	+	+									+	+		+		+	+		
		20					+	+	+									+	+		+		+	-	-	-
		40					+	+	+									+	+		+		+	+		
		60					+	+	+												+		+	+		
		80					+	+	+												+		+	+		
		100					+	+	+												+		+	+		
		90																0	0							
		40					+	+	+												+		+	+		
		60					+	+	+												+		+	+		
		80					+	+	+												+		+	+		
		100					+	+	+												+		+	+		
120					+	+	+												+		+	+				
1710 wine, red and white	wine, red and white	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40		+	+	+	+	+	+		+	+												+	+	+
		60		+	+	+	+	+	+			+												+	+	+
		80					+	+	+																	
		100					+	+	+																	
		120					+	+	+																	

**Abbreviations:** P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1711	brandy	20	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+						0	0										
		100					+	+	+																	
		120								+	+															
1712	wine vinegar	H 20	+	+	+	+	+	+	+	-	+	+	-	+	0	0								+	+	+
		H 40	+	+	+	+	+	+	+		+	+		0	-	-								+	+	+
		H 60	+	+	+	+	+	+	+		+	+		-										+	+	+
		H 80			+	+	+	+	+		0	+												+	+	+
		H 100			-	-	+	+	+			-												+	+	+
1713	L(+)-tartaric acid tartaric acid, naturally  HO2CCH(OH)CH(OH)CO2H C4H6O6	wä GL 20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä GL 40	+	+	+	+	+	+	+	0		+		+	0	+	+	+	+	+	+	+	+	+	+	+
		wä GL 60	0	+	+	+	+	+	+	0		+		0	-	+	+	+	+	+	+	+	+	+	+	+
		wä GL 80					+	+	+										+	+	+	+	+	+	+	+
		wä GL 100					+	+	+										+	+	+	+	+	+	+	+
1715	xylene (mixture of isomers) dimethylbenzene (mixture of isomers)  C6H4(CH3)2 C8H10	TR 20	-	-	0	0	+	+	+		-	0		-	-	+	+	+	+	+	+	+	+	+	+	
		TR 40			-	-	+	+	+			-				0	0	+	+	+	+	+	+	+	+	+
		TR 60					0	+	+							-	-	+	+	+	+	+	+	+	+	+
		TR 80					0	+	+									+	+	+	+	+	+	+	+	+
		TR 100					0	+	+									+	+	+	+	+	+	+	+	+
		TR 120					-	+	+									+	+	+	+	+	+	+	+	+

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																								
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSIC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537	
<b>1716</b> zinc carbonate basic zinc hydroxide carbonate  2ZnCO3 • 3Zn(OH)2 C2H6O12Zn5	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	+	+	+		+	+	+	+			+	+	+						+	+	+			
	wä	GL	80					+	+	+													+				
	wä	GL	100					+	+	+																	
<b>1717</b> zinc chloride  ZnCl2 Cl2Zn	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	0	+	+	+	+	+	+		+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	80					+	+	+								+	+	+	+	+	+	+	+	+	+
	wä	10%	100					+	+	+								+	+	+	+	+	+	+	+	+	+
	wä	50%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	60	0		+	+	+	+	+		+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	50%	80					+	+	+								+	+	+	+	+	+	+	+	+	+
	wä	50%	100					+	+	+								+	+	+	+	+	+	+	+	+	+
	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	+	+	+	+	+	+	+		+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80	-	0			+	+	+								+	+	+	+	+	+	+	+	+	+
	wä	GL	100					+	+	+								+	+	+	+	+	+	+	+	+	+
<b>1718</b> zinc nitrate  Zn(NO3)2 N2O6Zn	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+		+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+	+	+	+		+										+	+	+	+	+	+
	wä	GL	100					+	+	+												+	+	+	+	+	+

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 GK = low concentration; GL = cold saturated solution; H = usual in trade; HK = high concentration; TR = technically pure; VL = diluted solution  
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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1719  ZnHPO4 HO4PZn	zinc hydrogenphosphate	wä	GL	20		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80						+	+	+											+	+	+	+	+	
		wä	GL	100						+	+	+											+	+	+	+	+	
1720  ZnSO4 O4SZn	zinc sulfate	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	10%	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	60	0	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	80			+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	100					+	+	+	+	+					+	+	+	+	+	+	+	+	+	+	+
		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100					+	+	+	+	+					+	+	+	+	+	+	+	+	+	+	+
1721  SnCl2 Cl2Sn	tin(II) chloride	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+		
		wä	VL	40	+	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	-	-	+	
		wä	VL	60	0	+	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+			+	
		wä	VL	80					+	+	+	+	+					+	+	+	+	+	+	+			+	
		wä	VL	100					+	+	+	+	+					+	+	+	+	+	+					
		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	
		wä	GL	40	0	+	+	+	+	+	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+		+	
		wä	GL	60	0	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+		+	
		wä	GL	80		0	0	0	+	+	+	+	+	0					+	+	+	+	+	+			+	
		wä	GL	100					+	+	+	+	+					+	+	+	+	+	+					

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1722	sugar sirup	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		100					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1723	mixed acid: HNO3 12%, HF 5%	20				-	+	+	+	-							+	+	+		-	-	-	-	-	-	-	
		40					+	+	+								+	+	+									
		60					+	+	+								0	+	+									
		80					+	+	+							-	0	+	+									
		100						+	+										+									
HNO3 12%, HF 5%, H2O 83%																												
P																												
1724	mixed acid: HNO3 20%, HF 5%	20				-	+	+	+	-							+	+	+		-	-	-	-	-	-		
		40					+	+	+								+	+	+									
		60					+	+	+								0	+	+									
		80					+	+	+							-	0	+	+									
		100						+	+										+									
HNO3 20%, HF 5%, H2O 75%																												
P																												
1728	chloramine mixture: NaOCl + NH3	wä	x = 0,125	20	+			+	+	+						+	+	+	+	-	+	+	+			+		
		wä	x = 0,125	40	+				+	+	+					-	-	-	+	+		+	+	+			+	
NH2Cl   NaOCl x mol/L, NH3 x•1,1 mol/L																												
H2CIN																												
P																												

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material / Component																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1729	chloramine mixture: NaOCl + (NH4)2SO4	wä x = 0,7	20	-					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä x = 0,7	30					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
NH2Cl   NaOCl x mol/L, (NH4)2SO4 0,5 mol/L H2CIN P																												
1731	ethylenediaminetetraacetic acid disodium salt	wä 8,2% (GL)	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									
		wä 8,2% (GL)	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									
		wä 8,2% (GL)	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									
		wä 8,2% (GL)	80		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									
		wä 8,2% (GL)	100						+	+								+	+									
EDTA DiNa-salt Titriplex® III (NaO2CCH2)2NCH2CH2N(CH2CO2H)2 C10H14N2Na2O8																												
1735	ethylenediaminetetraacetic acid tetrasodium salt	wä 10%	20						+	+					+	+	+	+	+									
		wä 10%	40						+	+					+	+	+	+	+									
		wä 10%	60						+	+					+	+	+	+	+									
		wä 10%	80						+	+					+	+	+	+	+									
		wä 10%	100						+	+								+	+									
		wä 44% (GL)	20						+	+					+	+	+	+	+									
		wä 44% (GL)	40						+	+					+	+	+	+	+									
		wä 44% (GL)	60						+	+					+	+	+	+	+									
		wä 44% (GL)	80						+	+					+	+	+	+	+									
		wä 44% (GL)	100						+	+								+	+									
EDTA TetraNa-salt (NaO2CCH2)2NCH2CH2N(CH2CO2Na)2 C10H12N2Na4O8																												

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																							
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
1739 sec-butyl alcohol CH3CH2CH(OH)CH3 C4H10O	2-butanol	TR	20						+	+									+		+	+	+	+	+	+
		TR	40						+	+									+		+	+	+	+	+	+
		TR	60						+	+									+		+	+	+	+	+	+
		TR	80						+	+									+		+	+	+	+	+	+
		TR	100						+	+									+		+	+	+	+	+	+
1745 sec-amyl alcohol CH3(CH2)2CH(OH)CH3 C5H12O	2-pentanol	TR	20						+	+									+		+	+	+	+	+	+
		TR	40						+	+									+		+	+	+	+	+	+
		TR	60						+	+									+		+	+	+	+	+	+
		TR	80						+	+									+		+	+	+	+	+	+
		TR	100						+	+									+		+	+	+	+	+	+
	TR	120						+	+									+		+	+	+	+	+	+	
1763 ammonium iron(III) sulfate NH4Fe(SO4)2 H4FeNO8S2	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	10%	60	0	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	80			+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	
	wä	10%	100					+	+	+									+	+	+	+	+	+	+	
	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	
	wä	GL	80			+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	
wä	GL	100					+	+	+									+	+	+	+	+	+	+		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	Material																									
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537		
1821 chlorine dioxide, neutral solution (pH 7)	wä	0,5%	20	0	-	-	-	-	+	+	-	-	-	-	-	0	+	+	+	-	+	+	+					
1955 N,N-dimethylacetamide	TR		20	-	-	-	-	-	+	+	-	-	-					+		+	+	+	+	+	+	+		
	DMAc	TR	40						+	+								+		+	+	+	+	+	+	+		
		TR	60						+	+								+		+	+	+	+	+	+	+		
	CH3CON(CH3)2	TR	80						+	+								+					+	+	+	+		
	C4H9NO	TR	100						+	+								+					+	+	+	+		
		TR	120						+	+								+					+	+	+	+		
2143 ethylene glycol monobutyl ether	tr	TR	20	-					+	+										+	+	+	+	+	+	+		
	2-butoxyethanol	tr	TR	40					+	+										+	+	+	+	+	+	+		
	butyl Cellosolve	tr	TR	60					+	+										+	+	+	+	+	+	+		
	CH3(CH2)3OCH2CH2OH	tr	TR	80					+	+										+	+	+	+	+	+	+		
	C6H14O2	tr	TR	100					+	+										+	+	+	+	+	+	+		
2185 n-decane	TR		20					+	+	+					-	+	+	+	+		+	+	+	+	+	+		
		TR	40					+	+	+						+	+	+	+		+	+	+	+	+	+		
		TR	60					+	+	+								+	+		+	+	+	+	+	+		
	CH3(CH2)8CH3	TR	80					+	+	+								+	+		+	+	+	+	+	+		
	C10H22	TR	100					+	+	+								+	+		+	+	+	+	+	+		
		TR	120					+	+	+								+	+		+	+	+	+	+	+		

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## Chemical Resistance

Release Date: 2023-04-24

Condition	Concentration	Temperature [°C]	PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FKM+	FFKM	SSiC	Carbon	Al2O3	Al2O3 Sensor	ZrO2	V2A 1,4301	V4A 1,4571	Hast-C 2,4537
			<b>2218 pivaloyl chloride</b> trimethylacetyl chloride (CH3)3CCOCl C5H9ClO																							
	TR	20						+	+										+		+	+	+			
	TR	40						+	+										+		+	+	+			
	TR	60						+	+										+		+	+	+			
	TR	80						+	+										+		+	+	+			
	TR	100						+	+										+		+	+	+			
<b>2260 ethylene glycol monomethyl ether</b> 2-methoxyethanol methyl Cellosolve CH3OCH2CH2OH C3H8O2																										
	TR	20						+	+		-				+	-	+	+	+		+	+	+	+	+	+
	TR	40						+	+						+		+	+	+		+	+	+	+	+	+
	TR	60						+	+								+	+	+		+	+	+	+	+	+
	TR	80						+	+								+	+	+		+	+	+	+	+	+
	TR	100						+	+								+	+	+		+	+	+	+	+	+
<b>2776 argon</b> Ar																										
gf	TR, GK	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+
gf	TR, GK	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+
gf	TR, GK	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+
gf	TR, GK	80		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	+
gf	TR, GK	100			+	+	+	+	+		+	+			+	+	+	+	+					+	+	+
gf	TR, GK	120					+	+	+						+	+	+	+	+					+	+	+

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