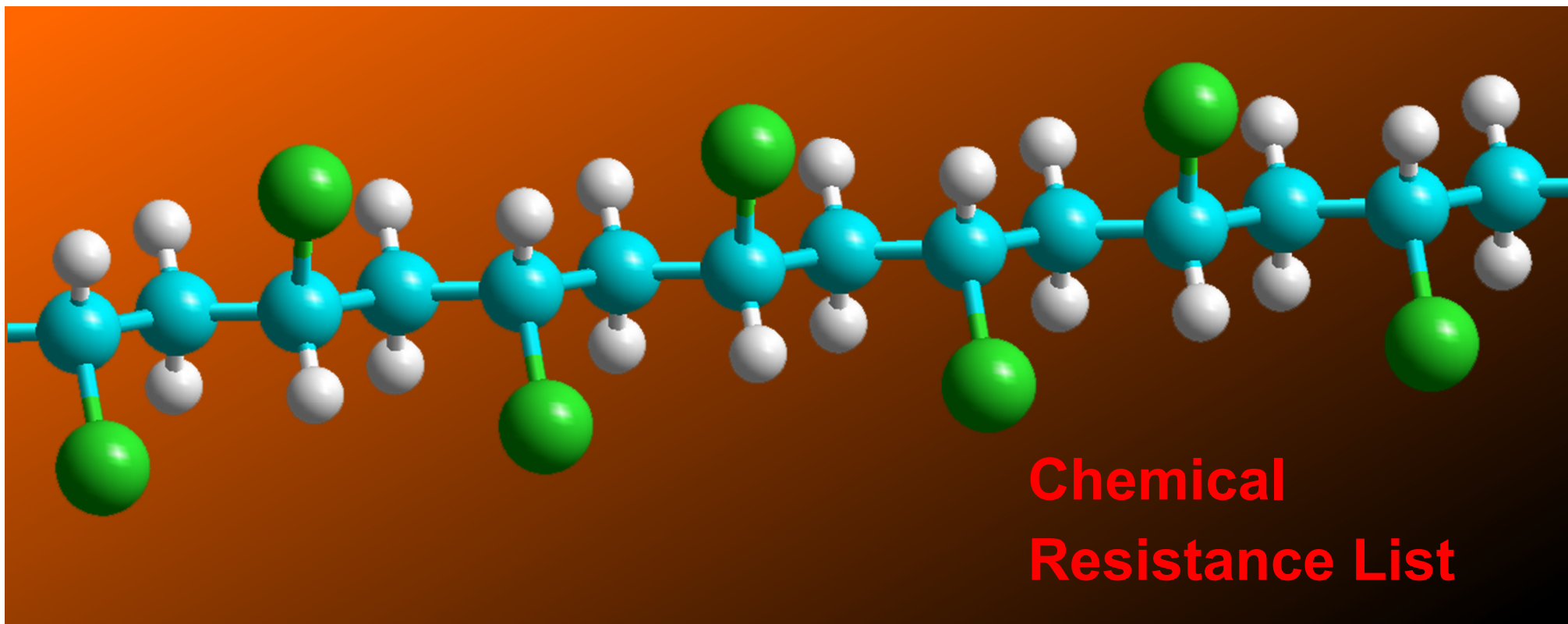




This document is only intended as an orientation aid for material selection and is not binding. No guarantee can be given that the resistance indicated here generally applies to each individual application. Moreover, this document does not give an assurance of particular material properties.

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 whole 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 Hazardous Substances

The majority of media listed here are hazardous 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. <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>	−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 ₂ O ₃	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 ₂ O ₃ Sensor	Aluminium oxide ceramics based sensors of product groups HFT und PTM. Resistance similar Al ₂ O ₃ , but with limitations due to the electronics embedded in the ceramic matrix.	–25°C	+125°C
ZrO ₂	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

Release Date: 2025-09-05

acetaldehyde	1014
acetamide	1015
acetanilide	1017
acetic acid	1310
acetic acid amide	1015
acetic acid amyl ester	1078
acetic acid anilide	1017
acetic acid butyl ester	1160
acetic acid ethyl ester	1317
acetic acid methyl ester	1481
acetic acid potassium salt	1386
acetic acid sodium salt	1509
acetic acid vinyl ester	1695
acetic anhydride	1016
acetone	1018
acetonitrile	1020
acetophenone	1021
acetylacetone	1022
acetylbenzene	1021
acetyl chloride	1023
acetylene	1024
acetylene tetrachloride	1670
2-acetyloxybenzoic acid	1025
acetylsalicylic acid	1025
O-acetylsalicylic acid	1025
acrylic acid butyl ester	1028
acrylic acid ethyl ester	1318

acrylonitrile	1027
adipic acid	1029
air	1461
alkanesulfonic acids (mixtures)	1031
alkyl sulfates	1332
allyl alcohol	1032
allyl chloride	1033
alum	1030
alumina	1044
aluminium acetate basic	1034
aluminium ammonium sulfate	1035
aluminium chlorate	1036
aluminium chloride	1037
aluminium fluoride	1040
aluminium fluorosilicate	1041
aluminium hydroxide	1042
aluminium iron(II) sulfate	1039
aluminium nitrate	1043
aluminium oxide	1044
aluminium sulfate	1045
aluminium trifluoride	1040
amidosulfonic acid	1657
aminoacetic acid	1051
amino acids	1052
p-aminoazobenzene	1048
aminobenzene	1083
4-aminobenzenesulfonic acid	1050

4-aminobenzoic acid	1049
1-aminobutane	1161
aminocarboxylic acids	1052
aminocyclohexane	1250
2-aminoethanol	1313
2-aminoglutaric acid	1358
(R)-2-amino-3-mercaptopropionic acid	1253
aminomethane	1482
aminosulfuric acid	1657
ammonia, aqueous solution	1054
ammonia, gaseous	1053
ammonium acetate	1056
ammonium alum	1035
ammonium aluminium sulfate	1035
ammonium benzoate	1057
ammonium bicarbonate	1066
ammonium bisulfate	1067
ammonium bisulfide	1068
ammonium bromide	1058
ammonium carbonate	1059
ammonium chloride	1060
ammonium citrate	1061
ammonium dichromate	1062
ammonium dihydrogenphosphate	1099
ammonium fluoride	1063
ammonium formate	1065
ammonium heptamolybdate	1069

List of Media

Release Date: 2025-09-05

ammonium hexafluorosilicate	1064
ammonium hydrogencarbonate	1066
ammonium hydrogenphosphate	1073
ammonium hydrogensulfate	1067
ammonium hydrogensulfide	1068
ammonium hydroxide	1054
ammonium iron(II) sulfate	1046
ammonium iron(III) sulfate	1763
ammonium metatungstate	1055
ammonium molybdate	1069
ammonium nitrate	1070
ammonium oxalate	1071
ammonium peroxodisulfate	1072
ammonium persulfate	1072
ammonium rhodanide	1074
ammonium sulfamate	1075
ammonium sulfate	1076
ammonium sulfide	1077
ammonium thiocyanate	1074
amyl acetate	1078
amyl alcohol	1079
amyl alcohol (mixture of isomers)	1583
sec-amyl alcohol	1745
amyl chloride	1080
amyl laurate	1081
p-tert-amyl phenol	1082
aniline	1083

aniline sulfate	1084
aniline sulfite	1085
aniline-4-sulfonic acid	1050
anilinium sulfate	1084
anilinium sulfite	1085
p-anisaldehyde	1086
anise oil	1088
anisole	1087
ANTIFROGEN L	1752
antimony pentachloride	1091
antimony trichloride	1092
antimony(III) chloride	1092
antimony(V) chloride	1091
aqua regia	1425
argon	2776
arsenic acid	1095
arsenic sulfides	1096
arsenic trioxide	1097
arsenic(III) oxide	1097
arsenious acid	1094
arsenious acid anhydride	1097
L(+)-ascorbic acid	1098
9-azafluorene	1197
1-azanaphthalene	1202
barium carbonate	1100
barium chloride	1101
barium cyanide	1102

barium hydroxide	1103
barium nitrate	1104
barium peroxide	1105
barium sulfate	1106
barium sulfide	1107
baryta white	1106
beer	1129
beer colour	1130
benzal chloride	1110
benzaldehyde	1111
benzaldehyde oxime	1090
benzamide	1112
benzene	1117
benzenecarboxylic acid	1116
benzene-1,2-dicarboxylic acid	1598
benzenesulfonic acid	1120
benzine	1447
benzoic acid	1116
benzoic acid amide	1112
benzoic acid ammonium salt	1057
benzoic acid anhydride	1118
benzoic acid calcium salt	1172
benzoic acid chloride	1121
benzoic acid sodium salt	1119
benzoic anhydride	1118
benzophenone	1290
benzoyl chloride	1121

List of Media

Release Date: 2025-09-05

benzyl alcohol	1122
benzyl chloride	1123
N-benzyl-N-ethylaniline	1124
N-benzyl-N-ethylphenylamine	1124
benzylidene chloride	1110
beryllium chloride	1126
beryllium fluoride	1127
beryllium sulfate	1128
biphenyl	1287
1,1-bis(4-chlorophenyl)-2,2,2-trichloroethane	1255
bis(2-hydroxyethyl)amine	1271
bis(2-hydroxyethyl)ether	1273
bleaching lime	1215
borax	1546
boric acid	1142
boric acid trimethyl ester	1689
(+/-)-borneol	1417
boron trichloride	1143
boron trifluoride	1144
brandy	1711
brine	1525
brine	1624
bromine	1148
1-bromobutane	1162
1-bromo-2-chloroethane	1145
bromochloromethane	1210

bromoethane	1147
bromoform	1149
bromomethane	1483
1,3-butadiene	1152
butane	1154
butane-1,4-dicarboxylic acid	1029
butanedioic acid	1125
1,4-butanediol	1153
1-butanethiol	1156
butanoic acid	1159
1-butanol	1155
2-butanol	1739
butanone	1328
trans-2-butenal	1239
1-butene	1157
cis-2-butene-1,4-dioic acid	1470
trans-2-butenic acid	1241
2-butoxyethanol	2143
butyl Cellosolve	2143
butyl acetate	1160
butyl acrylate	1028
butyl alcohol	1155
sec-butyl alcohol	1739
butylamine	1161
butyl bromide	1162
butyl chloride	1163
butylene	1157

butyl ether	1260
1-butyl mercaptan	1156
4-tert-butylphenol	1164
butyl phosphate	1165
butylstearate	1653
1-butyne	1158
butyric acid	1159
cadmium acetate	1166
cadmium chloride	1167
cadmium cyanide	1168
cadmium sulfate	1169
calcium acetate	1170
calcium acetylide	1174
calcium arsenate	1171
calcium benzoate	1172
calcium bicarbonate	1180
calcium bisulfite	1192
calcium bromide	1173
calcium carbide	1174
calcium carbonate	1175
calcium chlorate	1176
calcium chloride	1177
calcium chloride hypochlorite	1215
calcium chromate	1178
calcium dihydrogenphosphate	1188
calcium fluoride	1179
calcium hydrogencarbonate	1180

List of Media

Release Date: 2025-09-05

calcium hydrogensulfide	1181
calcium hydrogensulfite	1192
calcium hydroxide	1182
calcium hypochlorite	1183
calcium nitrate	1184
calcium othoarsenate	1171
calcium oxalate	1185
calcium permanganate	1186
calcium peroxide	1187
calcium sulfate	1189
calcium sulfide	1190
calcium sulfite	1191
(+/-)-camphor	1193
camphor oil	1194
e-caprolactam	1195
e-caprolactone	1196
carbamide	1363
carbazole	1197
carbide	1174
carbon dioxide	1423
carbon disulfide	1199
carbon monoxide	1424
carbon tetrabromide	1669
carbon tetrachloride	1672
carbonic acid diamide	1363
carbonic acid dichloride	1591
carbonyl dichloride	1591

Carbowax	1604
carboxylic acids > C6	1335
Caro's acid	1200
caustic soda	1547
cetylic acid	1578
chloral	1682
chloral hydrate	1206
chloramine B	1207
chloramine mixture: NaOCl + NH3	1728
chloramine mixture: NaOCl + (NH4)2SO4	1729
chloric acid	1219
chlorinated lime	1215
chlorine	1213
chlorine, aqueous solution	1224
chlorine dioxide, neutral solution (pH 7)	1821
chloroacetaldehyde	1204
chloroacetic acid	1211
chloroacetic acid ethyl ester	1501
chloroacetic acid methyl ester	1502
chloroacetone	1205
chloroallyl chloride	1268
chlorobenzene	1208
N-chlorobenzenesulfonic acid amide sodium salt	1207
1-chlorobutane	1163
4-chloro-m-cresol	1216
chlorodifluoromethane	1347

1-chloro-2,3-epoxypropane	1307
chloroethanal	1204
chloroethane	1320
chloroethanol	1212
chloroethylene	1696
chloroform	1217
1-chloro-4-hydroxy-2-methylbenzene	1216
chloromethane	1484
chloromethyloxirane	1307
4-chloro-3-methylphenol	1216
1-chloropentane	1080
chlorophenol (2-, 3- a. 4-)	1218
chloropicrin	1686
3-chloro-1,2-propanediol	1361
1-chloro-2-propanone	1205
3-chloropropene	1033
chlorosulfonic acid	1220
chlorosulfuric acid	1220
chlorotoluene (2-, 3- a. 4-)	1221
a-chlorotoluene	1123
chlorotrifluoroethylene	1222
chromatite	1178
chromic acid	1232
chromium alum	1226
chromium(III) chloride	1227
chromium(III) fluoride	1228
chromium(III) hydroxide	1229

List of Media

Release Date: 2025-09-05

chromium(III) nitrate	1230	cresol sulfonic acid	1428	dibenzo[b,d]pyrrole	1197
chromium(III) oxide	1231	crotonaldehyde	1239	1,2-dibromoethane	1321
chromium(III) potassium sulfate	1226	crotonic acid	1241	dibutyl ether	1260
chromosulfuric acid	1235	crude oil	1309	dibutyl phthalate	1261
chromosulfuric acid	1236	cumene	1242	dichloroacetic acid	1263
chromosulfuric acid	1237	cyanamide	1243	dichlorobenzene (o-, m- a. p-)	1262
chromosulfuric acid	1234	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

List of Media

Release Date: 2025-09-05

1,4-dihydroxybenzene	1373
diisobutyl ketone	1277
diisopropyl ether	1278
N,N-dimethylacetamide	1955
dimethylamine	1279
N,N-dimethylaniline	1280
dimethylbenzene (mixture of isomers)	1715
dimethylene oxide	1326
dimethylformamide	1282
N,N-dimethylformamide	1282
2,6-dimethyl-4-heptanone	1277
1,1-dimethylhydrazine	1283
dimethyl ketone	1018
dimethyl phthalate	1284
dimethyl sulfate	1491
1,4-dioxane	1286
diphenyl	1287
diphenylamine	1288
diphenyl ether	1289
diphenyl ketone	1290
diphenyl oxide	1289
disodium hydrogenphosphate	1285
disodium tetraborate	1546
DMAc	1955
DMF	1282
DMP	1284
dodecanoic acid	1442

dodecanoic acid pentyl ester	1081
1-dodecanol	1444
dodecanoyl chloride	1443
EDTA	1323
EDTA DiNa-salt	1731
EDTA TetraNa-salt	1735
epichlorohydrin	1307
1,2-epoxypropane	1610
ethanal	1014
ethane	1311
ethane-1,2-diamine	1322
ethane-1,2-dicarboxylic acid	1125
ethanedioic acid	1575
1,2-ethanediol	1324
ethanenitrile	1020
ethanoic acid	1310
ethanoic anhydride	1016
ethanoic chloride	1023
ethanol	1312
ethanolamine	1313
ethene	1314
ether	1274
ethinylcarbinol	1607
ethyl acetate	1317
ethyl acrylate	1318
ethyl alcohol	1312
ethylbenzene	1319

ethyl bromide	1147
ethyl chloride	1320
ethyl chloroacetate	1501
ethyl cyanoacetate	1244
ethylene	1314
ethylene bromide	1321
ethylene chloride	1264
ethylene chlorohydrin	1212
ethylenediamine	1322
ethylenediaminetetraacetic acid	1323
ethylenediaminetetraacetic acid disodium salt	1731
ethylenediaminetetraacetic acid tetrasodium salt	1735
ethylene glycol	1324
ethylene glycol diethyl ether	1325
ethylene glycol dinitrate	1559
ethylene glycol monobutyl ether	2143
ethylene glycol monomethyl ether	2260
ethylene oxide	1326
ethyl ether	1274
2-ethyl-1-hexanol	1316
ethyl methyl ketone	1328
N-ethyl-N-phenylbenzylamine	1124
ethyne	1024
fatty acids > C6	1335
fatty alcohol sulfates	1332
fatty alcohols	1331

List of Media

Release Date: 2025-09-05

fatty alcohol ethoxylate isoC13O(EO)8	1353
ferric chloride	1298
ferric sulfate	1300
fish liver oil	1446
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

List of Media

Release Date: 2025-09-05

hydroxylamine sulfate	1374
hydroxylammonium sulfate	1374
2-hydroxymethylfuran	1352
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

List of Media

Release Date: 2025-09-05

marmelade	1474
mercaptoacetic acid	1676
mercury	1612
mercury(II) chloride	1614
mercury(II) cyanide	1615
mercury(II) nitrate	1616
methacrylic acid methyl ester	1489
methanal	1340
methane	1477
methanedicarboxylic acid	1478
methanesulfonic acid	1480
methanoic acid	1047
methanol	1479
4-methoxybenzaldehyde	1086
methoxybenzene	1087
2-methoxyethanol	2260
methyl acetate	1481
methyl Cellosolve	2260
methyl chloride	1484
methyl formate	1487
methyl salicylate	1490
methylacetic acid	1608
methyl alcohol	1479
methylamine	1482
methylbenzene	1679
4-methylbenzenesulfonic acid	1582
methylbromide	1483

4-(2-methyl-2-butyl)phenol	1082
methyl chloroacetate	1502
methyl cyanide	1020
methylcyclohexane	1485
methylene chloride	1266
methyl ethyl ketone (MEK)	1328
methyl isobutyl ketone (MIBK)	1488
methyl methacrylate	1489
4-methyl-2-pentanone	1488
methylphenol (o-, m-, a. p-)	1427
methyl phenyl ether	1087
methyl phenyl ketone	1021
(S)-(-)-1-methyl-2-(3-pyridyl)pyrrolidine	1554
methylsulfuric acid	1480
milk	1492
milk sugar	1439
mineral oils	1494
mineral water	1704
mixed acid: H2SO4 18%, HNO3 15%, HF 5%	1499
mixed acid: H2SO4 25%, HNO3 25%, HF 10%	1506
mixed acid: H2SO4 50%, HNO3 33%	1497
mixed acid: H2SO4 50%, HNO3 50%	1498
mixed acid: HCl 27%, HNO3 18%	1425
mixed acid: HNO3 12%, HF 5%	1723
mixed acid: HNO3 20%, H2SO4 10%	1495
mixed acid: HNO3 20%, HF 5%	1724

mixed acid: HNO3 50%, HF 10%	1500
mixed acid: HNO3 59%, HF 4,5%	1503
mixed acid: HNO3 87%, H2SO4 10%	1496
molasses	1476
Monoamyl phthalate	1599
monobutyl phthalate	1600
monochloroacetic acid	1211
monochloroacetic acid ethyl ester	1501
monochloroacetic acid methyl ester	1502
monochloroacetone	1205
monochlorobenzene	1208
monopentyl phthalate	1599
morpholine	1505
murcury(II) sulfate	1613
naphthalene	1507
naphthalene sulfonic acid (mixture of isomers)	1508
natural gas	1308
niacin	1555
nickel(II) chloride	1548
nickel(II) nitrate	1549
nickel(II) sulfate	1550
nickel(II) sulfide	1551
nickel(II) sulfite	1552
nickel(II) L-tartrate	1553
(S)-(-)-nicotine	1554
nicotinic acid	1555

List of Media

Release Date: 2025-09-05

nitric acid	1621
2,2',2"-nitrilotriethanol	1687
nitrobenzene	1556
nitrobenzoic acid (o-, m- a. p-)	1557
nitrogen	1659
nitroglycol	1559
nitrophenol (o-, m- a. p-)	1560
nitrotoluene (o-, m- a. p-)	1562
nitrotrichloromethane	1686
nitrous acid	1622
nitrous gases	1007
cis,cis-9,12-octadecadienoic acid	1453
octadecanoic acid	1652
octadecanoic acid butyl ester	1653
cis-9-octadecenoic acid	1573
n-octane	1566
octyloxytoluene (o-, m-, a. p-)	1567
octyl tolyl ether (o-, m-, a. p-)	1567
oil (vegetable + animal)	1569
oil of turpentine	1668
oleic acid	1573
oleum	1570
oleum vapours	1571
olive oil	1572
orthophosphoric acid	1574
orthosilicic acid	1421
oxalic acid	1575

oxalic acid calcium salt	1185
oxalic acid diammonium salt	1071
oxalic acid iron salts	1303
oxirane	1326
oxolane	1674
oxygen	1625
ozone	1576
PABA	1049
PAC	1603
palm kernel oil	1579
palm seed oil	1579
palmitic acid	1578
paraffin oil	1694
2,4-pentanedione	1022
pentanol (mixture of isomers)	1583
1-pentanol	1079
2-pentanol	1745
3-pentanone	1275
1-pentyl acetate	1078
1-pentyl chloride	1080
perchloric acid	1585
perchloroethane	1584
perchloroethylene	1671
peroxomonosulfuric acid	1200
peroxosulfuric acid	1200
petrol-benzene mixture	1115
petroleum	1309

petroleum ether	1447
phenol	1588
N-phenylacetamide	1017
phenylamine	1083
N-phenylaniline	1288
4-phenylazoaniline	1048
phenylethane	1319
phenyl ether	1289
phenylethylene	1656
phenylformic acid	1116
phenylhydrazine	1590
2-phenylpropane	1242
phenylsulfonic acid	1120
phosgene	1591
phosphane	1594
phosphine	1594
phosphoric acid	1574
phosphoric acid butyl ester	1165
phosphoric acid tributyl ester	1681
phosphoric acid trichloride	1597
phosphoric acid trioctyl ester	1690
phosphoroxy chloride	1597
phosphorus pentoxide	1596
phosphorus trichloride	1595
phosphorus(III) chloride	1595
phosphorus(V) oxide	1596
phosphoryl chloride	1597

List of Media

Release Date: 2025-09-05

phthalic acid	1598
phthalic acid dibutyl ester	1261
phthalic acid dimethyl ester	1284
phthalic acid monobutyl ester	1600
phthalic acid monopentyl ester	1599
picric acid	1601
pivaloyl chloride	2218
polyaluminium chloride	1603
polydimethylsiloxane	1643
polyethylene glycol	1604
polyglycol, PEG	1604
potash	1395
potash lye	1384
potassium acetate	1386
potassium alum	1030
potassium aluminium sulfate	1030
potassium bicarbonate	1387
potassium bisulfate	1389
potassium bisulfite	1390
potassium borate	1392
potassium bromate	1393
potassium bromide	1394
potassium carbonate	1395
potassium chlorate	1396
potassium chloride	1397
potassium chlorite	1398
potassium chromate	1399

potassium chromium(III) sulfate	1226
potassium cyanate	1400
potassium cyanide	1401
potassium dichromate	1388
potassium dihydrogenphosphate	1411
potassium ferricyanide	1330
potassium ferrocyanide	1329
potassium fluoride	1402
potassium hexacyanoferrate(II)	1329
potassium hexacyanoferrate(III)	1330
potassium hydrogencarbonate	1387
potassium hydrogensulfate	1389
potassium hydrogensulfite	1390
potassium hydrogen-L-tartrate	1391
potassium hydroxide	1384
potassium hypochlorite	1403
potassium iodate	1404
potassium iodide	1405
potassium manganate(VII)	1409
potassium metaborate	1406
potassium nitrate	1385
potassium nitrite	1407
potassium perchlorate	1408
potassium permanganate	1409
potassium peroxodisulfate	1410
potassium persulfate	1410
potassium polyiodide solution	1381

potassium sulfate	1412
potassium sulfide	1413
potassium sulfite	1414
potassium L-tartrate	1415
propane	1605
propanedioic acid	1478
1,2-propanediol	1609
propanetriol	1360
propanoic acid	1608
1-propanol	1606
2-propanol	1378
propanone	1018
propargyl alcohol	1607
propene oxide	1610
2-propenoic acid ethyl ester	1318
propenol	1032
2-propin-1-ol	1607
propionic acid	1608
propyl alcohol	1606
propylene oxide	1610
propylene chloride	1267
1,2-propylene glycol	1609
prussiate, red	1330
prussiate, yellow	1329
pure water	1705
pyridine	1611
pyridine-3-carboxylic acid	1555

List of Media

Release Date: 2025-09-05

quinine	1201
quinol	1373
quinoline	1202
salicylic acid	1620
salicylic acid methyl ester	1490
Schweinfurter Green	1431
seawater	1703
silicic acid	1421
silicone oil	1643
silver acetate	1638
silver chloride	1639
silver cyanide	1640
silver nitrate	1641
silver sulfate	1642
slaked lime	1182
soap	1627
soap hydrous solution	1637
soda	1522
soda lye	1547
soda water glass	1542
sodium acetate	1509
sodium aluminate	1510
sodium arsenate	1511
sodium arsenite	1512
sodium benzoate	1119
sodium bicarbonate	1513
sodium bisulfate	1515

sodium bisulfide	1517
sodium bisulfite	1518
sodium bromate	1520
sodium bromide	1521
sodium carbonate	1522
sodium chlorate	1524
sodium chloride	1525
sodium chlorite	1526
sodium chromate	1527
sodium citrate	1528
sodium cyanide	1529
sodium dichromate	1514
sodium fluoride	1530
sodium fluorosilicate	1420
sodium formate	1531
sodium hexafluorosilicate	1420
sodium hydrogencarbonate	1513
sodium hydrogenphosphate	1285
sodium hydrogensulfate	1515
sodium hydrogensulfide	1517
sodium hydrogensulfite	1518
sodium hydroxide	1547
sodium hypochlorite	1209
sodium hypophosphite	1533
sodium iodide	1534
sodium lactate	1535
sodium metasilicate	1542

sodium nitrate	1536
sodium nitrite	1537
sodium perborate	1519
sodium perchlorate	1538
sodium peroxide	1539
sodium peroxoborate	1519
sodium peroxodisulfate	1540
sodium persulfate	1540
sodium phosphate	1541
sodium phosphinate	1533
sodium silicate	1542
sodium sulfate	1543
sodium sulfide	1544
sodium sulfite	1545
sodium tetraborate	1546
sodium thiosulfate	1089
soft soap	1627
sperm oil	1644
spin bath acid with carbondisulfide	1646
starch	1649
starch gum	1258
starch sirup	1650
stearic acid	1652
stearic acid butyl ester	1653
strontium chloride	1655
styrene	1656
succinic acid	1125

List of Media

Release Date: 2025-09-05

sugar sirup	1722
sulfamic acid	1657
sulfamic acid ammonium salt	1075
sulfanilic acid	1050
sulfur	1628
sulfur dioxide, aqueous solution	1636
sulfur dioxide, gaseous	1629
sulfur trioxide	1634
sulfuric acid	1632
sulfuric acid anhydride	1634
sulfuric acid dimethyl ester	1491
sulfurous acid	1636
sulfurous acid dichloride	1677
SurTec 104 universal cleaner	1658
table salt	1525
Tanigan® extra A	1660
Tanigan® extra B	1661
Tanigan® extra D	1662
Tanigan® F	1663
Tanigan® U	1664
tannic acid	1665
tannin	1665
tartar	1391
L(+)-tartaric acid	1713
L(+)-tartaric acid dipotassium salt	1415
L(+)-tartaric acid monopotassium salt	1391
L(+)-tartaric acid nickel salt	1553

tartaric acid, naturally	1713
TBP	1681
TCE	1670
TEL	1673
tetrabromomethane	1669
1,1,2,2-tetrachloro-1,2-difluoroethane	1343
1,1,2,2-tetrachloroethane	1670
tetrachloroethene	1671
tetrachloroethylene	1671
tetrachloromethane	1672
1-tetracosanol	1698
tetraethyllead	1673
tetrafluoroboric acid	1337
1,2,3,4-tetrahydrobenzene	1249
tetrahydrofuran	1674
1,2,3,4-tetrahydronaphthalene	1675
tetrahydro-1,4-oxazine	1505
Tetralin®	1675
tetramethylene glycol	1153
THF	1674
thioglycolic acid	1676
thionyl chloride	1677
thiophene	1678
tin(II) chloride	1721
Titriplex® II	1323
Titriplex® III	1731
toluene	1679

p-toluenesulfonic acid	1582
triammonium citrate	1061
tribromomethane	1149
tributyl phosphate	1681
trichloroacetaldehyde	1682
trichloroacetaldehyde hydrate	1206
trichloroacetic acid	1684
trichlorobenzene (mixture of isomers)	1683
trichloroborane	1143
trichloroethene	1685
trichloroethylene	1685
trichlorofluoromethane	1342
trichloromethane	1217
trichloronitromethane	1686
1,2,2-trichloro-1,1,2-trifluoroethane	1344
triethanolamine	1687
triethylene glycol	1688
trifluoroborane	1144
trifluorovinyl chloride	1222
triglyceride	1333
triglycol	1688
1,2,6-trihydroxyhexane	1366
2,6,8-trihydroxypurine	1362
trimethylacetyl chloride	2218
trimethyl borate	1689
2,2,4-trimethylpentane	1377
2,4,6-trinitrophenol	1601

List of Media

Release Date: 2025-09-05

trioctyl phosphate	1690
trioxygen	1576
trisodium citrate	1528
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: 2025-09-05

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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: 2025-09-05

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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: 2025-09-05

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
1015 acetamide acetic acid amide CH3CONH2 C2H5NO	acetamide	20	wä	GL	20	+	+	+	+	+	+	+	+	0	-	+	+	+	+	+	+	+	+	+	+	+
		40	wä	GL	40	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
		60	wä	GL	60	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
		80	wä	GL	80	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
		100	wä	GL	100	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
1016 acetic anhydride ethanoic anhydride (CH3CO)2O C4H6O3	acetic anhydride	20		TR	20	-	+	+	+	-	+	+	-	+	-	+	-	+	+	+	+	+	+	0	+	+
		40		TR	40		0	0	0		+	+	0					+	+	+	+	+	+	+	+	+
		60		TR	60		-	-	-		+	+	-					+	+	+	+	+	+	+	+	+
		80		TR	80					+	+							+	+	+	+	+	+	+	+	+
		100		TR	100					+	+							+	+	+	+	+	+	+	+	+
		120		TR	120					+	+							+	+	+	+	+	+	+	+	+
1017 acetanilide N-phenylacetamide acetic acid anilide CH3CONHC6H5 C8H9NO	acetanilide	20	wä	GL	20	+				+	+			0	-	0	0		+	+	+	+	+			
		40	wä	GL	40	+				+	+					0	0		+	+	+	+	+			
		60	wä	GL	60					+	+					0	0		+		+	+	+			
		80	wä	GL	80					+	+					0	0		+		+	+	+			
		100	wä	GL	100					+	+							+								

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

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Chemical Resistance

Release Date: 2025-09-05

		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	
1018	acetone	wä	1%	20	-	+	+	+	+	+	+		+	+		-	+	-	-	+	+	+	+	+	+	+	+	+	
propanone dimethyl ketone CH3COCH3 C3H6O P		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		+	+	+		+	+	+	+		+						+	+	+	+	+	+	+	+	+	+	
1020	acetonitrile		TR	20	-	+	+	+	+	+	+		-	+		0	-	0	0	+	+	+	+	+	+	+	+	+	
ethanenitrile methyl cyanide CH3CN C2H3N P			TR	40	-	+	+	+	+	+	+			+		0		0	0	+	+		+	+	+	+	+	+	
			TR	60	-	+	+	+	0	+	+			+			0		0	0		+				+	+	+	+
			TR	80							+	+										+				+	+	+	+
1021	acetophenone		TR	20	-	+	+	+	-	+	+	-		+						+	+		+	+	+	+	+	+	
acetylbenzene methyl phenyl ketone C6H5COCH3 C8H8O			TR	40			+	+		+	+			+						+	+		+	+	+	+	+	+	
			TR	60			0	0			+	+			0						+	+		+	+	+	+	+	+
			TR	80				-	-		+	+			-							+		+	+	+	+	+	+
			TR	100							+	+										+					+	+	+
			TR	120							+	+															+	+	+
																											+	+	+

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Chemical Resistance

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

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	
1022	acetylacetone	TR	20	-			-	+	+	-																	
		TR	40	-				+	+																		
		TR	60	-					+	+																	
		TR	80						+	+																	
		TR	100						+	+																	
1023	acetyl chloride	TR	20	-	0	0	0	-	+	+	-			-	-	-	-	+	+		+	+	+				
		TR	40		-	-	-		+	+								+	+		+						
		TR	50						+	+									+		+						
1024	acetylene	gf	TR, GK	20	+	+	+	+		+	+			+	+	-	+	+	+	+					+	+	+
		gf	TR, GK	40						+	+					+		+	+	+	+				+	+	+
		gf	TR, GK	60						+	+					+		+	+	+	+				+	+	+
		gf	TR, GK	80						+	+																
		gf	TR, GK	100						+	+																
1025	acetylsalicylic acid	wä	GL	20	+	+	+	+		+	+			+				+	+	+	+	+	+	+	+	+	
		wä	GL	40		+	+	+		+	+			+					+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+		+	+			+					+	+	+	+	+	+	+	+	
		wä	GL	80						+	+								+	+		+	+	+		+	
		wä	GL	100						+	+									+						+	
1027	acrylonitrile	TR	20	-	+	+	+	0	+	+	0		+		-	+	0	0	+	+	+	+	+	+	+	+	
		TR	40		+	0	0	-	+	+	0		0			+	0	0	+	+		+	+	+	+	+	
		TR	60		+				+	+						0	-	-		+		+	+	+	+	+	
		TR	80						+	+																+	

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

Chemical Resistance

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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
1028 acrylic acid butyl ester butyl acrylate CH ₂ =CHCO ₂ (CH ₂) ₃ CH ₃ C ₇ H ₁₂ O ₂	TR	20	-	+	+	+	+	+	+	+	+	+	+	-	0	-	-	+	+	+	+	+	+	+	+	+
	TR	40		0	0	0		+	+			0						+	+	+	+	+	+	+	+	+
	TR	60						+	+										+		+	+	+	+	+	+
	TR	80						+	+										+		+	+	+	+	+	+
	TR	100						+	+										+		+		+	+	+	+
1029 adipic acid butane-1,4-dicarboxylic acid hexanedioic acid HO ₂ C(CH ₂) ₄ CO ₂ H C ₆ H ₁₀ O ₄	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	40	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	60	0	+	+	+		+	+		+		+	+	+	+	+	+	+	+	+	+	+	+	+
	wä	GL	80			+	+		+	+		+						+	+		+	+				+
	wä	GL	100						+	+									+		+		+			+
1030 alum potassium aluminium sulfate potassium alum KAl(SO ₄) ₂ AlK ₂ O ₈ S ₂	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) RSO ₃ H	wä	10%	20	+	+	+	+	+	+					0	+	+	+	+	+	+	+	+	+			+
	wä	10%	40	+	+	+	+	+	+							+	+	+	+	+	+	+	+			+
	wä	10%	60	+				+	+	+							+	+	+		+	+	+			+
	wä	10%	80					+	+	+								+	+		+	+	+			+
	wä	10%	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
1032	allyl alcohol	TR	20	0	+	+	+	+	+	+	+	-	0	+	0	0	+	+	+	+	+	+	+	+	+	+
propenol 3-hydroxypropene CH2=CHCH2OH C3H6O	TR	40	-	+	+	+	+	+	+	+	+			0	-	-	+	+	+	+	+	+	+	+	+	
	TR	60		+	+	+	+	+	+	+	+			0			+	+	+	+	+	+	+	+	+	
	TR	80							+	+	+							+		+	+	+	+	+	+	
	TR	100							+	+	+							+		+		+	+	+	+	
1033	allyl chloride	TR	20	-	0			+	+	+					-			+	+	+	+	+	+	+	+	
3-chloropropene CH2=CHCH2Cl C3H5Cl	TR	40	-	-			+	+	+									+		+	+	+	+	+	+	
1034	aluminium acetate basic	wä	GL	20	+	+	+	+	+	+	+			+				+	+	+	+	+	+		+	
hydroxyaluminium diacetate (CH3CO2)2AlOH C4H7AlO5	wä	GL	40	+	+	+	+	+	+	+			+				+	+	+	+	+	+		+		
	wä	GL	60					+	+	+							+	+	+	+	+	+		+		
	wä	GL	80					+	+	+														+		
	wä	GL	100					+	+	+																
1035	aluminium ammonium sulfate	wä	GL	20	+	+	+	+	+	+	+			+	+			+	+	+	+	+	+		+	
ammonium aluminium sulfate ammonium alum AlNH4(SO4)2 H4AlNO8S2	wä	GL	40	+	+	+	+	+	+	+			+	+			+	+	+	+	+	+		+		
	wä	GL	60		+	+	+	+	+	+			+				+	+	+	+	+	+		+		
	wä	GL	80					+	+	+							+	+	+	+	+	+		+		
	wä	GL	100						+	+							+	+	+							
1036	aluminium chlorate	wä	GL	20	+				+	+	+							+	+	+	+	+		+		
Al(ClO3)3 AlCl3O9	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: 2025-09-05

		Condition	Concentration	T 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
1037	aluminium chloride	wä	10%	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	-	0	+	
AlCl3		wä	10%	40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+		-	+	
		wä	10%	60	+	+	+	+	+	+	+	0	0	+		0	+	+	+	+	+	+	+	+			+	
		wä	10%	80			+	+	+	+	+			+			+	+	+	+	+		+	+			+	
		wä	10%	100					+	+	+							+	+	+	+		+	+			+	
		wä	GL	20	+	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	-	-	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+		+	
		wä	GL	60	+	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+			+	
		wä	GL	80			+	+	+	+	+						+	+	+	+	+		+	+			+	
		wä	GL	100			0	0	+	+	+				0				+	+	+	+		+	+			+
1039	aluminium iron(II) sulfate	wä	GL	20	+	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+			+	
Al2Fe(SO4)4 Al2FeO16S4		wä	GL	40	+	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+			+	
		wä	GL	60		+	+	+	+	+	+			+						+	+	+	+	+	+		+	
		wä	GL	80					+	+	+									+	+	+	+	+	+		+	
		wä	GL	100						+	+									+	+	+					+	
1040	aluminium fluoride	wä	GL	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+						
aluminium trifluoride AlF3		wä	GL	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+						
		wä	GL	60		+	+	+	+	+	+			+		0	+	+	+	+	+	+						
		wä	GL	80					+	+	+					-	+	+	+	+	+	+						
		wä	GL	100					+	+	+						+	+	+	+	+	+						
1041	aluminium fluorosilicate		TR	20	+	+	+	+	+	+	+			+														
Al2F2(SiO4) Al2F2O4Si			TR	40						+	+																	
			TR	60						+	+																	
			TR	80						+	+																	
			TR	100						+	+																	

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

Release Date: 2025-09-05

		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	
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	+	+
Al2(SO4)3 Al2O12S3																													

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Chemical Resistance

Release Date: 2025-09-05

1046 ammonium iron(II) sulfate

(NH4)2Fe(SO4)2
H8FeN2O8S2

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

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
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Chemical Resistance

Release Date: 2025-09-05

1047		formic acid	wä	10%	20	+	+	+	+	+	+	-	+	+	+	-	+	0	+	+	+	+	+	+	+	+	+	+
methanoic acid HCO2H CH2O2 <																												

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Chemical Resistance

Release Date: 2025-09-05

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
1049 PABA 4-(NH2)C6H4CO2H C7H7NO2	4-aminobenzoic acid	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1050 sulfanilic acid aniline-4-sulfonic acid 4-(NH2)C6H4SO3H C6H7NO3S	4-aminobenzenesulfonic acid	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1051 glycine NH2CH2CO2H C2H5NO2	aminoacetic acid	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1052 aminocarboxylic acids NH2CH(R)CO2H	amino acids	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1053 NH3 H3N	ammonia, gaseous	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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Chemical Resistance

Release Date: 2025-09-05

Chemical Resistance			Material																										
Release Date: 2025-09-05																													
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			
1054 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	+	+	+	+	+	+	+	+	+	+	+			
1055 ammonium metatungstate (NH4)6H2W12O40 H26N6O40W12		TR	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		TR	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		TR	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		TR	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		TR	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
		TR	120	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
1056 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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Chemical Resistance

Release Date: 2025-09-05

		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
1057	ammonium benzoate	wä	GL	20		+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40		+	+	+	+						+						+	+	+	+	+			+
		wä	GL	60																	+	+	+	+	+			+
		wä	GL	80																	+	+	+	+	+			+
		wä	GL	100																	+	+	+	+				+
		benzoic acid ammonium salt																										
		C6H5CO2NH4																										
		C7H9NO2																										
1058	ammonium bromide	wä	GL	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+				+		+	+	+	+	+	+	+	+	+			+
		wä	GL	80			+	+	+	+	+				+		+	+	+	+	+	+	+	+	+			+
		wä	GL	100						+	+	+						+	+	+	+	+	+					+
		NH4Br																										
		H4BrN																										
1059	ammonium carbonate	wä	GL	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+		+	+	+	+	+
		wä	GL	40	+	+	+	+						+	+		+	+	+	+	+	+		+	+	+		+
		wä	GL	60	0										+			+	0	0	+	+		+		+		+
		wä	GL	80																	+	+						+
		wä	GL	100																	+	+						+
		(NH4)2CO3																										
		CH8N2O3																										
1060	ammonium chloride	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
		NH4Cl																										
		H4ClN																										
1061	ammonium citrate		TR	20	+				+	+	+																	
			TR	40	+				+	+	+																	
			TR	60	0				+	+	+																	
			TR	80					+	+	+																	
			TR	100						+	+																	
		triammonium citrate																										
		citric acid triammonium salt																										
		H4NO2CCH2C(OH)(CO2NH4)CH2CO2NH4																										
		C6H17N3O7																										

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: 2025-09-05

1062		ammonium dichromate		wä	GL	20	+	+	+	+	+	+							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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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: 2025-09-05

JBBE

Chemical Resistance

Release Date: 2025-09-05

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
1067	ammonium hydrogensulfate	wä	GL	20	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+		+	+	
ammonium bisulfate (NH4)HSO4 H5NO4S		wä	GL	40	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+		+	+	
		wä	GL	60			+	+	+			+		0	+	+	+	+	+	+	+	+			+	
		wä	GL	80				+	+	+						+	+	+	+	+	+	+			+	
		wä	GI	100					+	+								+	+	+					+	
1068	ammonium hydrogensulfide	wä	VL	20	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+		+	+	
ammonium bisulfide (NH4)HS H5NS		wä	VL	40	+			+	+	+				+	+	0	0	+	+	+	+	+		+	+	
		wä	VL	60	+			+	+	+				+	+	0	0	+	+	+	+	+	+		+	
		wä	VL	80				+	+	+						-	-	+	+	+	+	+	+			
		wä	VL	100				+	+	+								+	+	+						
1069	ammonium molybdate	wä	GL	20	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+			
ammonium heptamolybdate (NH4)6Mo7O24 H24Mo7N6O24		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
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page 17/176

Chemical Resistance

Release Date: 2025-09-05

		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	
1072	ammonium peroxodisulfate 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					+	+	+										+	+	+	+	+				
1073	ammonium hydrogenphosphate (NH4)2HPO4 H9N2O4P	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	+	+	+	+	+	+	+		+	+		0	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	80			+	+	+	+	+		+	+				+	+	+	+	+	+	+	+			+	
		wä	GL	100			+	+	+	+	+			+				+	+	+	+	+	+					+	
1074	ammonium thiocyanate ammonium rhodanide NH4SCN CH4N2S	wä	GL	20	+	+	+	+	+	+	+			+	+			+	+	+	+	+	+	+	+			+	
		wä	GL	40		+	+	+	+	+	+				+	+			+	+	+	+	+	+	+			+	
		wä	GL	60		+	+	+	+	+	+				+						+	+	+	+	+			+	
		wä	GL	80					+	+	+										+	+	+						
		wä	GL	100					+	+	+										+	+	+						
1075	ammonium sulfamate sulfamic acid ammonium salt NH2SO3NH4 H6N2O3S	wä	GL	20	+	+	+	+	+	+	+		+	+	+		+			+	+	+	+	+	+				
		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
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page 19/176

Chemical Resistance

Release Date: 2025-09-05

1077		ammonium sulfide		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	
(NH4)2S H8N2S	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+	+	+	+		+		
	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+		+		+	+	0	0	+	+	+	+	+	+		+		
	wä	10%	60	0	+	+	+	+	+	+	+	+	+	+		+		+	+	-	-	+	+	+	+	+	+		+		
	wä	10%	80			+					+	+	+	+		+						+	+		+		+				
	wä	10%	100								+	+	+	+								+	+								
	wä	20%	20	+	+	+	+	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+	+	+		+		
	wä	20%	40	+	+	+	+	+	+	+	+	+	+	+	+		+		+	+	0	0	+	+	+	+	+		+		
	wä	20%	60	0	+	+	+	+	+	+	+	+	+	+			+		+	+	-	-	+	+	+	+	+		+		
	wä	20%	80			+					+	+	+	+		+						+	+		+		+				
	wä	20%	100								+	+	+	+								+	+								
	wä	40%	20	+	+	+	+	+	+	+	+	+	+	+	-		+		+	+	+	+	+	+	+	+	+		+		
	wä	40%	40	+	+	+	+	+	+	+	+	+	+	+	-		+		+	+	0	0	+	+	+	+	+	+		+	
	wä	40%	60	0	+	+	+	+	+	+	+	+	+	+			+		+	+	-	-	+	+	+	+	+	+		+	
	wä	40%	80								+	+	+	+								+	+		+		+				
	wä	40%	100								+	+	+	+								+	+								
	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	-		+		+	+	+	+	+	+	+	+	+	+		+	
	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	-		+		+	+	0	0	+	+	+	+	+	+		+	
	wä	GL	60	0	+	+	+	+	+	+	+	+	+	+			+		+	+	-	-	+	+	+	+	+	+		+	
	wä	GL	80								+	+	+	+									+	+		+		+			
	wä	GL	100								+	+	+	+								+	+								

1078		amyl acetate		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
1-pentyl acetate acetic acid amyl ester CH3CO2C5H11 C7H14O2		TR	20	-	+	0	0				+	+	+			0		-	0	0	0	+	+		+	+	+	+	+	+
		TR	40	-	+	-	-				+	+	+				-			-	-	-	+	+		+	+	+	+	+
		TR	60	-	+	-	-				+	+	+				-				-	-	+	+		+	+	+	+	+
		TR	80								+	+	+	+										+		+	+	+	+	+
		TR	100								+	+	+	+										+		+		+	+	+
		TR	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: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

	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
1079	1-pentanol	amyl alcohol	TR	20	+	+	+	+	+	+	-	+	+	0		0	+	+	+	+	+	+	+	+	+	+	+
			TR	40	+	+	+	+	+	+	+	+	+	+	0		0	+	+	+	+	+	+	+	+	+	+
			TR	60	0				+	+	+		0							+	+	+	+	+	+	+	+
			TR	80					+	+	+									+	+	+	+	+	+	+	+
			TR	100					+	+	+									+	+		+		+	+	+
			TR	120					0	+	+										+		+		+	+	+
1080	amyl chloride	1-chloropentane	TR	20	-	0		+	+	+						-			+	+	+	+	+	+	+	+	+
			TR	40	-	-		+	+	+									+	+	+	+	+	+	+	+	+
			TR	60	-			+	+	+										+	+	+	+	+	+	+	+
			TR	80				+	+	+											+	+	+	+	+	+	+
			TR	100				+	+	+											+	+	+		+	+	+
1081	amyl laurate	dodecanoic acid pentyl ester	TR	20	-				+	+									+	+	+	+	+	+	+	+	+
			TR	40					+	+									+	+	+	+	+	+	+	+	+
			TR	60					+	+									+	+	+	+	+	+	+	+	+
			TR	80					+	+											+	+	+	+	+	+	+
			TR	100					+	+											+	+	+		+	+	+
			TR	120					+	+											+		+		+	+	+
1082	p-tert-amyl phenol	4-(2-methyl-2-butyl)phenol	TR	20	-			-	+	+																	
			TR	40	-				+	+																	
			TR	60	-				+	+																	
			TR	80					+	+																	
			TR	100					+	+																	
			TR	120					+	+																	

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1083		aniline		wä	GL	20	-	0	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
aminobenzene phenylamine C6H5NH2 C6H7N		wä	GL	40	GL	40	-	0	0	0	+	+	+	+	0	-	+	0	0	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60	GL	60	-				+	+					-			+	+	+	+	+	+	+	+	+	+	
		wä	GL	80	GL	80	-					+	+							+	+	+	+	+	+	+	+	+	+	
		wä	GL	100	GL	100	-					+	+									+	+			+	+	+	+	
			TR	20	TR	20	-	0	0	0	0	+	+	+	-	0	-	+	+	+	+	+	+	+	+	+	+	+	+	+
			TR	40	TR	40	-	0	0	0	0	+	+	0	0	0	0	0	+	+	+	+	+	+	+	+	+	+	+	
			TR	60	TR	60	-					+	+				-	-	+	+	+	+	+	+	+	+	+	+	+	
			TR	80	TR	80	-					+	+							+	+	+	+	+	+	+	+	+	+	
			TR	100	TR	100	-					+	+									+	+	+		+	+	+	+	
			TR	120	TR	120	-					+	+									+	+	+		+	+	+	+	+
1084		aniline sulfate			TR	20	-					+	+																	
(C6H5NH3)2SO4 C12H16N2O4S			TR	40							+	+																		
			TR	60							+	+																		
			TR	80							+	+																		
			TR	100							+	+																		
1085		aniline sulfite			TR	20	+					+	+																	
(C6H5NH3)2SO3 C12H16N2O3S			TR	40							+	+																		
			TR	60							+	+																		
			TR	80							+	+																		
			TR	100							+	+																		
1086		p-anisaldehyde			TR	20	-					+	+		-					+	+	+	+	+	+	+	+	+	+	
4-methoxybenzaldehyde CH3OC6H4CHO C8H8O2			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
1087	anisole		TR	20	-	0	0	0		+	+			0						-	+	+	+	+	+	+	+	+
			TR	40		-	-	-		+	+										+	+	+	+	+	+	+	+
			TR	60						+	+										+		+	+	+	+	+	+
			TR	80						+	+											+		+	+	+	+	+
			TR	100						+	+											+		+	+	+	+	+
			TR	120																		+		+		+	+	+
1088	anise oil			20		0				+	+																	
				40		0				+	+																	
				60		-				+	+																	
				80						+	+																	
				100						+	+																	
1089	sodium thiosulfate	wä	40% (GL)	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	40% (GL)	40	+	+	+	+	+	+	+			+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
		wä	40% (GL)	60	0	+	+	+	+	+	+	+			+		-	+	+	+	+	+	+	+	+	+	+	+
		wä	40% (GL)	80					+	+	+							+	+	+	+	+	+	+	+		+	
		wä	40% (GL)	100					+	+	+							+	+	+	+	+	+				+	
1090	benzaldehyde oxime	wä	2%	20	+	+	+	+		+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	+
		wä	2%	40			+	+		+	+			+							+	+	+	+	+	+	+	+
		wä	2%	60			+	+		+	+			+							+	+	+	+	+	+	+	+
		wä	2%	80						+	+										+	+	+	+	+	+	+	+
		wä	2%	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
1091 antimony(V) chloride SbCl5 Cl5Sb	antimony pentachloride	TR	20	-	0	0	-	+	+	+	-	0	-	-	-	-	-	+	+	-	-	-	-	-	-	+
		TR	40	-	-	-	+	+	+	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
		TR	60	-	-	-	+	+	+	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
		TR	70	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1092 antimony(III) chloride SbCl3 Cl3Sb	antimony trichloride	wä	90%	20	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-
		wä	90%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-
		wä	90%	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-
		wä	90%	80	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-
		wä	90%	100	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-
1093 hydroxysuccinic acid hydroxybutanedioic acid HO2CCH2CH(OH)CO2H C4H6O5	malic acid	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1094 H3AsO3 H3AsO3	arsenious acid	wä	VL	20	+	-	-	+	+	+	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	+
		wä	VL	40	-	-	-	-	+	+	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	+
		wä	VL	60	-	-	-	-	+	+	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	+
		wä	VL	80	-	-	-	-	+	+	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	+
		wä	VL	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
1095	arsenic acid	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		TR	20	+				+	+	+																	
			TR	40					+	+	+																	
			TR	60					+	+	+																	
			TR	80					+	+	+																	
			TR	100					+	+	+																	
			TR	120							+	+																
1097	arsenic trioxide		TR	20	+				+	+	+																	
			TR	40					+	+	+																	
			TR	60					+	+	+																	
			TR	80					+	+	+																	
			TR	100					+	+	+																	
			TR	120							+	+																
1098	L(+)-ascorbic acid	wä	24% (GL)	20	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			+
		wä	24% (GL)	40	+	+	+	+	+	+	+		+	+	+			+	+	+	+	+	+	+	+			+
		wä	24% (GL)	60	0	+	+	+	+	+	+		+	+	+				+	+	+	+	+	+	+			+
C6H8O6																												

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1099	ammonium dihydrogenphosphate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
NH4H2PO4 H6NO4P		wä	GL	40	+	+	+	+	+	+	+		+	+		0	+	+	+	+	+	+	+	+	+			
		wä	GL	60		+	+	+	+	+	+		+	+		-	+	+	+	+	+	+	+	+	+			
		wä	GL	80			+	+	+	+	+			+			+	+	+	+	+		+	+	+			
		wä	GL	100					+	+	+									+	+							
1100	barium carbonate	wä	GL	20	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+	+	+	+		+	+
BaCO3 CBaO3		wä	GL	40	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+	+	+	+		+	+
		wä	GL	60		+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+		+	+
		wä	GL	80					+	+	+					-	+	+	+	+	+		+	+	+			+
		wä	GL	100					+	+	+									+	+							+
1101	barium chloride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
BaCl2		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60	0	+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+	+			+
		wä	GL	80			+	+	+	+	+			+	+	-	+	+	+	+	+	+	+	+	+			+
		wä	GL	100					+	+	+									+	+	+						+
1102	barium cyanide	wä	GL	20	+	+	+	+		+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+
Ba(CN)2 C2BaN2		wä	GL	40	+	+	+	+		+	+		+	+		0	+	0	0	+	+	+	+	+	+		+	+
		wä	GL	60		+	+			+	+			+		-	+	-	-	+	+	+	+	+	+		+	+
		wä	GL	80						+	+									+	+	+						+
		wä	GL	100						+	+										+	+						+
1103	barium hydroxide	wä	GL	20	+	+	+	+	0	+	+		+	+		+	+	+	+	+	+	+	+	+	+			+
Ba(OH)2 H2BaO2		wä	GL	40	+	+	+	+	-	+	+		+	+			+	0	0	+	+	+	+	+	+			+
		wä	GL	60	0	+	+		-	+	+			+			+	0	0	+	+	+	0		0			+
		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: 2025-09-05

		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
1104	barium nitrate	wä	GL	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+
Ba(NO3)2 BaN2O6		wä	GL	40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+
		wä	GL	60		+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+		+	+
		wä	GL	80						+	+					0	+	+	+	+	+	+	+	+	+			+
		wä	GL	100						+	+									+	+	+						+
1105	barium peroxide	wä	GL	20	+	+	+	+		+	+	+		+		+	+	+	+	+	+		+	+	+		+	+
BaO2		wä	GL	40		+	+	+		+	+	+		+			+	+	+	+	+		+	+	+		+	+
		wä	GL	60		+	+	+		+	+			+			+	+	+	+	+						+	+
		wä	GL	80						+	+						+	+	+	+	+							
		wä	GL	100						+	+										+							
1106	barium sulfate	wä	GL	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+
baryta white		wä	GL	40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+
BaSO4 BaO4S		wä	GL	60	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+
		wä	GL	80			+	+	+	+	+		+	+		0	+	+	+	+	+	+	+	+	+			+
		wä	GL	100					+	+	+									+	+	+	+		+			+
1107	barium sulfide	wä	GL	20	+	+	+	+		+	+	+		+		+	+	+	+	+	+	+	+	+	+		+	+
BaS		wä	GL	40	+	+	+	+		+	+	+		+			+	+	+	+	+	+	+	+	+		+	+
		wä	GL	60	0	+	+	+		+	+			+			+	0	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: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

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
1110	benzal chloride	TR	20	-					+	+		-							+	+	+		+	+	+	+	+
		benzylidene chloride	TR	40	-					+	+									+	+		+	+	+	+	+
		a,a-dichlorotoluene	TR	60	-					+	+									+	+		+	+	+	+	+
		C6H5CHCl2	TR	80						+	+										+		+	+	+	+	+
		C7H6Cl2	TR	100						+	+										+		+		+	+	+
			TR	120						+	+										+		+		+	+	+
1111	benzaldehyde	wä	GL	-	+	+	+	+	+	+		-	+		0		+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	-	+	+	+	+	+	+			+		0		+	+	+	+	+	+	+	+	+	+
		wä	GL	60	-	+	0	0		+	+			0		0		+	+	+	+	+	+	+	+	+	+
		wä	GL	80						+	+									+	+	+	+	+	+	+	+
		wä	GL	100						+	+									+	+	+				+	+
1112	benzamide	wä	GL	20	+	+	+	+		+	+			+						+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+		+	+			+						+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+		+	+			+						+	+	+	+	+	+	+	+
		wä	GL	80						+	+									+	+	+	+	+	+	+	+
		wä	GL	100						+	+									+	+	+				+	+
1113	gasoline, free of lead and aromatics		20	+	+	0	0	+	+	+	+		0		+	-	+	+	+	+	+	+	+	+	+	+	
			40	+	+	0	0	+	+	+	+		0		+		+	+	+	+	+	+	+	+	+	+	
			60	+	0	-	-	+	+	+			-					+	+	+	+	+	+	+	+	+	
			80			-	-	+	+	+			-							+	+	+	+	+	+	+	
			100					+	+	+										+	+	+	+	+	+	+	

P

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

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Chemical Resistance

Release Date: 2025-09-05

1114		gasoline, Super				20	+	+	0	0	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+
P						40	+	+	0	0	+	+	+	0	0	+	+	+	+	+	+	+	+	+	+	+	+	+
						60			0	-	-	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+
						80						+	+	+			+	+	+	+	+	+	+	+	+	+	+	+
						100						+	+	+			+	+	+	+	+	+	+	+	+	+	+	+

1115		petrol-benzene mixture				20	-	0	0	0		+	+		-	0		+	-	+	+	+	+	+	+	+	+	+
P						40	-	-	-	-		+	+		-					+	+	+	+	+	+	+	+	+
						60	-	-	-	-		+	+		-					+	+	+	+	+	+	+	+	+
						80						+	+								+	+	+	+	+	+	+	+
						100						+	+									+	+		+	+	+	+
						120						+	+												+	+		

1116		benzoic acid		wä	GL	20	+	+	+	+		+	+	-	-	+		-	-	+	+	+	+	+	+	+	+	+
benzenecarboxylic acid phenylformic acid C6H5CO2H C7H6O2		wä	GL	40	+	+	+	+			+	+	-		+					+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+			+	+			+						+	+	+	+	+	+	+	+
		wä	GL	80				+	+			+	+			+					+	+	+	+	+	+	+	+
		wä	GL	100							+	+									0	0	+	+	+		+	+

1117		benzene			TR	20	-	0	0	0	+	+	+		-	0		0	-	+	+	+	+		+	+	+	+
C6H6			TR	40			-	-	-	-	+	+	+			-						+	+		+	+	+	+
			TR	60							0	+	+									+	+		+	+	+	+
			TR	80							-	+	+									+	+		+	+	+	+

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
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Chemical Resistance

Release Date: 2025-09-05

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		
1118 benzoic anhydride benzoic acid anhydride (C6H5CO)2O C14H10O3	TR	20	+	+	+	+	+	+	+	+	+	+	+															
		40			+	+		+	+			+																
		60			+	+		+	+			+																
		80						+	+																			
		100						+	+																			
1119 sodium benzoate benzoic acid sodium salt C6H5CO2Na C7H5NaO2	wä	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+	+	+	+		0	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		80					+	+	+					0	0	0	+	+	+	+	+	+	+				+	+
		100					0	+	+									+	+	+							+	+
1120 benzenesulfonic acid phenylsulfonic acid C6H5SO3H C6H6O3S	wä	10%	20	+	+	+	+	+	+			+		0				+	+	+	+	+	+				+	+
		10%	40	+	+	+	+	+	+			+		-				+	+	+	+	+	+				+	+
		10%	60	+	+	+	+		+	+		+						+	+	+	+	+	+					
		10%	80					+	+									+	+	+	+	+	+					
		10%	100					+	+									+										
	wä	40%	20	+	+	+	+	+	+			+		0				+	+	+	+	+	+				+	+
		40%	40	+	+	+	+	+	+			+		-				+	+	+	+	+	+				+	+
		40%	60	+	+	+	+		+	+		+						+	+	+	+	+	+					
		40%	80					+	+									+	+	+	+	+	+					
		40%	100					+	+									+										
	wä	GL	20		+	+	+	+	+			+		0				+	+	+	+	+	+				+	+
		GL	40		+	+	+	+	+			+		-				+	+	+	+	+	+				+	+
		GL	60		+	+	+		+	+		+						+	+	+	+	+	+					
		GL	80					+	+									+	+	+	+	+	+					
		GL	100					+	+									+										

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Chemical Resistance

Release Date: 2025-09-05

[illegible]

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Chemical Resistance

Release Date: 2025-09-05

		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
1125	succinic acid	wä	GL	20	+	+	+	+	+	+	+	-	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	
	butanedioic acid	wä	GL	40	+	+	+	+	+	+	+	-	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	
	ethane-1,2-dicarboxylic acid	wä	GL	60	+	+	+	+	+	+	+	-	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	
	HO2CCH2CH2CO2H	wä	GL	80	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	-	-	+	+	+	
	C4H6O4	wä	GL	100	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	+	+	-	-	+	+	+	
1126	beryllium chloride	wä	GL	20	+	+	+	+	-	+	+	-	-	+	+	-	+	+	+	+	+	+	+	+	+	-	-	+
		wä	GL	40	+	+	+	+	-	+	+	-	-	+	+	-	+	+	+	+	+	+	+	+	+	-	-	+
		wä	GL	60	-	+	+	+	-	+	+	-	-	+	-	-	-	-	-	+	+	+	+	+	+	-	-	+
		wä	GL	80	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	+
	BeCl2	wä	GL	100	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	-	-	-	-	+
1127	beryllium fluoride	wä	GL	20	+	+	+	+	-	+	+	-	-	+	-	-	-	-	-	+	+	+	+	+	+	-	-	+
		wä	GL	40	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	+
		wä	GL	60	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	+
		wä	GL	80	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	-	-	-	+	-	-	+
	BeF2	wä	GL	100	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	+
1128	beryllium sulfate	wä	GL	20	+	+	+	+	+	+	+	-	+	+	+	-	+	+	+	+	-	-	-	-	-	-	-	-
		wä	GL	40	+	+	+	+	+	+	+	-	+	+	+	-	+	+	+	+	-	-	-	-	-	-	-	-
		wä	GL	60	+	+	+	+	+	+	+	-	-	+	-	-	+	+	+	+	-	-	-	-	-	-	-	-
	BeSO4	wä	GL	80	-	-	+	+	+	+	+	-	-	+	-	-	+	+	+	+	-	-	-	-	-	-	-	-
	BeO4S	wä	GL	100	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
1129	beer			20	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+
				60	+	+	+	+	+	+	+	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+
				80	-	-	+	+	+	+	+	-	+	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+
				100	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

		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		
1130	beer colour			20	+	+	+	+	+	+	+				+										+	+	+	+	+	+
				40	+	+	+	+	+	+	+				+										+	+	+	+	+	+
				60	+	+	+	+	+	+	+				+										+	+	+	+	+	+
				80							+	+													+	+	+	+	+	+
				100							+	+													+	+	+	+	+	+
				120							+	+													+	+	+	+	+	+
1132	hydrogen cyanide	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						+	+													+	+	+		+		
1133	lead(II) acetate	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					+	+	+										+	+	+							

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

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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
1134	lead(II) hydrogenarsenate	wä	GL	20	+	+	+	+		+	+			+									+	+	+			
lead arsenate PbHAsO4 HAsPbO4		wä	GL	40						+	+												+	+	+			
		wä	GL	60						+	+												+	+	+			
		wä	GL	80						+	+																	
		wä	GL	100						+	+																	
1135	lead(II) carbonate	wä	GL	20	+	+	+	+		+	+			+		+	+	+	+	+	+	+	+	+	+	+		+
PbCO3 CO3Pb		wä	GL	40	+	+	+	+		+	+			+		+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+		+	+			+		+	+	+	+	+	+	+	+	+	+			+
		wä	GL	80						+	+					+	+	+	+	+	+	+	+					+
		wä	GL	100						+	+										+	+	+					+
1137	lead(II) chloride	wä	GL	20	+	+	+	+	+	+	+		+	+	+			+	+	+	+	+	+	+	+			+
PbCl2 Cl2Pb		wä	GL	40	+	+	+	+	+	+	+		+	+	+			+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+		+	+				+	+	+	+	+	+	+	+			+
		wä	GL	80			+	+	+	+	+		+	+				+	+	+	+	+	+	+	+			+
		wä	GL	100					+	+	+										+	+	+					+
1138	lead(II) nitrate	wä	GL	20	+	+	+	+	+	+	+		+	+				+	+	+	+	+	+	+	+			+
Pb(NO3)2 N2O6Pb		wä	GL	40	+	+	+	+	+	+	+		+	+				+	+	+	+	+	+	+	+			+
		wä	GL	60	+	+	+	+	+	+	+			+				+	+	+	+	+	+	+	+			+
		wä	GL	80					+	+	+									+	+	+	+	+	+			+
		wä	GL	100					+	+	+									+	+	+						+
1139	lead(II) sulfate	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
PbSO4 O4PbS		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: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

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	
1142	boric acid	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					+	+		+					+	+	+	+	+				+	+	+
1143	boron trichloride	gf	TR, GK	20	+				+	+								+									
		gf	TR, GK	40					+	+								+									
		gf	TR, GK	60					+	+									+								
		gf	TR, GK	80					+	+																	
		gf	TR, GK	100					+	+																	
1144	boron trifluoride	gf	TR, GK	20	+	+		+	+	+								+									
		gf	TR, GK	40	+	+		+	+	+								+									
		gf	TR, GK	60		-		+	+	+								+									
		gf	TR, GK	80				+	+	+																	
		gf	TR, GK	100				+	+	+																	
1145	1-bromo-2-chloroethane		TR	20	-	-	-	+	+	+			-			-		+	+		+	+	+	+	+	+	
			TR	40					+	+								+	+		+	+	+	+	+	+	
			TR	60					+	+								+	+		+	+	+	+	+	+	
			TR	80					+	+										+		+	+	+	+	+	+
			TR	100					+	+										+		+		+	+	+	+

CICH2CH2Br

C2H4BrCl

P

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UBBE

Chemical Resistance

Release Date: 2025-09-05

1147	bromoethane		TR	20	-	0	-	-	+	+	+		-	-	-	-	-	+	+	+	+	-	+	+	+	+	-	-
ethyl bromide	P		TR	40		0			+	+	+								+	+	+	+	+	+	+			+
CH3CH2Br																												
C2H5Br																												

1148	bromine	gf	TR, GK	20	-	-	-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	-	+	+	+	+	-	-
Br2	P	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	bromoform		TR	20	-	-	-	-	-	+	+			-														
tribromomethane			TR	40						+	+																	
			TR	60						+	+																	
			TR	80						+	+																	
	CHBr3			TR	100						+	+																
			TR	120						+	+																	

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Chemical Resistance

Release Date: 2025-09-05

		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
1151	hydrobromic acid	wä	10%	20	+	+	+	+	+	+	+	-	+	+		-	+	+	+	+	+	+	+	+	-	-	-	
		wä	10%	40	+	+	+	+	+	+	+		+	+	+		-	+	+	+	+	+	+	+				
		wä	10%	60	+	+	+		+	+	+			+	+			0	+	+	+	+	+	+				
		wä	10%	80					+	+	+										+	+	+	+	+			
		wä	10%	100					+	+	+														+			
		wä	48%	20	+	+	+	+	+	+	+	+	-	-	+		-	+	+	+	+	+	+	+	+	-	-	-
		wä	48%	40	+	+	+		+	+	+	+			+		-	+	+	+	+	+	+	+	+			
		wä	48%	60	+	+	0		+	+	+	+			0			0	+	+	+	+	+					
		wä	48%	80					+	+	+	+						-	0	0	+	+	+					
		wä	48%	100					+	+	+	+							-	-								
1152	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	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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Chemical Resistance

Release Date: 2025-09-05

		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	+	+	+	+	+	+	+	-	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	
		butyl alcohol	TR	40	+	+	+	+	+	+	+				+		+	+			+	+	+	+	+	+	+	+	
		CH3(CH2)3OH	TR	60	0	+	0	0	+	+	+				0		-	+			+	+	+	+	+	+	+	+	
		C4H10O	TR	80			0	0	+	+	+				0			0			+	+	+	+	+	+	+	+	
			TR	100					0	+	+										+	+	+	+		+	+	+	
1156	1-butanethiol		TR	20	+	0	+	+	+	+	+			+		+	+	+	+		+	+	+	+	+	+	+	+	
		1-butyl mercaptan	TR	40	+	0	0	0	+	+	+			0		+	+	+	+		+	+	+	+	+	+	+	+	
		CH3(CH2)3SH	TR	60	+	-			+	+	+						+	0	0	0		+	+	+	+	+	+		
		C4H10S	TR	80					+	+	+										+	+	+	+	+	+	+		
			TR	100						+	+										+	+	+		+	+	+		
1157	1-butene	gf	TR, GK	20	+	-	-	-	+	+	+			-		+	0	+	+							+	+	+	
		butylene	gf	TR, GK	40		-	-	-	+	+	+			-												+	+	+
		CH3CH2CH=CH2	gf	TR, GK	60			-	-	+	+	+			-												+	+	+
		C4H8	gf	TR, GK	80			-	-	+	+	+			-												+	+	+
			gf	TR, GK	100			-	-	+	+	+			-												+	+	+
1158	1-butyne	gf	TR, GK	20		+				+	+						-												
		CH3CH2CCH	gf	TR, GK	40		+				+	+																	
		C4H6	gf	TR, GK	60						+	+																	
			gf	TR, GK	80						+	+																	
			gf	TR, GK	100						+	+																	

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Chemical Resistance

Release Date: 2025-09-05

		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		
1159	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	+	+										+					+	+	+	+
1160	butyl acetate acetic acid butyl ester CH3CO2(CH2)3CH3 C6H12O2		TR	20	-	0	0	0	+	+	+	-	-	0		-	-	-	-	+	+		+	+	+	+	+	+	+	
			TR	40		-	-	-	+	+	+			-						+	+		+	+	+	+	+	+	+	
			TR	60						+	+										+	+		+	+	+	+	+	+	
			TR	80						+	+											+		+	+	+	+	+	+	
			TR	100						+	+											+		+		+	+	+	+	
1161	butylamine 1-aminobutane CH3(CH2)3NH2 C4H11N		TR	20					+	+	+	-				-		-	-	+	+	+	+	+	+	+	+	+		
			TR	40					0	+	+										+	+	+	+	+	+	+	+	+	
			TR	60					-	+	+										+	+	+	+	+	+	+	+	+	
			TR	80						+	+											+	+			+	+	+	+	
1162	butyl bromide 1-bromobutane CH3(CH2)3Br C4H9Br		TR	20	-	-	-	-	+	+	+	-	-	-	-	-	-			+	+	+	+	+	+	+	+	+		
			TR	40					+	+	+										+	+	+	+	+	+	+	+	+	
			TR	60					+	+	+										+	+	+	+	+	+	+	+	+	
			TR	80					+	+	+										+	+	+	+	+	+	+	+	+	
			TR	100					+	+	+											+		+		+	+	+	+	

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Chemical Resistance

Release Date: 2025-09-05

1163		butyl 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																										
1-chlorobutane		TR	20																												-																									
		TR	40																																																					
CH3(CH2)3Cl		TR	60																																																					
C4H9Cl		TR	80																																																					
P		TR	100																																																					
		TR	120									+	+																																											
1164		4-tert-butylphenol			TR	20	0	0	+	+	+	+	+			+		-	-	0	0									+																										
			TR	40	-						+	+	+																																											
			TR	60							+	+	+																																											
(CH3)3CC6H4OH			TR	80							+	+	+																																											
C10H14O			TR	100								+	+																																											
			TR	120								+	+																																											
1165		butyl phosphate			TR	20	-				-	+	+										+		+	+	+																													
phosphoric acid butyl ester			TR	40								+	+										+		+	+	+																													
			TR	60								+	+										+		+	+	+																													
C4H9OPO(OH)2			TR	80								+	+										+		+	+	+																													
C4H11O4P			TR	100								+	+										+		+		+																													
			TR	120								+	+										+		+		+																													
1166		cadmium acetate		wä	GL	20	+	+	+	+		+	+			+						+	+	+	+	+	+			+																										
		wä	GL	40	+	+	+	+	+			+	+			+						+	+	+	+	+	+			+																										
		wä	GL	60		+	+	+	+			+	+			+						+	+	+	+	+	+			+																										
(CH3CO2)2Cd		wä	GL	80								+	+									+	+	+	+	+	+			+																										
C4H6CdO4		wä	GL	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
1167	cadmium chloride		wä	GL	20	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
CdCl2			wä	GL	40	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			wä	GL	60	0	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+
			wä	GL	80					+	+	+				0	+	+	+	+	+	+	+	+	+	+	+	+
			wä	GL	100					+	+	+					0	+	+	+	+	+	+			+	+	+
	1168	cadmium cyanide		wä	GL	20	+	+	+	+	-	+	+			+			+			+	+	+	+	+		
Cd(CN)2 C2CdN2			wä	GL	40	+	+	+	+	-	+	+			+						+	+	+	+	+			
			wä	GL	60		+	+			+	+			+						+	+	+		+			
			wä	GL	80						+	+									+	+	+					
			wä	GL	100						+	+									+							
	1169	cadmium sulfate		wä	GL	20	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+		
CdSO4 CdO4S			wä	GL	40	+	+	+	+	+	+		+	+	+			+	+	+	+	+	+	+	+			+
			wä	GL	60	0	+	+	+	+	+		+	+							+	+	+	+	+	+		+
			wä	GL	80					+	+	+									+	+	+	+	+	+		+
			wä	GL	100						+	+									+	+	+					+
	1170	calcium acetate		wä	GL	20	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+		
(CH3CO2)2Ca C4H6CaO4			wä	GL	40	+	+	+	+	+	+		+	+			+			+	+	+	+	+	+			+
			wä	GL	60		+	+	+	+	+			+			+				+	+	+	+	+	+		+
			wä	GL	80					+	+	+									+	+	+	+	+	+		+
			wä	GL	100					+	+	+									+	+	+					+
	1171	calcium arsenate		wä	GL	20	+	+	+	+	+	+		+	+			+			+	+	+	+	+	+		
calcium othoarsenate Ca3(AsO4)2 As2Ca3O8			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: 2025-09-05

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
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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Chemical Resistance

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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	
1176	calcium chlorate	wä	GL	20	+	+	+	+	+	+	+			+						+	+	+	+	+	+				
		wä	GL	40	+	+	+	+	+	+	+	+			+					+	+	+	+	+	+				
		wä	GL	60	+	+	+	+	+	+	+	+			+					+	+	+	+	+	+				
		wä	GL	80					+	+	+	+								+	+	+							
		wä	GL	100						+	+	+																	
Ca(ClO3)2																													
CaCl2O6																													
1177	calcium chloride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+	
		wä	GL	60	0	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	
		wä	GL	80			+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+			+	
		wä	GL	100						+	+	+		+				0	+	+	+	+	+	+	+			+	
CaCl2																													
1178	calcium chromate	wä	GL	20	+					+	+										+	+	+	+	+	+			
		wä	GL	40							+	+									+	+	+	+	+	+			
		wä	GL	60							+	+									+	+	+	+	+	+			
		wä	GL	80							+	+									+	+	+	+	+	+			
		wä	GL	100							+	+									+	+	+	+		+			
chromatite																													
CaCrO4																													
1179	calcium fluoride	wä	GL	20	+	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+			+	+			+	+	+	+	+	+	+	+			+	
		wä	GL	60		+	+	+	+	+	+			+	+			+	+	+	+	+	+	+	+			+	
		wä	GL	80					+	+	+										+	+	+						
		wä	GL	100							+	+									+	+	+						
fluorspar																													
CaF2																													
1180	calcium hydrogencarbonate	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	60		+	+	+	+	+	+			+	+	+	0	0	+	+	+	+	+	+	+			+	
		wä	GL	80			+		+	+	+				+	+					+	+	+	+	+	+		+	
		wä	GL	100							+	+									+	+	+					+	
calcium bicarbonate																													
Ca(HCO3)2																													
C2H2CaO6																													

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Chemical Resistance

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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
1181	calcium hydrosulfide	wä	GL	20	+	+	+	+	+	+	+			+						+	+	+	+	+	+			+
		wä	GL	40		+	+	+	+	+	+	+			+						+	+	+	+	+			+
		wä	GL	60			+	+	+	+	+	+			+						+	+	+	+	+			+
		wä	GL	80						+	+	+									+	+	+	+	+			
		wä	GL	100						+	+	+									+	+	+					
Ca(SH)2																												
H2CaS2									+	+	+									+	+	+						
1182	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	+	+	+					+
lime milk																												
slaked lime																												
Ca(OH)2							+		-	+	+			+			+	0	0	+	+	+			+	+	+	+
H2CaO2									-	+	+							0	0	+	+	+						+
1183	calcium hypochlorite	wä	GL	20	+				+	+	+				-			+	+	+	+	-	+	+	+	-	-	+
		wä	GL	40	+				+	+	+							+	+	+	+		+	+	+			+
		wä	GL	60					0	+	+										+	+		+	+	+		+
Ca(OCI)2 (65%)																												
CaCl2O2 (65%)																												
1184	calcium nitrate	wä	50%	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+			+
		wä	50%	40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		0	+
		wä	50%	60		+	+	+	+	+	+			+	+			+	+	+	+	+	+	+	+			+
		wä	50%	80					+	+	+		+						+	+	+	+	+	+	+			+
		wä	50%	100					+	+	+										+	+	+					+
Ca(NO3)2																												
CaN2O6								+	+	+										+	+	+					+	
1185	calcium oxalate	wä	GL	20	+					+	+												+	+	+			
		wä	GL	40						+	+													+	+	+		
		wä	GL	60						+	+													+	+	+		
		wä	GL	80						+	+													+	+	+		
		wä	GL	100						+	+																	
oxalic acid calcium salt																												
CaC2O4									+	+													+	+	+			
C2CaO4									+	+																		

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Chemical Resistance

Release Date: 2025-09-05

		Condition	Concentration	T 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	
1186	calcium permanganate	wä	VL	20	+					+	+																		
		wä	VL	40						+	+																		
		wä	VL	60						+	+																		
		wä	VL	80						+	+																		
		wä	VL	100						+	+																		
		Ca(MnO4)2 CaMn2O8																											
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																											

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Chemical Resistance

Release Date: 2025-09-05

		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
1191	calcium sulfite	wä	GL	20	+	+	+	+	+	+	+			+				+	+	+	+	+	+	+	+			+
CaSO3 CaO3S		wä	GL	40	+	+	+	+	+	+	+			+				+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+				+				+	+	+	+	+	+	+			+
		wä	GL	80						+	+	+								+	+	+	+	+	+			+
		wä	GL	100							+	+									+	+	+					+
1192	calcium hydrogensulfite	wä	GL	20	+	+	+	+		+	+			+				+	+	+	+	+	+	+	+			+
calcium bisulfite Ca(HSO3)2 H2CaO6S2		wä	GL	40	+	+	+	+		+	+			+				+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+			+	+			+						+	+	+	+	+			+
		wä	GL	80							+	+									+	+	+	+	+			+
		wä	GL	100							+	+									+	+	+					+
1193	(+/-)-camphor		TR	20	-	-	0	0	+	+	+			0			-	+	+	+					+	+	+	
C10H16O			TR	40					+	+	+										+					+	+	+
			TR	60					+	+	+										+					+	+	+
			TR	80							+	+									+					+	+	+
			TR	100							+	+									+					+	+	+
1194	camphor oil			20	-	-	-	-	+	+	+			-		-	-	+	+	+	+	+	+	+	+	+	+	
				40					+	+	+										+	+	+	+	+	+	+	+
				60						+	+										+	+	+	+	+	+	+	+
				80							+	+									+	+	+	+	+	+	+	+
				100							+	+									+	+	+	+	+	+	+	+
1195	e-caprolactam		TR	20																			+	+	+			
hexahydro-2H-azepin-2-one			TR	40																				+	+	+		
			TR	60																				+	+	+		
			TR	80																								
C6H11NO																												

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Chemical Resistance

Release Date: 2025-09-05

		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	
1196	e-caprolactone		TR	20	-					+	+											+	+	+	+	+	+	+	
			TR	40							+	+										+	+	+	+	+	+	+	
			TR	60							+	+										+	+	+	+	+	+	+	
			TR	80							+	+										+	+	+	+	+	+	+	
			TR	100							+	+										+	+	+	+	+	+	+	
1197	carbazole		TR	20		+	+	+		+	+			+										+	+	+			
			TR	40		+	+	+		+	+				+									+	+	+			
			TR	60		+	+	+		+	+				+									+	+	+			
			TR	80							+	+																	
			TR	100							+	+																	
1199	carbon disulfide		TR	20	0	0	-	-	+	+	+	+	-	-		-	-	+	+	+	+	+	+	+	+	+	+	+	
			TR	40	-	-			+	+	+	0									+	+	+	+	+	+	+	+	
1200	Caro's acid	wä	VL	20	+	-	-	-	+	+	+			-	-	-	-			+	+		+	+	+				
		wä	VL	40						+	+									+	+		+	+	+				
		wä	VL	60							+	+									+	+		+	+	+			
		wä	VL	80							+	+										+		+	+	+			
		wä	VL	100							+	+									+								
1201	quinine	wä	GL	20	+	+	+	+		+	+			+										+	+	+			
		wä	GL	40		+	+	+			+	+			+									+	+	+			
		wä	GL	60		+	+	+			+	+			+									+	+	+			
		wä	GL	80							+	+																	
		wä	GL	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
1202	quinoline		TR	20	-	-	-	-	-	+	+												+	+	+			
	1-azanaphthalene		TR	40						+	+												+	+	+			
			TR	60						+	+												+	+	+			
			TR	80						+	+																	
	C9H7N		TR	100						+	+																	
1204	chloroacetaldehyde		TR	20	-					+	+									+								
	chloroethanal		TR	40						+	+									+								
			TR	60						+	+									+								
	ClCH2CHO		TR	80						+	+																	
	C2H3ClO																											
1205	chloroacetone		TR	20	-					+	+	-				-		0	0	+	+	+	+	+	+	+	+	+
	1-chloro-2-propanone		TR	40						+	+							0	0	+	+	+	+	+	+	+	+	+
	monochloroacetone		TR	60						+	+							0	0		+	+	+	+	+	+	+	+
	ClCH2COCH3		TR	80						+	+										+	+				+	+	+
	C3H5ClO		TR	100						+	+										+	+				+	+	+
1206	chloral hydrate		TR	20	-	+	0	0	-	+	+			0		-	0	0	0									
	trichloroacetaldehyde hydrate		TR	40		+	0	0		+	+			0		-	0	0	0									
			TR	60		+	-	-		+	+			-			0	0	0									
	CCl3CH(OH)2		TR	80						+	+																	
	C2H3Cl3O2		TR	100						+	+																	
1207	chloramine B	wä	VL	20	+	+	+	+		+	+			+		+	+	-	-	+	+	+	+	+	+	+	+	+
	N-chlorobenzenesulfonic acid amide sodium sal	wä	VL	40						+	+									+	+	+	+	+	+	+	+	+
		wä	VL	60						+	+									+	+	+	+	+	+	+	+	+
	C6H5SO2N(Cl)Na	wä	VL	80						+	+										+	+	+	+	+			+
	C6H5CINNaO2S	wä	VL	100						+	+										+	+						+

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Chemical Resistance

Release Date: 2025-09-05

		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	
1208	chlorobenzene		TR	20	-	0	0	0	+	+	+	-	-	0	-	-	-	-	-	+	+	+	+	+	+	+	+	+	
			TR	40	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
			TR	60	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		C6H5Cl	TR	80	-	-	-	-	0	+	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
		C6H5Cl	TR	100	-	-	-	-	0	+	+	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	
1209	sodium hypochlorite	wä	5%	20	+	0	0	0	+	+	+			0	-	-	+	+	+	+	+	+	-	+	+	+	-	-	+
		wä	5%	40	+	0	0	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	bromochloromethane		TR	20	-	-	-	-		+	+		-	-			-				+	+	+	+	+	+	+	+	
			TR	40						+	+											+	+	+	+	+	+	+	+
			TR	60						+	+											+	+	+	+	+	+	+	+
		CH2BrCl																											

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Chemical Resistance

Release Date: 2025-09-05

		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	
1211	chloroacetic acid monochloroacetic acid ClCH2CO2H C2H3ClO2	wä	33%	20	+	+	+	+	+	+	+			+		-	0	-	-	+	+	+	+	+	-	-	+		
		wä	33%	40	+	+	+	+	+	+	+			+	+					+	+	+	+	+			+		
		wä	33%	60	0	+	+		+	+	+			+								+	+		+			+	
		wä	33%	80					+	+	+																		
		wä	33%	100						+	+																		
		wä	50%	20	+	+	+	+	+	+	+	+			+		-	0	-	-	+	+	+	+	+	+	-	-	+
		wä	50%	40	+	+	+	+	0	+	+	+			+	+					+	+	+	+	+	+		+	
		wä	50%	60	0	+	+		-	+	+	+			+							+	+	+		+		+	
		wä	50%	80						+	+	+																	
		wä	50%	100						+	+	+																	
		wä	85%	20	+	+	+	+	+	+	+	+			+	+	-	0	-	-	+	+	+	+	+	+	-	-	+
		wä	85%	40	+	+	+	+	0	+	+	+			+	+						+	+	+	+	+		+	
		wä	85%	60	0	+	+		-	+	+	+			+	+						+	+	+		+		+	
		wä	85%	80						+	+	+																	
		wä	85%	100						+	+	+										+							
1212	chloroethanol ethylene chlorohydrin ClCH2CH2OH C2H5ClO		TR	20	-	+	0	0	+	+	+	-		0		-	0	-	-		+		+	+	+	+	+	+	
			TR	40	-	+			0	+	+										+		+	+	+				
			TR	60	-	+	0	0	0	+	+			0							+		+	+	+				
			TR	80					-	+	+										+								
			TR	100						+	+	+									+								

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Release Date: 2025-09-05

		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
1213	chlorine	gf, fe	TR, GK	20	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	chlorinated lime	wä	GL	20	+				+	+	+				-			+	+	+	+	-	+	+	+	-	-	+
		calcium chloride hypochlorite	GL	40	+				+	+	+								+	+	+	+		+	+	+		+
		bleaching lime	GL	60					0	+	+										+	+		+	+	+		+
		CaCl(OCl) + Ca(OH)2																				+	+					
		CaCl2O																										
1216	4-chloro-m-cresol		TR	20	-	-	-	-		+	+			-														
		4-chloro-3-methylphenol	TR	40							+	+																
		1-chloro-4-hydroxy-2-methylbenzene	TR	60							+	+																
		C1C6H3(CH3)OH	TR	80							+	+																
		C7H7ClO	TR	100							+	+																
1217	chloroform		TR	20	-	-	-	-	+	+	+	-	-	-	-	-	-	0	0	+	+	+	+	+	+	+	+	+
		trichloromethane	TR	40					+	+	+										+	+	+	+	+	+	+	+
			TR	60					+	+	+										+	+	+	+	+	+	+	+
		CHCl3																										

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Release Date: 2025-09-05

		Condition	Concentration	T 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
1218	chlorophenol (2-, 3- a. 4-)		TR	20	+					+	+																	
			TR	40						+	+																	
			TR	60						+	+																	
			TR	80						+	+																	
			TR	100						+	+																	
CIC6H4OH C6H5ClO																												
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						+	+										+							
CISO3H HCISO3																												
1221	chlorotoluene (2-, 3- a. 4-)		TR	20	-	-	-	-		+	+	-	-	-		-	-	-	-	+	+	+	+	+	+	+	+	+
			TR	40						+	+									+	+		+	+	+	+	+	+
			TR	60						+	+									+	+		+	+	+	+	+	+
			TR	80						+	+										+		+	+	+	+	+	+
			TR	100						+	+										+		+		+	+	+	+
CH3C6H4Cl C7H7Cl																												

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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
1222	chlorotrifluoroethylene	gf	TR, GK	20		-	-	-		+	+						-											
		gf	TR, GK	40						+	+																	
		gf	TR, GK	60						+	+																	
		gf	TR, GK	80						+	+																	
		gf	TR, GK	100						+	+																	
		trifluorovinyl chloride																										
		CICF=CF2																										
		C2CIF3																										
1224	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					+	+	+										+							
		Cl2																										
		P																										
1225	hydrogen chloride	gf	TR, GK	20	+	+	+	+	+	+	+			+		0	+	+	+	+								
		gf	TR, GK	40	+	+	+	+	+	+	+			+		-	+	+	+	+								
		gf	TR, GK	60	0	+	+	+	+	+	+			+			+	+	+	+								
		gf	TR, GK	80					+	+	+																	
		gf	TR, GK	100					+	+	+																	
		HCl																										
		P																										
1226	potassium chromium(III) sulfate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			+
		wä	GL	80					+	+	+						+	+	+	+	+	+	+	+	+			+
		wä	GL	100						+	+							+	+	+	+	+	+					+
		chromium(III) potassium sulfate																										
		chromium alum																										
		CrK(SO4)2							+	+	+						+	+	+	+	+	+	+	+	+			+
		CrKO8S2							+	+							+	+	+	+	+	+					+	
1227	chromium(III) chloride	wä	GL	20	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			+
		wä	GL	60	+	+	+	+	+	+	+			+				+	+	+	+	+	+	+	+			+
		wä	GL	80					+	+	+										+	+	+	+	+	+		+
		wä	GL	100						+	+	+									+	+	+					+
		CrCl3																										
		Cl3Cr							+	+	+									+	+	+					+	

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1228		chromium(III) fluoride		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																																																		
CrF3			GL		GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																																																		
																															GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																								
																																																									GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

1229		chromium(III) hydroxide		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																																																					
Cr(OH)3 H3CrO3			GL		GL	40		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																																																					
																															GL	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																										
																																																										GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

1230		chromium(III) nitrate		wä	GL	20	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+																																																								
Cr(NO3)3 CrN3O9			GL		GL	40	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+																																																								
																															GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																												
																																																											GL	80		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

1231		chromium(III) oxide			TR	20	+	+	+	+	+	+	+	-		+			+	+	+																																																																	
Cr2O3			TR		TR	40	+	+	+	+	+	+	+			+			+	+	+																																																																	
																																TR	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																												
																																																												TR	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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1232	chromic acid																															
CrO3 + H2O H2CrO4	P	wä	20%	20	+	+	+	+	+	+	+	+	-		+	-	-	0	+	+	+	+	+	+	+	-	-	-				
		wä	20%	40	+	+	0	0	+	+	+			0			0	+	+	+	+	+	+	+	+	+						
		wä	20%	60	0	0	-	-	+	+	+			-			-	+	+	+	+	+	+	+	+	+						
		wä	20%	80					+	+	+							+	+	+	+	+	+	+	+	-	+					
		wä	20%	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	+	+	+	-	-	0	-	-	0	+	+	+	+	+	+	+	+	+	+	-	-	-		
		wä	50%	40	+	0	-	-	+	+	+			-			0	+	+	+	+	+	+	+	+	+	+	+				
		wä	50%	60	0	-			+	+	+						-	+	+	+	+	+	+	+	+	+	+	+				
		wä	50%	80					+	+	+								+	+	+	+	+	+	+	+	+	-	+			
		wä	50%	100						+	+																					
		wä	60%	20	+	0	0	0	+	+	+	-	-	0	-	-	0	+	+	+	+	+	+	+	+	+	+	+	-	-	-	
		wä	60%	40	+	-	-	-	+	+	+			-			0	+	+	+	+	+	+	+	+	+	+	+				
		wä	60%	60					+	+	+						-	+	+	+	+	+	+	+	+	+	+	+	+			
		wä	60%	80						+	+										+	+	+	+	+	+	+	+	-	+		
		wä	60%	100						+	+																					

1233	chromosulfuric acid																														
K2CrO4/H2SO4/H2O = 250g/200g/1000g			20	+	-	-	-	+	+	+	-	-	-	-				+	+		+		+		+	-	-	-			
			40					+	+	+								+	+		+		+		+						
			60						+	+									+	+											
			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
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Chemical Resistance

Release Date: 2025-09-05

Chemical Resistance		Release Date: 2025-09-05																										
1234	chromosulfuric 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
K2CrO4/H2SO4/H2O = 340g/10g/1000g				20	+				+	+	+	-			-						+	+		+		-	-	
				40					+	+	+										+	+		+				
				60						+	+	+									+	+						
				80						+	+	+									+							
				100						+	+	+																
1235	chromosulfuric acid			20	+				+	+	+	-			-					+	+		+		+	-	-	
K2CrO4/H2SO4/H2O = 400g/10g/100g				40					+	+	+									+	+		+		+			
				60						+	+									+	+							
				80						+	+									+								
				100						+	+																	
1236	chromosulfuric acid			20	+				+	+	+				-					+	+		+		+	-	-	
K2CrO4/H2SO4/H2O = 400g/10g/1000g				40					+	+	+									+	+		+		+			
				60						+	+									+	+							
				80						+	+									+								
				100						+	+																	
1237	chromosulfuric acid			20	+	-	-	-	+	+	+	-	-	-	-	-	0	+	+	+	+		+		+	-	-	
K2CrO4/H2SO4/H2O = 500/150/350g				40	0				+	+	+						0	+	+	+	+		+		+			
				60					+	+	+								+	+	+	+						
				80					0	+	+										+							
				100						+	+																	

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Chemical Resistance

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

	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
1238 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					+	+	+										+	+							

1239 crotonaldehyde trans-2-butenal CH3CH=CHCHO C4H6O		TR	20	-	+	+	+	+	+	+	-		+		+	+	+	+	+	+		+	+	+	+	+	+	+
		TR	40		+			+	+	+									+	+		+	+	+	+	+	+	
		TR	60		0			0	+	+										+		+	+	+	+	+	+	
		TR	80						+	+										+		+	+	+	+	+	+	
		TR	100						+	+										+		+		+	+	+	+	

1241 crotonic acid trans-2-butenic acid CH3CH=CHCO2H C4H6O2		TR	20	+	-	-	-		+	+			-							+		+	+	+			
		TR	40						+	+										+		+	+	+			
		TR	60						+	+										+		+		+			
		TR	80						+	+										+		+		+			
		TR	100						+	+										+							

1242 cumene 2-phenylpropane isopropylbenzene C6H5CH(CH3)2 C9H12		TR	20	-	-	-	-	+	+	+		-	-		-	-	+	+	+	+		+	+	+	+	+	+
		TR	40					+	+	+									+	+		+	+	+	+	+	+
		TR	60					+	+	+									+	+		+	+	+	+	+	+
		TR	80						+	+										+		+	+	+	+	+	+
		TR	100						+	+										+		+	+	+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

		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
1243	cyanamide		TR	20	-	-	-	-	-	+	+			-							+	+		+	+	+	+	+
			TR	40	-	-	-	-	-	+	+										+	+		+	+	+	+	+
			TR	60	-	-	-	-	-	+	+																	
			TR	80	-	-	-	-	-	+	+																	
			TR	100	-	-	-	-	-	+	+																	
H2NCN																												
CH2N2																												
1244	cyanoacetic acid ethyl ester		TR	20	-	-	-	-	-	+	+			-							+	+		+	+	+	+	+
			TR	40	-	-	-	-	-	+	+										+	+		+	+	+	+	+
			TR	60	-	-	-	-	-	+	+										+	+		+	+	+	+	+
			TR	80	-	-	-	-	-	+	+											+		+	+	+	+	+
			TR	100	-	-	-	-	-	+	+											+		+		+	+	+
ethyl cyanoacetate																												
NCCH2CO2C2H5																												
C5H7NO2																												
1246	cyclohexane		TR	20	-					+	+	+	0	+			+	-	+	+	+	+		+	+	+	+	+
			TR	40						+	+	+	0								+	+		+	+	+	+	+
			TR	60						+	+	+									+	+		+	+	+	+	+
			TR	80						+	+	+									+	+		+	+	+	+	+
hexahydrobenzene																												
C6H12																												
P																												
1247	cyclohexanol		TR	20	+	+	+	+	+	+	+			+		-	-			+	+		+	+	+	+	+	
			TR	40	+	+	+	+	+	+	+			+						+	+		+	+	+	+	+	
			TR	60	0	+	0	0	0	0	+	+			0					+	+		+	+	+	+	+	
			TR	80						0	+	+									+	+		+	+	+	+	+
			TR	100						-	+	+									+	+		+		+	+	+
C6H11OH																												
C6H12O																												
1248	cyclohexanone		TR	20	-	+	+	+	+	+	+	-	-	+		-	-	-	-	+	+		+	+	+	+	+	
			TR	40		0	0	0	0	0	+	+			0					+	+		+	+	+	+	+	
			TR	60		0	0	0	0	0	+	+			0					+	+		+	+	+	+	+	
			TR	80						-	+	+								+	+		+	+	+	+	+	
			TR	100							+	+								+	+		+		+	+	+	+
C6H10O																			+	+		+		+	+	+		

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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	
1249	cyclohexene		TR	20	-	-	-	-	-	+	+			-		-	-	-	+	+	+	+		+	+	+	+	+	
			TR	40							+	+									+	+		+	+	+	+	+	
			TR	60							+	+									+	+		+	+	+	+	+	
			TR	80							+	+										+		+	+	+	+	+	
1,2,3,4-tetrahydrobenzene																													
C6H10																													
P																													
1250	cyclohexylamine		TR	20	-	-	-	-		+	+			-			-	-	-	+	+			+	+	+	+	+	+
			TR	40							+	+									+	+		+	+	+	+	+	
			TR	60							+	+									+	+		+	+	+	+	+	
			TR	80							+	+										+				+	+	+	
			TR	100							+	+										+				+	+	+	
aminocyclohexane																													
cyclohexanamine																													
C6H11NH2																													
C6H13N																													
1252	cymene (o-, m- a. p-)		TR	20	-	-	-	-		+	+			-										+	+	+			
			TR	40							+	+												+	+	+			
			TR	60							+	+												+	+	+			
			TR	80							+	+												+	+	+			
			TR	100							+	+												+	+	+			
Isopropylmethylbenzene (o-, m- a. p-)																													
CH3C6H4CH(CH3)2																													
C10H14																													
1253	L-cysteine		TR	20			+	+		+	+			+															
			TR	40							+	+																	
			TR	60							+	+																	
			TR	80							+	+																	
			TR	100							+	+																	
(R)-2-amino-3-mercaptopropionic acid																													
cys																													
HSCH2CH(NH2)CO2H																													
C3H7NO2S																													
1254	L-cystine		TR	20			+	+		+	+			+															
			TR	40							+	+																	
			TR	60							+	+																	
			TR	80							+	+																	
			TR	100							+	+																	
[-SCH2CH(NH2)CO2H]2																													
C6H12N2O4S2																													

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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
1255	DDT		TR	20	+	+	+	+		+	+			+														
1,1-bis(4-chlorophenyl)-2,2,2-trichloroethane dichlorodiphenyltrichloroethane (C1C6H4)2CHCCl3 C14H9Cl5			TR	40		+	+	+		+	+			+														
			TR	60		+	+	+		+	+																	
			TR	80							+	+																
			TR	100							+	+																
1256	decaline		TR	20	+	+	-	-		+	+			-		-	-	+	+	+	+		+	+	+	+	+	+
decahydronaphthalene C10H18			TR	40	+	0				+	+						0	0	+	+	+	+		+	+	+	+	+
			TR	60	+	0					+	+							-	-	+	+		+	+	+	+	+
			TR	80							+	+									+	+		+	+	+	+	+
			TR	100							+	+										+		+		+	+	+
			TR	120							+	+										+		+		+	+	+
1257	dextran	wä	VL	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	
(C6H10O5)x C6H10O5		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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		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
1258	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	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	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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		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	
1261	dibutyl phthalate		TR	20	-	+	+	+	+	+	+			+			-	0	0	+	+			+	+	+	+	+	
			TR	40	-	0	0	0	0	+	+			0						+	+			+	+	+	+	+	
			TR	60	-	0	0	0	0	+	+				0						+	+			+	+	+	+	+
			TR	80			-	-	-	+	+				-							+		+	+	+	+	+	+
			TR	100					-	+	+											+		+		+	+	+	+
			TR	120					-	+	+											+		+		+	+	+	+
1262	dichlorobenzene (o-, m- a. p-)		TR	20	-	-	-	-	+	+	+		-	-		-	-	+	+	+	+		+	+	+	+	+	+	
			TR	40					+	+	+										+	+		+	+	+	+	+	
			TR	60					+	+	+										+	+		+	+	+	+	+	
			TR	80					0	+	+										+	+		+	+	+	+	+	
			TR	100						+	+										+	+		+		+	+	+	
			TR	120						+	+											+		+		+	+	+	
1263	dichloroacetic acid	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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Chemical Resistance

Release Date: 2025-09-05

		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	
1269	1,2-dichlorotetrafluoroethane	gf	TR, GK	20	+	0	-	-	+	+	+	+	+	-															
Frigen 114 CICF2CF2CI C2CI2F4		gf	TR, GK	40	0				+	+	+																		
		gf	TR, GK	60						+	+	+																	
		gf	TR, GK	80						+	+	+																	
		gf	TR, GK	100						+	+	+																	
1270	Diesel fuels			20	+	+	+	+	+	+	+	+	+	+		+	-	+	+	+	+		+	+	+	+	+	+	
				40	+	+	0	0	+	+	+		+	0		+		+	+	+	+		+	+	+	+	+	+	
				60	0	0	-	-	+	+	+		+	-							+	+		+	+	+	+	+	
				80					+	+	+										+	+		+	+	+	+	+	
				100					+	+	+										+	+		+	+	+	+	+	
				120					+	+	+											+	+		+		+	+	
1271	diethanolamine		TR	20		+	+	+	-	+	+			+				-	-	+	+		+	+	+	+	+		
2,2'-iminodiethanol bis(2-hydroxyethyl)amine (HOCH2CH2)2NH C4H11NO2			TR	40						+	+									+	+		+	+	+	+	+		
			TR	60							+	+									+	+					+	+	
			TR	80							+	+										+					+	+	
			TR	100							+	+									+						+	+	
1272	diethylamine		TR	20	0	+	+	+	0	+	+			+		-	0	-	-	+	+		+	+	+	+	+		
(C2H5)2NH C4H11N P			TR	40	0	0			-	+	+									+	+		+	+	+	+	+		
			TR	60		0					+	+									+	+		+	+	+	+	+	

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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
1273	diethylene glycol		TR	20	+	+	+	+	+	+	+	-		+		+	+	+	+	+	+		+	+	+	+	+	+
			TR	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+	+	+	+
			TR	60	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+	+	+	+
			TR	80					+	+	+					-	+	+	+	+	+		+	+	+	+	+	+
			TR	100					+	+	+						+	+	+	+	+		+		+	+	+	+
1274	diethyl ether		TR	20	-	0	0	0	+	+	+	-		0		-	-	-	-	+	+	+	+	+	+	+	+	+
			TR	30		-	0	0	+	+	+			0						+	+	+	+	+	+	+	+	+
1275	diethyl ketone		TR	20	0	+	0	0		+	+	-		0				-	-	+	+		+	+	+	+	+	+
			TR	40						+	+									+	+		+	+	+	+	+	+
			TR	60						+	+									+	+		+	+	+	+	+	+
			TR	80						+	+									+			+	+	+	+	+	+
			TR	100						+	+									+			+		+	+	+	+
1276	diglycolic acid	wä	30%	20	+	+	+	+	+	+	+	-	+	+						+	+	+	+	+	+	+	+	+
		wä	30%	40	+	+	+	+		+	+	-		+						+	+	+	+	+	+	+	+	+
		wä	30%	60	0	+	+	+		+	+			+						+	+							+
		wä	30%	80						+	+									+	+							+
		wä	30%	100						+	+									+	+							+
1277	diisobutyl ketone		TR	20	+	+	+	+	+	+	+	-		+		-	0	-	-	+	+		+	+	+	+	+	+
			TR	40		-	-	-	+	+	+			-						+	+		+	+	+	+	+	+
			TR	60		-	-	-	0	+	+			-						+	+		+	+	+	+	+	+
			TR	80						+	+									+			+	+	+	+	+	+
			TR	100						+	+									+			+		+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

Chemical Resistance			Material																							
Release Date: 2025-09-05																										
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	-	-	+	+	+	-	-	-	-	-	-	-	+	+	-	+	+	+	+	+	+
isopropyl ether (CH3)2CHOCH(CH3)2 C6H14O P		TR	40	-	0	-	-	+	+	+	-	-	-	-	-	-	-	+	+	-	+	+	+	+	+	+
		TR	60	-	-	-	-	+	+	+	-	-	-	-	-	-	-	+	+	-	+	+	+	+	+	+
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1279	dimethylamine	wä	40%	20	-	+	+	+	0	+	+	-	+	-	0	-	-	+	+	-	+	+	+	-	-	-
(CH3)2NH C2H7N P		wä	40%	40	-	0	-	-	-	-	-	-	-	-	-	-	-	+	+	-	+	+	+	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1280	N,N-dimethylaniline		TR	20	-	-	-	+	+	+	-	-	-	-	-	-	-	+	+	-	+	+	+	+	+	+
C6H5N(CH3)2 C8H11N		TR	40	-	-	-	-	+	+	+	-	-	-	-	-	-	-	+	+	-	+	+	+	+	+	+
		TR	60	-	-	-	-	0	+	+	-	-	-	-	-	-	-	+	+	-	+	+	+	+	+	+
		TR	80	-	-	-	-	-	+	+	-	-	-	-	-	-	-	+	+	-	+	+	+	+	+	+
		TR	100	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	+
		TR	120	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+	+
1282	dimethylformamide		TR	20	-	+	+	+	-	+	+	-	+	-	0	-	-	+	+	-	+	+	+	+	+	+
N,N-dimethylformamide DMF HCON(CH3)2 C3H7NO		TR	40	-	+	+	+	-	+	+	-	+	-	-	-	-	+	+	-	+	+	+	+	+	+	+
		TR	60	-	0	+	+	-	+	+	-	+	-	-	-	-	+	+	-	+	+	+	+	+	+	+
		TR	80	-	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	+	+	-	-	+	+	+
		TR	100	-	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	+	+	-	-	+	+	+
		TR	120	-	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	+	+	-	-	+	+	+

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Release Date: 2025-09-05

1283		1,1-dimethylhydrazine		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
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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: 2025-09-05

Chemical Resistance		Release Date: 2025-09-05																											
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			
1287	diphenyl	TR	20	-	+	0	0	-	+	+		0																	
		biphenyl	TR	40		+	0	0		+	+		0																
		dibenzene	TR	60		+	0	0		+	+		0																
		C6H5-C6H5	TR	80						+	+																		
		C12H10	TR	100						+	+																		
1288	diphenylamine	TR	20	-	-	-	-	-	+	+		-																	
		N-phenylaniline	TR	40						+	+																		
			TR	60						+	+																		
		(C6H5)2NH	TR	80						+	+																		
		C12H11N	TR	100						+	+																		
1289	diphenyl ether	TR	20	-	-	-	-	-	+	+		-	-			-		+	+		+	+	+	+	+	+	+		
		diphenyl oxide	TR	40						+	+								+	+		+	+	+	+	+	+		
		phenyl ether	TR	60						+	+								+	+		+	+	+	+	+	+		
		(C6H5)2O	TR	80						+	+									+		+	+	+	+	+	+		
		C12H10O	TR	100						+	+									+		+		+	+	+	+		
			TR	120						+	+									+		+		+	+	+	+		
1290	benzophenone	TR	20						+	+								+	+		+	+	+						
		diphenyl ketone	TR	40						+	+								+	+		+	+	+					
			TR	60						+	+									+		+	+	+					
		(C6H5)2CO	TR	80						+	+									+		+	+	+					
		C13H10O	TR	100						+	+									+		+		+					

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Chemical Resistance

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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
1295	iron(III) chloride sulfate	wä	40%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
FeClSO4 ClFeO4S		wä	40%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	40%	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	40%	80			+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	40%	100						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1296	iron(II) chloride	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
FeCl2 Cl2Fe		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	iron(II) hydroxide	wä	GL	20		+	+	+					+	+			+	+	+	+	+	+	+	+	+	+	+	
Fe(OH)2 H2FeO2		wä	GL	40		+	+	+					+	+			+	+	+	+	+	+	+	+	+	+	+	
		wä	GL	60		+	+	+					+	+			+			+	+		+	+	+	+	+	
		wä	GL	80			+	+						+				+		+	+						+	
		wä	GL	100																+	+						+	

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1298		iron(III) chloride	wä	10%	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	
ferric chloride FeCl3			wä	10%	40	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+			+	+	
			wä	10%	60	0	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+			+	+
			wä	10%	80			+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+			+	+
			wä	10%	100					+	+	+	+								+	+	+	+	+	+			+	+
			wä	48% (GL)	20	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	-	-	+	+
			wä	48% (GL)	40	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+			+	+
			wä	48% (GL)	60		+	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+			+	+
			wä	48% (GL)	80			+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+			+	+
			wä	48% (GL)	100					+	+	+	+						0	+	+	+	+	+	+	+			+	+

1299		iron(III) nitrate	wä	GL	20	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+				+
Fe(NO3)3 FeN3O9			wä	GL	40	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+				+
wä	GL	60		+	+	+	+	+	+			+			+	+	+	+	+	+	+	+				+		
wä	GL	80					+	+	+									+	+		+	+				+		
wä	GL	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
1300 iron(III) sulfate ferric sulfate Fe ₂ (SO ₄) ₃ Fe ₂ O ₁₂ S ₃	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		60	0	+	+	+	+	+	+						+	+	+	+	+	+	+	+	+	+	+	+
		80			+	+	+	+	+						+	+	+	+	+		+	+	+	+	+	+
		100					+	+	+									+	+		+		+	+	+	+
		20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		60	0	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			+
		80			+	+	+	+	+			+			+	+	+	+	+		+	+	+			+
		100					+	+	+									+	+		+		+			+
		20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		60	0	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			+
		80			+	+	+	+	+			+			+	+	+	+	+		+	+	+			+
		100					+	+	+									+	+		+		+			+
1301 iron(II) nitrate Fe(NO ₃) ₂ FeN ₂ O ₆	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		80			+	+	+	+	+			+	+	0	+	+	+	+	+		+	+	+			+
		100					+	+	+									+	+							+
1302 iron(II) sulfate FeSO ₄ FeO ₄ S	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		80			+	+	+	+	+			+	+	0	+	+	+	+	+		+	+	+			+
		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: 2025-09-05

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
1303	iron oxalate	wä	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	100					+	+									+	+		
1307	epichlorohydrin	TR	20	-	+	+	+	-	+	+		+			-	-	-	+	+	+	+
		TR	40	-	+	+	+	-	+	+		+						+	+	+	+
		TR	60		+	+	+	-	+	+		+						+	+	+	+
		TR	80					-	+	+								+	+	+	+
		TR	100					-	+	+								+	+	+	+
		TR	120					-	+	+											
1308	natural gas	gf	GK	20	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+
		gf	GK	40				+	+	+	+					+	+	+			+
		gf	GK	60				+	+	+								+			+
		gf	GK	80				+	+	+								+			+
		gf	GK	100				+	+	+								+			+
1309	petroleum		20	0	+	+	+	+	+	+	+	+	+		-	+	+	+	+	+	+
			40		0	0	0	+	+	+	+	0						+	+	+	+
			60		-	-	-	+	+	+		-						+	+	+	+
			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: 2025-09-05

1310	acetic acid																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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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: 2025-09-05

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

1311 CH3CH3 C2H6	ethane		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: 2025-09-05

		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	
1312	ethanol	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
ethyl alcohol CH3CH2OH C2H6O		wä	10%	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
		wä	10%	60	+	+	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+	+	+	+	
		wä	10%	80						+	+	+						+		+	+	+	+	+	+	+	+	+	
		wä	50%	20	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	50%	40	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	50%	60	0	+	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+	+	+	+	+
		wä	50%	80						+	+	+						+			+	+	+	+	+	+	+	+	+
			TR	20	+	+	+	+	+	+	+	+	-	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+
			TR	40	+	+	+	+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+	+	+	+
			TR	60	0	+	+	+	+	+	+	+	+			+		-				+	+	+	+	+	+	+	+
			TR	80						+	+	+	+									+	+	+	+	+	+	+	+
		1313	ethanolamine		TR	20	-	+	+	+	-	+	+	-	+	+		+	+	-	-	+	+	+	+	+	+	+	+
2-aminoethanol colamine NH2CH2CH2OH C2H7NO			TR	40		+	+	+		+	+		+	+		+	+			+	+	+	+	+	+	+	+	+	
			TR	60		+	+	+		+	+			+	+		0	+			+	+				+			+
			TR	80			+	+		+	+			+	+			+			+					+			+
			TR	100						+	+										+								+
1314	ethene	gf	TR, GK	20	+	+			+	+	+						-												
ethylene CH2=CH2 C2H4		gf	TR, GK	40		+			+	+	+																		
		gf	TR, GK	60		0				+	+	+																	
		gf	TR, GK	80						+	+	+																	
		gf	TR, GK	100						+	+	+																	

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

Release Date: 2025-09-05

		Condition	Concentration	T 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	
1316	2-ethyl-1-hexanol		TR	20	+	+	+	+		+	+			+			-				+	+		+	+	+	+	+	
			TR	40		+					+	+									+	+		+	+	+	+	+	
			TR	60		0					+	+									+	+		+	+	+	+	+	
			TR	80							+	+									+	+		+	+	+	+	+	
			TR	100							+	+										+		+		+	+	+	
			TR	120							+	+										+		+		+	+	+	
1317	ethyl acetate		TR	20	-	+	+	+	-	+	+	-	-	+	-	-	-	-	-	+	+			+	+	+	+	+	+
			TR	40		0	0	0			+	+			0						+	+		+	+	+	+	+	+
			TR	60		-	-	-			+	+			-						+	+		+	+	+	+	+	+
			TR	80							+	+										+		+	+	+	+	+	+
1318	ethyl acrylate		TR	20	-					+	+						-	0	-	-		+		+	+	+			+
			TR	40	-						+	+										+		+	+	+			
			TR	60	-				-		+	+										+		+	+	+			
			TR	80					-		+	+										+		+	+	+			
			TR	100							+	+										+		+		+			
1319	ethylbenzene		TR	20	-	0	0	0	+	+	+		-	0		-	-	+	+	+	+	+	+	+	+	+	+	+	
			TR	40		-	-	-			+	+			-						+	+	+	+	+	+	+	+	+
			TR	60		-					+	+									+	+		+	+	+	+	+	+
			TR	80							+	+									+	+		+	+	+	+	+	+
			TR	100							+	+										+		+	+	+	+	+	+
			TR	120							+	+										+		+		+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

		Condition	Concentration	T 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	
1320	ethyl chloride	gf	TR, GK	20	-	0	0	0	+	+	+			0		-	-	0	0										
chloroethane CH3CH2Cl C2H5Cl		gf	TR, GK	40		-	0	0	+	+	+			0				0	0										
		gf	TR, GK	60					+	+	+								0	0									
		gf	TR, GK	80					+	+	+																		
		gf	TR, GK	100					+	+	+																		
1321	ethylene bromide		TR	20	-	0	-	-	+	+	+			-		-	-	0	0	+	+		+	+	+	+	+	+	
1,2-dibromoethane BrCH2CH2Br C2H4Br2 P			TR	40		-			+	+	+									+	+		+	+	+	+	+	+	
			TR	60					+	+	+										+	+		+	+	+	+	+	+
			TR	80					+	+	+										+	+		+	+	+	+	+	+
			TR	100					+	+	+											+		+		+	+	+	+
			TR	120							+	+										+		+		+	+	+	+
1322	ethylenediamine		TR	20	0	+	+	+		+	+	-		+		-	+	-	-	+	+		+	+	+	+	+	+	
ethane-1,2-diamine 1,2-diaminoethane H2NCH2CH2NH2 C2H8N2			TR	40	-	+	+	+		+	+			+						+	+		+	+	+	+	+	+	
			TR	60	-	+	+	+		+	+				+						+	+					+	+	+
			TR	80						+	+											+					+	+	+
			TR	100						+	+											+					+	+	+
1323	ethylenediaminetetraacetic acid	wä	0,05% (GL)	20	+	+	+	+	+	+	+			+			+	+	+	+	+								
EDTA Titriplex® II (HO2CCH2)2NCH2CH2N(CH2CO2H)2 C10H16N2O8		wä	0,05% (GL)	40	+	+	+	+	+	+	+			+			+	+	+	+	+								
		wä	0,05% (GL)	60		+	+	+	+	+	+	+			+			+	+	+	+	+							
		wä	0,05% (GL)	80						+	+	+						+	+	+	+	+							
		wä	0,05% (GL)	100						+	+	+									+	+							

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Chemical Resistance

Release Date: 2025-09-05

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

Release Date: 2025-09-05

		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
1329	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						+	+	+									+	+				+	+	+
1330	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						+	+	+								+	+	+				+	+	+
1331	fatty alcohols		TR	20	+	+	+	+	+	+	+			+		0	-	+	+	+	+		+	+	+	+	+	+
			TR	40	+	+	+	+	+	+	+			+		0		+	+	+	+		+	+	+	+	+	+
			TR	60	0	+	0	0	+	+	+			0					+	+	+	+		+	+	+	+	+
			TR	80						+	+	+									+	+		+	+	+	+	+
			TR	100						+	+	+									+	+					+	+

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Chemical Resistance

Release Date: 2025-09-05

		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
1332	fatty alcohol sulfates alkyl sulfates ROSO3X	wä	10%	20	+	+	+	+	+	+	+			+				+	+	+	+	+	+	+	+	+	+	+
		wä	10%	40	+	+	+	+	+	+	+				+				+	+	+	+	+	+	+	+	+	+
		wä	10%	60	0	+	0	0	+	+	+				0				+	+	+	+		+	+	+	+	+
		wä	10%	80					+	+	+									+	+	+		+	+	+	+	+
		wä	10%	100					+	+	+										+	+				+	+	+
1333	triglyceride	fl	H	20	+	+	+	+	+	+	+		+	+		0	-	+	+	+	+	+	+	+	+	+	+	+
		fl	H	40	+	+	+	+	+	+	+		+	+					+	+	+	+	+	+	+	+	+	+
		fl	H	60	0				+	+	+									+	+			+	+	+	+	+
		fl	H	80					+	+	+									+	+			+	+	+	+	+
		fl	H	100					+	+	+									+	+			+		+	+	+
1335	fatty acids > C6 carboxylic acids > C6 RCO2H		TR	20					+	+	+					0	-	+	+	+	+	+	+	+	+	+	+	+
			TR	40					+	+	+									+	+	+	+	+	+	+	+	+
			TR	60					+	+	+										+	+		+		+	+	+
			TR	80					+	+	+										+	+		+		+	+	+
			TR	100						+	+										+	+		+		+	+	+
1336	fluorine F2 P	gf	TR, GK	20	-	-	-	-	-			-	-	-	-	-	-	0	0	0								
		gf	TR, GK	40																								
		gf	TR, GK	60																								
		gf	TR, GK	80																								
		gf	TR, GK	100																								
1337	fluoroboric acid tetrafluoroboric acid hydrogen tetrafluoroborate HBF4	wä	50%	20					+	+	+					-				+	+							
		wä	50%	40					+	+	+										+	+						
		wä	50%	60						+	+										+	+						
		wä	50%	80						+	+																	
		wä	50%	100						+	+																	

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

Release Date: 2025-09-05

1338	hexafluorosilicic acid	wä	10%	20	+	+	+		+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	+	+
fluorosilicic acid		wä	10%	40	+	+	+		+	+	+			+			+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	60		+	+		+	+	+			+			+	+	+	+	+								
		wä	10%	80					+	+	+										+								
H2SiF6		wä	10%	80					+	+	+									+									
H2F6Si		wä	10%	100					+	+	+									+									
		wä	30%	20	+	+	+		+	+	+			+		-	+	+	+	+	+	+	+						+
		wä	30%	40	+	+	+		+	+	+			+			+	+	+	+	+	+	+						+
		wä	30%	60		+	+		+	+	+			+			+	0	+	+	+								
		wä	30%	80					+	+	+									+									
		wä	30%	100					+	+	+									+									
		wä	35%	20	+	+	+		+	+	+			+		-	+	+	+	+	+	+	+						+
		wä	35%	40	+	+	+		+	+	+			+			+	+	+	+	+	+	+						+
		wä	35%	60		+	+		+	+	+			+			+	0	+	+	+								
		wä	40%	20	+	+	+		+	+	+			+		-	+	+	+	+	+	+	+						+
		wä	40%	40	+	+	+		+	+	+			+						+	+	+	+						+
		wä	40%	60		+	+		+	+	+			+						+	+								

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Chemical Resistance

Release Date: 2025-09-05

1339	hydrofluoric acid																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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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: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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
1340	formaldehyde	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	+	+	+	+	+	+	+			+		0				+	+	+	+	+	+	+	+
		wä	40%	80							+	+										+	+				+	+
		wä	40%	100							+	+											+				+	+
1341	formamide		TR	20	-	+	+	+		+	+			+		+	+	0	0	+	+		+	+	+	+	+	+
			TR	40		+	+	+		+	+			+		+	+	0	0	+	+		+	+	+	+	+	+
			TR	60		+	+	+		+	+			+			-	+	0	0	+	+		+	+	+	+	+
			TR	80						+	+											+				+	+	+
			TR	100						+	+											+				+	+	+
1342	Freon 11 (CFC-11, F-11)	gf	TR, GK	20	+	-	-	-	+	+	+			-		+	-	0	0	-								
		gf	TR, GK	40					+	+	+																	
		gf	TR, GK	60					+	+	+																	
		gf	TR, GK	80					+	+	+																	
		gf	TR, GK	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

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Release Date: 2025-09-05

1343		Freon 112 (CFC-112, F-112)																										
1,1,2,2-tetrachloro-1,2-difluoroethane CCl2FCCl2F C2Cl4F2 P		TR	20	+	-	-	-	+	+	+		0	-	0	0	0	+	-										
		TR	40					+	+	+																		
		TR	60					+	+																			
		TR	80					+	+																			
		TR	100					+	+																			
1344		Freon 113 (CFC-113, F-113)																										
1,2,2-trichloro-1,1,2-trifluoroethane CClF2CCl2F C2Cl3F3 P		TR	20	+				+	+	+					+	-	+	+	-									
		TR	40					+	+	+																		
		TR	60						+	+																		
		TR	80						+	+																		
		TR	100						+	+																		
1345		Freon 12 (CFC-12, F-12)																										
dichlorodifluoromethane CCl2F2		TR, GK	20	+	0	0	0	+	+	+	+	0		0	0	0	0	+										
		TR, GK	40						+	+	+								+									
		TR, GK	60						+	+																		
		TR, GK	80						+	+																		
		TR, GK	100						+	+																		
1346		Freon 21 (HCFC-21, F-21)																										
dichlorofluoromethane CHCl2F		TR, GK	20	-	-	-	-	+	+	+			-					-										
		TR, GK	40					+	+	+																		
		TR, GK	60					+	+	+																		
		TR, GK	80					+	+	+																		
		TR, GK	100					+	+	+																		
1347		Freon 22 (CFC-22, F-22)																										
chlorodifluoromethane CHClF2		TR, GK	20	+				+	+	+								-										
		TR, GK	40					+	+	+																		
		TR, GK	60					+	+	+																		
		TR, GK	80					+	+	+																		
		TR, GK	100					+	+	+																		

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

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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
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					-	+	+										+	+		+	+	+	+	+
1351	furfural		TR	20	-	+	+	+	-	+	+			+		-	0	-	-	+	+		+	+	+	+	+	+
			TR	40		+				+	+									+	+		+	+	+	+	+	+
			TR	60		0				+	+									+	+		+	+	+	+	+	+
			TR	80						+	+									+	+					+	+	+
			TR	100						+	+										+						+	+

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Chemical Resistance

Release Date: 2025-09-05

		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
1352	furfuryl alcohol		TR	20	-	+	+	+	+	+	+	-		+		-	0	-	-	+	+		+	+	+	+	+	+
	2-furylmethanol		TR	40		+	0	0	+	+	+			0						+	+		+	+	+	+	+	+
	2-hydroxymethylfuran		TR	60		+	0	0	0	+	+			0						+	+		+	+	+	+	+	+
			TR	80						+	+										+					+	+	+
	C5H6O2		TR	100						+	+										+					+	+	+

1353	Genapol X-080		TR	20						+	+							+	+	+	+		+	+	+	+	+	+
	fatty alcohol ethoxylate isoC13O(EO)8		TR	40						+	+							+	+	+	+		+	+	+	+	+	+
			TR	60						+	+									+	+		+	+	+	+	+	+
	(CH3)2CH(CH2)10O(CH2CH2O)8H		TR	80						+	+									+	+		+	+	+	+	+	+
	C29H60O9		TR	100						+	+												+		+	+	+	+

1356	gelatine			20	+	+	+	+	+	+	+			+		+	+	+	+								+	
				40	+	+	+	+	+	+	+			+		+	+	+	+								+	
				60		+	+	+	+	+	+			+														
				80					+	+	+																	
				100						+	+																	

1358	glutamic acid	wä	VL	20	+	+	+	+	+	+	+			+						+	+	+	+	+	+			+
	2-aminoglutaric acid	wä	VL	40		+	+	+		+	+			+						+	+	+	+	+	+			+
		wä	VL	60		+	+	+		+	+			+						+	+	+	+	+	+			+
	HO2CCH2CH2CH(NH2)CO2H	wä	VL	80						+	+									+	+		+	+	+			+
	C5H9NO4	wä	VL	100						+	+										+							+

1359	glycolic acid	wä	37%	20	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+		+	+	+		0	+
	hydroxyacetic acid	wä	37%	40	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+		+	+	+			+
		wä	37%	60	0	+	0	0	+	+	+			0		+	+	+	+	+	+		+	+	+			
	HOCH2CO2H	wä	37%	80					+	+	+									+	+							
	C2H4O3	wä	37%	100					0	+	+									+	+							

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1360		glycerol		TR	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+		
propanetriol HOCH2CH(OH)CH2OH C3H8O3				TR	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+		
				TR	60	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+	+	+	
				TR	80			+	+	+	+	+	+			+		+	+	+	+	+	+					+	+	+
				TR	100						+	+	+					+	+	+	+	+	+				+	+	+	
				TR	120							+	+										+					+	+	+

1361		3-chloro-1,2-propanediol		TR	20	+	+	+	+	+	+	+			+		-	+	0	0		+		+	+	+	+	+		
ClCH2CH(OH)CH2OH C3H7ClO2				TR	40	0	+			+	+	+						+			+		+	+	+	+	+			
				TR	60		+				+	+	+							+			+		+	+	+	+	+	
				TR	80						+	+	+										+					+	+	+
				TR	100							+	+										+					+	+	+

1362		uric acid	wä	GL	20	+	+	+	+	+	+	+	0		+		+	+	+	+	+	+	+	+	+	+	+	+		
2,6,8-trihydroxypurine C5H4N4O3			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
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Chemical Resistance

Release Date: 2025-09-05

1363		urea	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
carbonic acid diamide carbamide H2NCONH2 CH4N2O			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		TR	20	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+
CH3(CH2)5CH3 C7H16				TR	40		0	0	0	+	+	+	+	+	0		0		+	+	+	+	+	+	+	+	+	
				TR	60		0	0	0	+	+	+		0	0				+	+	+	+	+	+	+	+	+	+
				TR	80					+	+	+		0							+	+		+	+	+	+	+
				TR	100					+	+	+									+	+		+	+	+	+	+

1365		n-hexane		TR	20	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+
CH3(CH2)4CH3 C6H14				TR	40		+	0	0	+	+	+	+	+	0		0		+	+	+	+	+	+	+	+	+	
				TR	60		0	-	-	+	+	+		0	-				+	+	+	+	+	+	+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

		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
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: 2025-09-05

1374		hydroxylamine sulfate		wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
(H3NOH)2SO4 H8N2O6S		wä	VL	40	+	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+			+	+	+	
		wä	VL	60		+	+	+			+	+			+					+	+	+	+	+						+
		wä	VL	80							+	+								+	+	+	+							
		wä	VL	100							+	+								+	+	+	+							
1377		isooctane			TR	20	+	+	+	+	+	+	+	-		+		+	-	+	+	+	+	+	+	+	+	+	+	
2,2,4-trimethylpentane isobutyltrimethylmethane (CH3)2CHCH2C(CH3)3 C8H18			TR	40		0	0	0	+	+	+			0				+	+	+	+	+	+	+	+	+	+	+	+	
			TR	60		0	-	-	+	+	+				-						+	+	+	+	+	+	+	+	+	+
			TR	80			-	-	+	+	+				-							+	+		+	+	+	+	+	+
			TR	100					+	+	+											+	+		+	+	+	+	+	+
1378		2-propanol			TR	20	+	+	+	+	+	+	+	-	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	
Isopropyl alcohol isopropanol (CH3)2CHOH C3H8O			TR	40	+	+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	
			TR	60	0	+	+	+	+	+	+		0	+		-	0	+	+	+	+	+		+	+	+	+	+	+	+
			TR	80					0	+	+							0	0	+	+			+	+	+	+	+	+	+
1379		liquid manure				20		+	+	+		+	+			+														
				40		+	+	+		+	+				+															
				60		+	+	+		+	+				+															
				80						+	+																			
				100						+	+																			
1380		iodine		gf	TR, GK	20	-				+	+	+				-													
I2		gf	TR, GK	40	-					+	+	+																		
		gf	TR, GK	60	-					+	+	+																		
		gf	TR, GK	80							+	+																		
		gf	TR, GK	100							+	+																		

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Chemical Resistance

Release Date: 2025-09-05

Chemical Resistance		Release Date: 2025-09-05																											
1381	iodine potassium iodide solution	wä	3% I2	20	0	+	+	+	+	+	+	+			+	-	+	+	+	+	+	-	+	+	+	+	+	+	
potassium polyiodide solution Kxly lyKx		wä	3% I2	40	-	+	+	+	+	+	+				+			+	+	+	+	+		+	+				
		wä	3% I2	60	-	+	+	+	+	+	+	+				+			+	+	+	+	+		+	+			
		wä	3% I2	80						+	+	+									+	+	+		+	+			
		wä	3% I2	100						+	+	+									+	+							
1383	hydriodic acid	wä	VL	20	+				+	+	+									+	+	-	+	+	+				
HI		wä	VL	40	0				+	+	+									+	+		+	+	+				
		wä	VL	60					+	+	+									+	+		+	+	+				
		wä	VL	80					+	+	+																		
		wä	VL	100					+	+	+																		

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Chemical Resistance

Release Date: 2025-09-05

1384	potash lye		wä	10%	20	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	0	+		
potassium hydroxide			wä	10%	40	+	+	+	+		+	+	+	+	+		+	+	-	-	+	+	+	+	+	+	+		
			wä	10%	60	+	+	+			+	+		+	+			+			+	+	+		+		+		
	KOH		wä	10%	80			+	-		+	+		+	+						+	+			+		+		
	HKO		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	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				-		+	+						0				+	+	-	-	+		+	
			wä	50%	100						+	+																	

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Chemical Resistance

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

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
1385	potassium nitrate	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					+	+	+									+						+
1386	potassium acetate	wä	GL	20	+	+	+	+	+	+		+	+			+			+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+		+	+			+			+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+		+	+			+			+	+	+	+	+			+
		wä	GL	80			+	+	+	+			+			+			+	+		+	+	+		+
		wä	GL	100					0	+	+								+	+						+
1387	potassium hydrogencarbonate	wä	GL	20	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60		+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+		+	+		+	+	-		+	+	+	+		+	+	+	+	+
		wä	GL	100						+	+								+	+				+	+	+
1388	potassium dichromate	wä	GL	20	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+		+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+		0	+	+	+	+	+		+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+		+	+		+	+	+	+	+		+	+	+	+	+
		wä	GL	80			+	+	+	+	+		+						+	+		+	+	+	+	+
		wä	GL	100					+	+	+								+	+				+	+	+
K2Cr2O7	Cr2K2O7																									

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Chemical Resistance

Release Date: 2025-09-05

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
1389 potassium bisulfate KHSO4 HKO4S	potassium hydrogensulfate	wä 30%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 30%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 30%	60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 30%	80			+	+	+	+	+	+	+	+	-	+	+	+	+	+	+
		wä 30%	100					+	+								+	+		+
1390 potassium bisulfite KHSO3 HKO3S	potassium hydrogensulfite	wä GL	20	+	+	+	+	+	+			+		+	+	+	+	+	+	+
		wä GL	40	+	+	+	+	+	+			+		+	+	+	+	+	+	+
		wä GL	60		+	+	+	+	+			+		+	+	+	+	+	+	+
		wä GL	80			+	+	+	+			+		-	+	+	+	+	+	+
		wä GL	100					+	+								+	+		+
1391 tartar L(+)-tartaric acid monopotassium salt KO2CCH(OH)CH(OH)CO2H C4H5KO6	potassium hydrogen-L-tartrate	wä GL	20	+	+	+	+	+	+			+		+	+	+	+	+	+	+
		wä GL	40	+	+	+	+	+	+			+					+	+	+	+
		wä GL	60		+	+	+	+	+			+					+	+	+	+
		wä GL	80					+	+								+	+		
		wä GL	100					+	+								+	+		
1392 K3BO3 BK3O3	potassium borate	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: 2025-09-05

		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		
1393	potassium bromate	wä	GL	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+			0			
KBrO3 BrKO3		wä	GL	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+			0			
		wä	GL	60	0	0	0	0	+	+	+			0			+	+	+	+	+		+	+			0			
		wä	GL	80					+	+	+						-	+	+	+	+	+								
		wä	GL	100					+	+	+						-	+	+	+	+	+								
1394	potassium bromide	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
KBr BrK		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
		wä	GL	60	0	+	+	+	+	+	+		+	+	+	+	0	+	+	+	+	+	+	+	+			+		
		wä	GL	80			+	+	+	+	+	+		+		+	0	+	+	+	+	+		+	+	+			+	
		wä	GL	100					+	+	+	+						+	+	+	+	+						+		
1395	potassium carbonate	wä	10%	20	+	+	+	+	0	+	+	+	+	+		+	+	+	+	+	+		+	+	+			+		
potash K2CO3 CK2O3		wä	10%	40	+	+	+	+	-	+	+	+	+	+			+	0	0	+	+		+	+	+			+		
		wä	10%	60	0	+	+			+	+		+	+			+	-	-	+	+		+		+			+		
		wä	10%	80			+			+	+			+				+			+	+				+			+	
		wä	10%	100						+	+										+								+	
		wä	25%	20	+	+	+	+	-	+	+	+	+	+	+		+	+	0	0	+	+		+	+	+			+	
		wä	25%	40	+	+	+	+	-	+	+	+	+	+	+			+	-	-	+	+		+	+	+			+	
		wä	25%	60	0	+	+			+	+				+			+			+	+		+		+			+	
		wä	25%	80			+			+	+				+			+			+	+				+			+	
		wä	25%	100						+	+										+								+	
		wä	53% (GL)	20	+	+	+	+	-	+	+		+	+	+	+		+	+	0	0	+	+		+	+	+			+
		wä	53% (GL)	40	+	+	+	+	-	+	+		+	+	+	+		+	-	-	+	+		+	+	+			+	
		wä	53% (GL)	60	0	+	+			+	+				+			+			+	+		+		+			+	
		wä	53% (GL)	80			+			+	+				+			+			+	+				+			+	
		wä	53% (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: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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		
KClO3 ClKO3	1396	wä	potassium chlorate	20	+	+	+	+	+	+	+			+		-	+	+	+	+	+		+	+	+	+	+	+		
				40	+	+	+	+	+	+	+	+	+			+		-	+	+	+	+	+		+	+	+	+	+	
				60	0	+	+	+	+	+	+	+	+			+			+	+	+	+	+		+	+	+	+	+	
				80						+	+	+	+						+	+	+	+	+						+	
				100									+	+							+	+	+	+						
KCl ClK	1397	wä	potassium chloride	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+		
				40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	
				60	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+			+	
				80			+	+	+	+	+	+	+		+	+	+			+	+	+	+	+	+	+			+	
				100					+	+	+	+	+							+	+	+	+	+					+	
KClO2 ClKO2	1398	wä	potassium chlorite	20	+	+	+	+	+	+	+			+						+	+		+	+	+			+		
				40		+	+	+	+	+	+			+							+	+		+	+	+			+	
				60		+	+	+	+	+	+			+							+	+		+	+	+			+	
				80					+	+	+																			
				100					+	+	+																			
K2CrO4 CrK2O4	1399	wä	potassium chromate	20	+	+	+	+	+	+	+	+	+	+		0	+	+	+	+	+	+		+	+	+		+		
				40	+	+	+	+	+	+	+	+	+	+	+	+		0	+	+	+	+	+	+		+	+	+		+
				60	+	+	+	+	+	+	+	+	+			+		-	+	+	+	+	+	+		+	+	+		+
				80					+	+	+											+	+		+	+	+			
				100					+	+	+											+	+							
KOCN CKNO	1400	wä	potassium cyanate	20						+	+													+	+	+				
				40						+	+														+	+	+			
				60						+	+														+	+	+			
				80						+	+														+	+	+			
				100						+	+															+	+	+		

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Chemical Resistance

Release Date: 2025-09-05

		Condition	Concentration	T Temperature [°C]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Chemical Resistance

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Chemical Resistance

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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		
1406	potassium metaborate	wä	GL	20	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+			+		
		wä	GL	40	+	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+			+		
		wä	GL	60		+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+			+		
		wä	GL	80					+	+	+									+	+		+	+			+		
		wä	GL	100					+	+	+									+	+						+		
K3B3O6 B3K3O6																													
1407	potassium nitrite	wä	GL	20	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+			+	
		wä	GL	60	0	+	+	+	+	+	+			+			0	+	+	+	+	+	+	+	+			+	
		wä	GL	80						+	+						0	+	+	+	+	+	+	+	+			+	
		wä	GL	100						+	+							+	+	+	+	+						+	
KNO2																													
1408	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						+	+										+	+							
KClO4 ClKO4																													
1409	potassium permanganate	wä	6%	20	+	+	+	+	+	+		+	+			0	+	+	+	+	+		+	+	+			+	
		potassium manganate(VII)	wä	6%	40	+	+	+	+	+	+		+	+			-	+	+	+	+	+		+	+	+			+
		wä	6%	60	0	0	0	0	+	+	+			0				+	+	+	+	+		+	+	+			+
		wä	6%	80					+	+	+										+	+							
		wä	6%	100						+	+										+	+							
KMnO4																													

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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
1410	potassium persulfate	wä	GL	20	+	+	+	+	+	+	+			+		-	+	+	+	+	+	+		+	+			+
potassium peroxodisulfate		wä	GL	40	+	+	+	+	+	+	+			+		-	+	+	+	+	+	+		+	+			+
K2S2O8		wä	GL	60	0	+	+	+	+	+	+			+		-	+	+	+	+	+	+		+	+			+
K2O8S2		wä	GL	80					+	+	+						+	+	+	+	+							+
		wä	GL	100						+	+							+	+	+	+							
1411	potassium dihydrogenphosphate	wä	GL	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+			+
KH2PO4		wä	GL	40	+	+	+	+	+	+	+		+	+		0	+	+	+	+	+	+	+	+	+			+
H2KO4P		wä	GL	60	0	+	+	+	+	+	+		+	+		-	+	+	+	+	+	+	+	+	+			+
		wä	GL	80					+	+	+						+	+	+	+	+		+	+	+			+
		wä	GL	100					+	+	+									+	+							+
1412	potassium sulfate	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
K2SO4		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
K2O4S		wä	GL	60	0	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+	+	+	+		+	+	+		+	+	+	+	+		+	+	+			+
		wä	GL	100					+	+	+							+	+	+	+							+
1413	potassium sulfide	wä	VL	20	+	+	+	+	0	+	+			+		+	+	-	-	+	+	+	+	+	+			+
K2S		wä	VL	40	+	+	+	+	0	+	+			+		+	+			+	+	+	+	+	+			+
		wä	VL	60	0	+	+	+	0	+	+			+		+	+			+	+		+	+	+			+
		wä	VL	80						+	+									+	+							+
		wä	VL	100						+	+									+	+							+
1414	potassium sulfite	wä	GL	20	+	+			+	+	+				+			+	+	+	+	+	+	+	+			+
K2SO3		wä	GL	40	+	+			+	+	+				+			+	+	+	+	+	+	+	+			+
K2O3S		wä	GL	60	0	+			+	+	+							+	+	+	+	+	+	+	+			+
		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: 2025-09-05

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
1415	potassium L-tartrate L(+)-tartaric acid dipotassium salt KO ₂ CCH(OH)CH(OH)CO ₂ K C ₄ H ₄ K ₂ O ₆	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+		+	+			+	+	+	+	+	+
		60		+	+	+	+	+	+		+	+			+	+	+	+	+	+
		80					+	+	+									+	+	+
		100					+	+	+									+	+	+
1417	(±)-borneol C ₁₀ H ₁₈ O	20	-	-	-	-	+	+	+				-	-	0	+	+		+	+
		40					+	+	+									+	+	+
		60						+	+									+	+	+
		80						+	+									+	+	+
		100						+	+									+	+	+
1420	sodium hexafluorosilicate sodium fluorosilicate Na ₂ SiF ₆ F ₆ Na ₂ Si	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+
		60	0	+	+	+	0	+	+		+	+		+	+	+	+	+	+	+
		80					-	+	+									+	+	
		100						+	+									+	+	
1421	silicic acid orthosilicic acid H ₄ SiO ₄ = Si(OH) ₄ H ₄ O ₄ Si	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
		40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
		60	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+
		80					+	+	+						+	+	+	+	+	+
		100					+	+	+						+	+	+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

		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	+	+	+	+	+	+	+		+	+		+	+	+	+	+								
CO2		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	+	+	+	+	+	+			+		+	+	+	+	+									
CO		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	+	+	-	+		+	-	-	-
aqua regia		wä		40	-					+	+										+		+		+			
		wä		60						+	+																	
		wä		80						+	+																	
		wä		100						+	+																	
1426	creosote			20	-				+	+		-			-	-			+	+		+	+	+	+	+	+	
guajacol/cresol-mixture				40					+	+									+	+		+	+	+	+	+	+	+
				60					+	+									+	+		+	+	+	+	+	+	+
				80					+	+										+	+		+	+	+	+	+	+
				100					+	+											+		+		+	+	+	+
				120					+	+													+		+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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
1427	cresol (o-, m-, a. p-)	wä	GL	20	0	+	+	+	+	+	+		-	+		0	-	+	+	+	+		+	+	+	+	+	+
	methylphenol (o-, m-, a. p-)	wä	GL	40		+	+	+	+	+	+			+		0		+	+	+	+		+	+	+	+	+	+
		wä	GL	60			+	+	+	+	+			+						+	+		+	+	+	+	+	+
	CH3C6H4OH	wä	GL	80					0	+	+									+	+		+	+	+	+	+	+
	C7H8O	wä	GL	100						+	+									+	+		+		+	+	+	+
1428	cresol sulfonic acid	wä	GL	20	+	+				+	+					-	-	+	+	+	+	+	+	+	+			+
		wä	GL	40	+					+	+						0	0	+	+	+	+	+	+	+			+
		wä	GL	60	+					+	+									+	+		+	+	+			+
	CH3C6H3(OH)SO3H	wä	GL	80						+	+										+		+	+	+			+
	C7H8O4S	wä	GL	100						+	+										+							+
1429	copper(I) chloride	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+	+			+
	CuCl	wä	GL	80			+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			+
	ClCu	wä	GL	100						+	+										+	+	+					+
1431	copper(II) acetate arsenate(III)	wä	GL	20	+	+	+	+		+	+			+		+	+	+	+									
	Schweinfurter Green	wä	GL	40		+	+	+		+	+			+		+	+	+	+									
		wä	GL	60						+	+					0	+	+	+									
	3Cu(AsO2)2 • Cu(CH3CO2)2	wä	GL	80						+	+						+	+	+									
	C4H6As6Cu4O16	wä	GL	100						+	+																	
1432	copper(II) carbonate basic	wä	GL	20	+	+	+	+		+	+		+	+		+	+	+	+	+	+	+		+	+	+		+
	copper(II) hydroxide carbonate	wä	GL	40	+	+	+	+		+	+		+	+		+	+	+	+	+	+	+		+	+	+		+
	copper(II) carbonate hydroxide	wä	GL	60		+	+	+		+	+			+		0	+	+	+	+	+	+		+	+	+		+
	CuCO3 • Cu(OH)2	wä	GL	80						+	+						+	+	+	+	+	+						+
	CH2Cu2O5	wä	GL	100						+	+									+	+							+

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Chemical Resistance

Release Date: 2025-09-05

		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
1433	copper(II) chloride	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	
CuCl2 Cl2Cu		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	60	+	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+			+	
		wä	GL	80					+	+	+						+	+	+	+	+	+	+	+				
		wä	GL	100						+	+									+	+	+	+					
	1434	copper(I) cyanide	wä	GL	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+		+
CuCN CCuN		wä	GL	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+		+	
		wä	GL	60		+	+	+	+	+	+			+		0	+	+	+	+	+		+	+	+		+	
		wä	GL	80					+	+	+						+	+	+	+	+						+	
		wä	GL	100						+	+										+						+	
	1435	copper(II) nitrate	wä	30%	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+
Cu(NO3)2 CuN2O6		wä	30%	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	
		wä	30%	60	0	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	
		wä	30%	80	-				+	+	+						+	+	+	+	+		+	+	+	+	+	
		wä	30%	100					+	+	+										+	+				+	+	
		wä	50%	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			
		wä	50%	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			
		wä	50%	60	0	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+	+			
		wä	50%	80					+	+	+						+	+	+	+	+	+		+	+			
		wä	50%	100						+	+									+	+							
		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: 2025-09-05

		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
1436	copper(II) sulfate	wä	GL	20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	+	+	+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+	+	+	+						+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100						+	+	+									+	+	+			+	+	+
1437	copper(II) fluoride	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	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: 2025-09-05

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
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	20					+	+	+								+	+
		40					+	+	+								+	+
		60					+	+	+								+	+
		80					+	+	+								+	+
		100					+	+	+									
		120					+											
1443	lauroyl chloride lauric acid chloride dodecanoyl chloride CH3(CH2)10COCl C12H23ClO	20	-				+	+	+								+	+
		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	
1444	lauryl alcohol		TR	20	+				+	+	+						-	+	+	+	+		+	+	+	+	+	+	
1-dodecanol CH3(CH2)11OH C12H26O			TR	40	+				+	+	+						-	+	+	+	+		+	+	+	+	+	+	
			TR	60	+				+	+	+	+								+	+	+		+	+	+	+	+	+
			TR	80							+	+									+	+		+	+	+	+	+	+
			TR	100							+	+									+	+		+	+	+	+	+	+
			TR	120							+	+										+	+		+	+	+	+	+
1446	cod-liver oil			20	+	+	+	+		+	+			+			-			+	+		+	+	+	+	+	+	
fish liver oil				40		+				+	+									+	+		+	+	+	+	+	+	
				60		0				+	+										+	+		+	+	+	+	+	
				80						+	+											+		+	+	+	+	+	
				100						+	+											+		+		+	+	+	
				120						+	+											+	+		+	+	+	+	
1447	light petrol		TR	20	+	+	+	+	+	+	+		+	+		+	-	+	+	+	+		+	+	+	+	+		
petroleum ether benzine P			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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UBBE

Chemical Resistance

Release Date: 2025-09-05

		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	
1455	lithium bromide	wä	GL	20	+	+	+	+	+	+	+	-	+	+	+		+	+	+	+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+		+	+	+	+	+	+	+	+			+	
		wä	GL	60		+	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+			+	
		wä	GL	80					+	+	+	+							+	+	+	+		+	+			+	
		wä	GL	100						+	+	+									+	+						+	
LiBr																													
BrLi																													
1456	lithium carbonate	wä	GL	20	+	+	+	+	-	+	+	-	+	+			+	0	0	+	+		+	+	+	+			+
		wä	GL	40	+	+	+	+	-	+	+		+	+				+	-	-	+	+		+	+	+			+
		wä	GL	60	0	+	+		-	+	+				+						+	+			+				+
		wä	GL	80						+	+											+							+
		wä	GL	100						+	+											+							+
Li2CO3																													
CLi2O3																													
1457	lithium chloride	wä	GL	20	+	+	+	+	+	+	+	-	+	+	+		+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+		+	+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+				+			+	+	+	+	+	+	+	+	+			+
		wä	GL	80					+	+	+								+	+	+	+		+	+	+			+
		wä	GL	100					+	+	+										+	+							+
LiCl																													
CiLi																													
1459	lithium hydroxide	wä	GL	20	+	+	+	+	-	+	+	-		+			+	-	-	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+		+	+			+				+			+	+	+	+	+	+			+
		wä	GL	60		+	+			+	+				+						+	+	+						+
		wä	GL	80				-		+	+											+	+						+
		wä	GL	100						+	+											+							
LiOH																													
HLiO																													
1460	lithium sulfate	wä	GL	20	+	+	+	+	+	+	+	-	+	+	+		+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+		+	+	+	+	+	+	+	+	+			+
		wä	GL	60	0	+	+	+	+	+	+				+			+	+	+	+	+	+	+	+	+			+
		wä	GL	80					+	+	+								+	+	+	+		+	+	+			+
		wä	GL	100					+	+	+										+	+							+
Li2SO4																													
Li2O4S																													

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

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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	
1461	air	gf		20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+				+	+	+	+	
		gf		40	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+				+	+	+	+	
		gf		60	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+				+	+	+	+	
		gf		80		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+				+	+	+	+	
		gf		100			+	+	+	+	+	+		+	+		+	+	+	+	+				+	+	+	+	
		gf		120						+	+	+					+	+	+	+	+					+	+	+	
1462	magnesium carbonate basic	wä	GL	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	60		+	+	+	+	+	+		+	+			+	+	+	+	+	+		+	+			+	
		wä	GL	80					+	+	+						+	+	+	+	+	+						+	
		wä	GL	100						+	+							+	+	+	+	+						+	
1463	magnesium chloride	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						+	+	+							+	+	+	+	+					+	
1464	magnesium fluoride	wä	GL	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			+	
		wä	GL	60		+	+		+	+	+			+			+	+	+	+	+	+	+	+	+			+	
		wä	GL	80					+	+	+							+	+	+	+	+						+	
		wä	GL	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
1465	magnesium hydroxide	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40		+	+	+	+		+	+		+	+	+	+	+		+	+	+		+
		wä	GL	60		+	+	+	+		+	+			+	+	+	+		+			+	+
		wä	GL	80				+	+						+	+	+	+					+	+
		wä	GL	100				+	+									+						+
1466	magnesium nitrate	wä	GL	20	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	+	+		+	+		+	+	+	+	+	+		+	+	+	+
		wä	GL	80				+	+						+	+	+	+	+		+	+	+	+
		wä	GL	100				+	+									+	+					+
1467	magnesium oxide	wä	GL	20	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+
		wä	GL	60		+	+	+	+		+	+			+	+	+	+	+	+	+	+	+	+
		wä	GL	80					+									+	+		+	+	+	+
		wä	GL	100					+									+	+					+
1468	magnesium 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		+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	80			+	+	+			+	+		+	+	+	+	+	+	+	+	+	+
		wä	GL	100				+	+									+	+	+				+

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Release Date: 2025-09-05

1469		magnesium sulfite	wä	GL	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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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: 2025-09-05

			Condition	Concentration	T 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				
1474	marmelade				20	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+		+			+	+	+	+			
					40	0	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+		+			+	+	+	+		
					60	0	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+		+					+	+	+	
					80			+	+	+	+	+	+	+			+			+	+	+	+	+						+	+	+	
					100					+	+	+	+	+									+	+							+	+	+
1476	molasses				20	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+	+	+	+	+	+		
					40	+	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+	+	+	+	+	+	+
					60	0	+	+	+	+	+	+	+				+		+	+	+	+	+	+		+	+	+	+	+	+	+	+
					80					+	+	+	+					+	+	+	+	+	+	+		+	+	+	+	+	+	+	+
					100					+	+	+	+	+									+	+					+	+	+	+	+
1477	methane		gf	TR, GK	20	+	+	+	+	+	+	+	+		+		+	0	+	+	+	+					+	+	+	+			
			gf	TR, GK	40					+	+	+	+									+						+	+	+	+	+	
			gf	TR, GK	60					+	+	+										+						+	+	+	+	+	
			gf	TR, GK	80					+	+	+										+						+	+	+	+	+	
			gf	TR, GK	100					+	+	+										+						+	+	+	+	+	+
1478	malonic acid		wä	GL	20	0	+	+	+		+	+			+						+	+		+	+	+				+			
			wä	GL	40		+	+	+		+	+				+						+	+		+	+	+				+	+	
			wä	GL	60		+	+	+		+	+				+						+	+		+	+	+				+	+	
			wä	GL	80						+	+										+	+								+	+	
			wä	GL	100						+	+										+	+								+	+	
1479	methanol			TR	20	+	+	+	+	+	+	+	-	+	+		-	+	-	+	+	+	+		+	+	+	+	+	+	+		
				TR	40	+	+	+	+	+	+	+	+		+	+			+		+	+	+	+		+	+	+	+	+	+	+	
				TR	60	0	+	+	+	+	+	+	+			+			0			+	+			+	+	+	+	+	+	+	+

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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
1480	methanesulfonic acid	wä	73%	20					+	+	+	-				+	+	+	+		+	+	+			+	
methylsulfuric acid		wä	73%	40					+	+	+					+	+	+	+		+	+	+			+	
		wä	73%	60					+	+	+					+	+	+	+		+		+			+	
CH3SO3H		wä	73%	80					+	+	+					+	+	+	+		+		+				
CH4O3S	P	wä	73%	100						+	+							+	+								
			TR	20	0	+	0	0	+	+	+	-		-			+	+	+	-	+	+	+			+	
			TR	40				-	+	+	+			-			+	+	+		+	+	+			+	
			TR	60					0	+	+							+	+		+		+			+	
			TR	80					0	+	+							+	+		+		+				
			TR	100						+	+								+								
1481	methyl acetate		TR	20	-	+	+	+	+	+	+	-	-	+		-	-	-	+	+		+	+	+	+	+	+
acetic acid methyl ester			TR	40		0	0	0	0	+	+			0					+	+		+	+	+	+	+	+
			TR	60		-	-	-	-	+	+			-					+	+		+	+	+	+	+	+
CH3CO2CH3																											
C3H6O2	P																										
1482	methylamine	wä	32%	20	0	+	+	+	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					+	+	+								+								
CH3Br		gf	TR, GK	100					+	+	+																

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Chemical Resistance

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		Condition	Concentration	T 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
1484	methyl chloride	gf	TR, GK	20	-	0	-	-	+	+	+			-			-	-	-	+	+							
chloromethane CH3Cl		gf	TR, GK	40					+	+	+									+	+							
		gf	TR, GK	60						+	+	+									+	+						
		gf	TR, GK	80						+	+	+									+	+						
		gf	TR, GK	100						+	+	+																
1485	methylcyclohexane		TR	20		0	-	-		+	+			-			-			+	+		+	+	+	+	+	+
hexahydrotoluene C6H11CH3 C7H14P			TR	40		0				+	+						-			+	+		+	+	+	+	+	+
			TR	60							+	+								+	+		+	+	+	+	+	+
			TR	80							+	+								+	+		+	+	+	+	+	+
			TR	100							+	+								+	+		+	+	+	+	+	+
1487	methyl formate		TR	20	-					+	+	-	-							+	+		+	+	+	+	+	+
formic acid methyl ester HCO2CH3 C2H4O2P			TR	40						+	+									+	+		+	+	+	+	+	
1488	methyl isobutyl ketone (MIBK)		TR	20	-					+	+	-	-					-	-	+	+		+	+	+	+	+	+
4-methyl-2-pentanone isobutyl methyl ketone (CH3)2CHCH2COCH3 C6H12O			TR	40						+	+									+	+		+	+	+	+	+	
			TR	60							+	+									+	+		+	+	+	+	+
			TR	80							+	+										+		+	+	+	+	+
1489	methyl methacrylate		TR	20	-								-							+	+		+	+	+	+	+	+
methacrylic acid methyl ester CH2=C(CH3)CO2CH3 C5H8O2			TR	40																+	+		+	+	+	+	+	
			TR	60																	+	+		+	+	+	+	+
			TR	80																		+		+	+	+	+	+

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: 2025-09-05

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
1490	methyl salicylate	TR	20	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
		TR	40	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
		TR	60	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
		TR	80	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
		TR	100	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
1491	dimethyl sulfate	TR	20	-	+	+	+	+	+	-	-	+	+	+	+	0	0	+
		TR	40	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
		TR	60	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
		TR	80	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
		TR	100	-	+	+	+	+	+	-	-	+	+	+	+	+	+	+
1492	milk	TR	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		TR	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

		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	
1493	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							+	+									+	+							

1494	mineral oils			20	+	+	+	+	+	+	+	+		+		+	-	+	+	+	+	+	+	+	+	+	+	+
				40	+	+	+	+	+	+	+	+		+		+		+	+	+	+	+	+	+	+	+	+	+
				60	+	0	0	0	+	+	+				0		+		+	+	+	+	+	+	+	+	+	+
				80					+	+	+										+		+	+	+	+	+	+
				100			-	-	+	+	+				-							+		+		+	+	+
				120					+	+	+											+		+		+	+	+

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Chemical Resistance

Release Date: 2025-09-05

1495		mixed acid: HNO3 20%, H2SO4 10%		wä		20	+	0	-	+	+	-						0	+	+	+	+		+							
HNO3 20%, H2SO4 10%, H2O 70% P				wä		40	+			+	+	+						-	0	+	+	+	+		+						
				wä		60				+	+	+	+												+						
				wä		80							+	+	+																
				wä		100								+	+																
1496		mixed acid: HNO3 87%, H2SO4 10%		wä		20	-	-	-	-	0	+	+	-	-	-	-	-	-	-			-								
HNO3 87%, H2SO4 10%, H2O 3% P				wä		40					+	+																			
				wä		60							+	+																	
				wä		80							+	+																	
				wä		100							+	+																	
1497		mixed acid: H2SO4 50%, HNO3 33%		wä		20	-	-	-	-	+	+	+	-	-	-	-	-			+	+	-	+		+					
H2SO4 50%, HNO3 33%, H2O 17% P				wä		40					+	+									+	+		+		+					
				wä		60							+	+											+		+				
				wä		80							+	+																	
				wä		100							+	+																	
1498		mixed acid: H2SO4 50%, HNO3 50%				20	-	-	-	-	+	+	+	-	-	-	-	-	-	-			-								
H2SO4 50%, HNO3 50%, H2O 0% P						40					+	+																			
						60							+	+																	
						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: 2025-09-05

JBBE		Chemical Resistance		Release Date: 2025-09-05		Material																							
						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
1499	mixed acid: H2SO4 18%, HNO3 15%, HF 5%	wä		20	+	0	-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-
		wä		40	+	0	-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-
		wä		60	+		-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-
		wä		80	+		-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-
		wä		100	+		-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-
					+		-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-
				H2SO4 18%, HNO3 15%, HF 5%, H2O 62%		P																							
1500	mixed acid: HNO3 50%, HF 10%	wä		20	0	-	-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-
		wä		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: 2025-09-05

1503		mixed acid: HNO3 59%, HF 4,5%		wä		20	0	-	-	-	-	+	+	+	+	-	-	+	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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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: 2025-09-05

		Condition	Concentration	T 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
1508	naphthalene sulfonic acid (mixture of isomers)		TR	20	+	+				+	+					0		+	+									
			TR	40						+	+					0		+	+									
			TR	60							+	+					-		-	-								
			TR	80							+	+																
			TR	100							+	+																
C10H7SO3H																												
C10H8O3S																												

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

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

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Chemical Resistance

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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	
1517	sodium hydrosulfide	wä		20	+	+	+	+	+	+	+			+		0	+	0	0							+	+	+	
		wä		40	0	+	+	+	+	+	+				+			+	-	-					+	+	+		
		wä		60		+	+	+	+	+	+				+			+								+	+	+	
		wä		80						+	+	+																	
		wä		100						+	+	+																	
1518	sodium hydrosulfite	wä	10%	20	+	+	+	+	+	+	+	+	+	+		-	+	+	+	+	+	+		+	+	+	+	+	+
		wä	10%	40	+	+	+	+	+	+	+	+	+	+	+			+	-	+	+	+		+	+	+	+	+	+
		wä	10%	60	0	+	+	+	+	+	+				+			+		+	+	+		+	+	+	+	+	+
		wä	10%	80			+	+	+	+	+				+			0			+	+		+	+	+			+
		wä	42% (GL)	20	+	+	+	+	+	+	+	+	+	+	+		-	+	+	+	+	+		+	+	+	+	+	+
		wä	42% (GL)	40	+	+	+	+	+	+	+	+	+	+	+			+	0	+	+	+		+	+	+	+	+	+
1519	sodium perborate	wä	GL	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+		+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+		0	+	0	0	+	+		+	+	+			+
		wä	GL	60	0	+	+	+	+	+	+				+			+	-	-	+	+		+	+	+			+
		wä	GL	80			+	+	+	+	+				+			0				+		+	+	+			+
		wä	GL	100					+	+	+											+							+
1520	sodium bromate	wä	GL	20	+	+	+	+	+	+	+			+		+	+	+	+					+	+	+			
		wä	GL	40	0	0	0	0	+	+	+			0		0	+	+	+					+	+	+			
		wä	GL	60					+	+	+						-	+	+	+				+	+	+			
		wä	GL	80					+	+	+																		
		wä	GL	100					+	+	+																		

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Chemical Resistance

Release Date: 2025-09-05

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
1521	sodium bromide	wä 10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+
		wä 10%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	80			+	+	+	+	+	+	+	+			+	+	+	+	+	+
		wä 10%	100					+	+	+						+	+	+	+	+	+
		wä 48% (GL)	20	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+
		wä 48% (GL)	40	+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+
		wä 48% (GL)	60	0	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+
		wä 48% (GL)	80			+	+	+	+		+	+	+			+	+	+	+	+	+
		wä 48% (GL)	100					+	+	+								+	+	+	+
1522	sodium carbonate	wä 10%	20	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	40	+	+	+	+	-	+	+	+	+	+		+	0	0	+	+	+	+
		wä 10%	60	0	+	+			+	+		+	+		+	-	-	+	+	+	+
		wä 10%	80			+			+	+		+	+		+			+	+		+
		wä 10%	100						+	+								+			+
		wä 18% (GL)	20	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 18% (GL)	40	+	+	+	+	-	+	+	+	+	+		+	0	0	+	+	+	+
		wä 18% (GL)	60	0	+	+			+	+		+	+		+	-	-	+	+	+	+
		wä 18% (GL)	80			+			+	+		+	+		+			+	+		+
		wä 18% (GL)	100						+	+								+			+
1524	sodium chlorate	wä GL	20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+
		wä GL	40	+	+	+	+	+	+	+			+		0	+	+	+	+	+	+
		wä GL	60	0	+	+	+	+	+	+			+		-	+	+	+	+	+	+
		wä GL	80					0	+	+					0	+	+	+	+		+
		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: 2025-09-05

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
1525 sodium chloride	wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	table salt	wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	brine	wä	10%	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	NaCl	wä	10%	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	CINa	wä	10%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	26% (GL)	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	26% (GL)	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	26% (GL)	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	26% (GL)	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	26% (GL)	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1526 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	36% (GL)	20	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	36% (GL)	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	36% (GL)	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	36% (GL)	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	36% (GL)	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1527 sodium chromate	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	VL	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+
		wä	VL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	Na2CrO4	wä	VL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	CrNa2O4	wä	VL	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: 2025-09-05

1528		sodium citrate		wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
trisodium citrate		wä	VL	40	+	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
citric acid trisodium salt		wä	VL	60		60		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
HOC(CO2Na)(CH2CO2Na)2		wä	VL	80		80					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C6H5Na3O7		wä	VL	100		100					+	+									+								
1529		sodium cyanide		wä	GL	20	+	+	+	+	-	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	40	+	+	+	+	-	+	+		+	+		+	0	0	+	+	+	+	+	+	+	+	+
		wä	GL	60	+	60	+	+		-	+	+		+	+		+	-	-	+	+	+	+	+	+	+	+	+	+
NaCN		wä	GL	80		80			+		+	+		+			+			+	+								+
CNNa		wä	GL	100		100					+	+									+								+
1530		sodium fluoride		wä	GL	20	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	40	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60		60	+	+		+	+	+			+		0	+	+	+	+	+	+	+	+	+	+	+	+
NaF		wä	GL	80		80				+	+	+								+	+								+
FNa		wä	GL	100		100				0	+	+								+	+								+
1531		sodium formate		wä	GL	20		+	+	+		+	+		+	+		+			+	+		+	+	+	+	+	+
formic acid sodium salt		wä	GL	40		40		+	+	+		+	+		+	+		+			+	+		+	+	+	+	+	+
		wä	GL	60		60		+	+	+					+						+	+		+	+	+	+	+	+
HCO2Na		wä	GL	80		80					+	+									+	+		+	+	+	+	+	+
CHNaO2		wä	GL	100		100					+	+									+	+							+
1533		sodium hypophosphite		wä	GL	20	+	+	+	+		+	+			+		+			+	+	+	+	+	+	+	+	+
sodium phosphinate		wä	GL	40	+	40	+	+	+	+		+	+			+		+			+	+	+	+	+	+	+	+	+
		wä	GL	60	0	60	+	+	+			+	+			+					+	+		+	+	+	+	+	+
NaH2PO2		wä	GL	80		80					+	+									+	+		+	+	+	+	+	+
H2NaPO2		wä	GL	100		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: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

	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
1534	sodium iodide	wä	GL	20	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60	0	+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+			+
		wä	GL	80			+	+	+	+	+			+	+			+	+	+	+	+	+	+			+
		wä	GL	100					+	+	+									+	+	+					+
1535	sodium lactate	wä	GL	20	+	+	+	+		+	+		+				+			+	+	+	+	+	+		+
		wä	GL	40		+	+	+		+	+			+				+		+	+	+	+	+			+
		wä	GL	60						+	+									+	+	+	+	+			+
		wä	GL	80						+	+									+	+						+
		wä	GL	100						+	+									+	+						+
1536	sodium nitrate	wä	GL	20	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60	0	+	+	+	+	+	+		+	+		+	+	+	+	+	+		+	+	+		+
		wä	GL	80					+	+	+		+							+	+		+	+	+		+
		wä	GL	100					+	+	+		+							+	+						+
1537	sodium nitrite	wä	GL	20	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+		+	+		0	+	+	+	+	+	+	+	+	+			+
		wä	GL	60		+	+	+	+	+	+		+	+		-	+	+	+	+	+	+	+	+			+
		wä	GL	80					+	+	+		0					+	+	+	+	+	+	+			+
		wä	GL	100					+	+	+									+	+						+
1538	sodium perchlorate	wä	GL	20	+	+	+	+	+	+			+		0	+	+	+	+	+	+		+	+	+		+
		wä	GL	40	+	+	+	+	+	+			+		0	+	+	+	+	+	+		+	+	+		+
		wä	GL	60		+	+	+	+	+			+		0	+	+	+	+	+	+		+	+	+		+
		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

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Chemical Resistance

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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
1539	sodium peroxide	wä	GL	20	+	0	0	0	+	+	+			0	-					+	+		+		+			
		wä	GL	40	+	-	-	-	+	+	+			-						+	+							
		wä	GL	60					+	+	+																	
Na2O2		wä	GL	80					+	+	+																	
Na2O2		wä	GL	100						+	+																	
1540	sodium persulfate	wä	GL	20	+	+	+	+	+	+	+			+		-	+	+	+	+	+		+	+	+			+
	sodium peroxodisulfate	wä	GL	40	+	+	+	+	+	+	+			+			+	+	+	+	+		+	+	+			+
		wä	GL	60	0	+	+	+	+	+	+			+			+	+	+	+	+		+	+	+			+
Na2S2O8		wä	GL	80					+	+	+						+	+	+	+	+							+
Na2O8S2		wä	GL	100						+	+							+	+	+	+							
1541	sodium phosphate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	trisodium phosphate	wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+		+	+	+		+	+	+	+	+	+	+	+	+		+		+	+	+	+
Na3PO4		wä	GL	80			+		0	+	+		+	+	+					+	+					+	+	+
Na3O4P		wä	GL	100						+	+		0							+	+							+
1542	sodium silicate	wä	GL	20	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+		+	+	+	+	+	+
	sodium metasilicate	wä	GL	40	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+		+	+	+	+	+	+
	soda water glass	wä	GL	60	0	+	+		0	+	+			+	+	+	+	0	0	+	+		+		+	+	+	+
Na2SiO3		wä	GL	80			+		-	+	+				+		+			+	+							+
Na2O3Si		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

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Chemical Resistance

Release Date: 2025-09-05

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
1543	sodium sulfate	10%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		10%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		10%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		10%	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		10%	100				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	80			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		GL	100				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1544	sodium sulfide	GL	20	+	+	+	+	0	+	+			+		+	+			+	+	+
		GL	40	+	+	+	+	0	+	+			+		+	+			+	+	+
		GL	60	0	+	+	+	0	+	+			+		+	+			+	+	+
		GL	80					+	+					0	+				+		+
		GL	100					+	+					0					+		+
1545	sodium sulfite	GL	20	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+
		GL	40	+	+	+	+	+	+	+			+	+	0	+	+	+	+	+	+
		GL	60	0	+	+	+	+	+	+			+		-	+	+	+	+	+	+
		GL	80			+	+	+	+	+			+					+	+	+	+
		GL	100					+	+	+								+	+		+
1546	sodium tetraborate	GL	20	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+
		GL	40	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+
		GL	60	0	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+
		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

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Chemical Resistance

Release Date: 2025-09-05

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
1547	soda lye	wä 3%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 3%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 3%	60	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 3%	80	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 3%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 5%	20	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 5%	40	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+
		wä 5%	60	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 5%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 5%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	20	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+
		wä 10%	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 10%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 15%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+
		wä 15%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+
		wä 15%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 15%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 15%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 25%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+
		wä 25%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+
		wä 25%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 25%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 25%	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 30%	20	+	+	+	+	-	+	+	+	+	+	+	+	0	0	+	+	+	+	+
		wä 30%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+
		wä 30%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä 30%	80	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Abbreviations: P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution
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+ = resistant; 0 = conditionally resistant; - = non-resistant

Chemical Resistance

Release Date: 2025-09-05

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	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	wä	GL	20	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+			+
		wä	GL	60	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+
NiCl2		wä	GL	80				+	+	+					+	+	+	+	+	+	+	+			+
Cl2Ni		wä	GL	100				+	+	+								+	+	+					+

1549	nickel(II) nitrate	wä	GL	20	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+
		wä	GL	40	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+			+
		wä	GL	60	0	+	+	+	+	+			+			+	+	+	+	+	+	+			+
Ni(NO3)2		wä	GL	80				+	+	+								+	+		+	+			+
N2NiO6		wä	GL	100				+	+	+								+	+						+

1550	nickel(II) sulfate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+
NiSO4		wä	GL	80			+	+	+	+		+				+	+	+	+	+	+	+	+	+	+
NiO4S		wä	GL	100				+	+	+								+	+		+		+	+	+

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

Release Date: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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	
NiS	1551	nickel(II) sulfide	wä	GL	20	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+			+	
			wä	GL	40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+			+	
			wä	GL	60	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+	+	+			+	
			wä	GL	80			+	+	+	+	+	+			+			+	+	+	+	+	+	+			+	
			wä	GL	100					+	+	+	+									+	+	+		+			+
NiSO3 NiO3S	1552	nickel(II) sulfite	wä	GL	20		+	+	+		+	+		+	+	+	+	+	+	+	+		+	+	+			+	
			wä	GL	40		+	+	+		+	+			+	+	+	+	+	+	+	+		+	+	+			+
			wä	GL	60		+	+	+		+	+			+		+	+	+	+	+	+		+	+	+			+
			wä	GL	80						+	+						+	+	+	+	+		+	+	+			
			wä	GL	100						+	+							+	+	+	+							
L(+)-tartaric acid nickel salt Ni[CO2CH(OH)CH(OH)CO2] C4H4NiO6	1553	nickel(II) L-tartrate	wä	GL	20		+	+	+		+	+		+		+	+	+	+	+	+		+	+	+			+	
			wä	GL	40		+	+	+		+	+			+		+	+	+	+	+	+		+	+	+			+
			wä	GL	60		+	+	+		+	+			+		+	+	+	+	+	+		+	+	+			+
			wä	GL	80						+	+						+	+	+	+	+							
			wä	GL	100						+	+							+	+	+	+							
C10H14N2	1554	(S)-(-)-nicotine	wä	VL	20		+	+	+	+	+	+		+	+		+	+	+	+								+	
			wä	VL	40					+	+	+																	
			wä	VL	60					+	+	+																	
			wä	VL	80						+	+																	
			wä	VL	100						+	+																	
C6H5NO2	1555	nicotinic acid	wä	VL	20	+	+			+	+	+																	
			wä	VL	40	+	+			+	+	+																	
			wä	VL	60	+				+	+	+																	
			wä	VL	80					+	+	+																	
			wä	VL	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: 2025-09-05

Chemical Resistance				Release Date: 2025-09-05																											
Condition	Concentration	T 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					
1556	nitrobenzene	TR	20	-	+	+	+	+	+	+	-	+				0	0	+	+		+	+	+	+	+	+					
C6H5NO2		TR	40		0	0	0	0	+	+		0				-	-	-	+		+	+	+	+	+	+					
		TR	60		0	0	0	-	+	+		0				-	-		+		+	+	+	+	+	+					
		TR	80						+	+									+		+	+	+	+	+	+					
		TR	100						+	+									+		+		+	+	+	+					
		TR	120						+	+									+		+		+	+	+	+					
1557	nitrobenzoic acid (o-, m- a. p-)	wä	VL	20	+	+	+	+	+	+		+									+	+	+								
O2NC6H4CO2H C7H5NO4	wä	VL	40					+	+												+	+	+								
	wä	VL	60					+	+												+	+	+								
	wä	VL	80					+	+												+	+	+								
	wä	VL	100					+	+												+		+								
1559	nitroglycol	wä	VL	20	-	-	-	-	+	+		-		-	+	+	+									+					
ethylene glycol dinitrate O2NOCH2CH2ONO2 C2H4N2O6	wä	VL	40					+	+																						
	wä	VL	60					+	+																						
	wä	VL	80					+	+																						
	wä	VL	100					+	+																						
1560	nitrophenol (o-, m- a. p-)	wä	GL	20	-				+	+	+																				
O2NC6H4OH C6H5NO3	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
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Chemical Resistance

Release Date: 2025-09-05

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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: 2025-09-05

Chemical Resistance																											
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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	
1566	n-octane	TR	20					+	+					+	-	+	+	+	+		+	+	+	+	+	+	
CH3(CH2)6CH3 C8H18		TR	40					+	+							+	+	+	+		+	+	+	+	+	+	
		TR	60					+	+									+	+		+	+	+	+	+	+	
		TR	80					+	+										+		+	+	+	+	+	+	
		TR	100					+	+										+		+	+	+	+	+	+	
		TR	120					+	+											+		+	+	+	+	+	
1567	octyl tolyl ether (o-, m-, a. p-)	TR	20	-	0	0	0		+	+			0			-	0	0									
octyloxytoluene (o-, m-, a. p-) H3CC6H4OCH2(CH2)6CH3 C15H24O		TR	40	-	-	-	-		+	+			-			-											
		TR	60	-	-	-	-		+	+			-			-											
		TR	80						+	+																	
		TR	100						+	+																	
		TR	120						+	+																	
1569	oil (vegetable + animal)		20	+	+	+	+	+	+	+			+		+	-	+	+									
		40	+	+	+	+	+	+	+	+			+		+	-	+	+									
		60	+	0	0	0	+	+	+			0		+	-	+	+										
		80					+	+	+																		
		100					+	+	+																		
1570	oleum		10% SO3	20	-	-	-	-	+	+	-	-	-	-	-	-	-										
H2SO4 + SO3 H2O4S + O3S P		10% SO3	40					+	+																		
		10% SO3	60					+	+																		
		10% SO3	80					+	+																		
		10% SO3	100					+	+																		

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

Release Date: 2025-09-05

		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
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	-	+	+		+			+	+	+		+
		cis-9-octadecenoic acid	TR	40	+	+	+	+	+	+	+	+		+	+		-		0	0		+		+	+	+		+
			TR	60	+	0	0	0	+	+	+	+		+	0				-	-		+		+	+	+		+
		CH3(CH2)7CH=CH(CH2)7CO2H	TR	80		-	-	-	+	+	+	+			-							+		+	+	+		+
		C18H34O2	TR	100						+	+	+										+		+		+		+
			TR	120						+	+	+										+		+		+		+

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Chemical Resistance

Release Date: 2025-09-05

1574	phosphoric acid																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												</
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Chemical Resistance

Release Date: 2025-09-05

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

1575	oxalic acid	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		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	P		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		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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Chemical Resistance

Release Date: 2025-09-05

		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	
1579	palm kernel oil			20	+	+	+	+	+	+	+		+	+		+	+	+	+							+	+	+	
				40	-	+	+	+	+	+	+	+			+		+	0	+	+						+	+	+	
				60		0	0	0	+	+	+	+			0		0	-	+	+									
				80					+	+	+	+																	
				100					+	+	+	+																	
1582	p-toluenesulfonic acid	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						+	+										+	+				+			+
		wä	67% (GL)	20					+	+	+						-		+	+	+	+	+	+	+	+			+
		wä	67% (GL)	40					+	+	+								+	+	+	+	+	+	+	+			+
		wä	67% (GL)	60					+	+	+								+	+	+	+		+	+	+			+
		wä	67% (GL)	80					+	+	+								+	+	+	+		+	+	+			+
		wä	67% (GL)	100						+	+										+	+				+			+
1583	pentanol (mixture of isomers)		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: 2025-09-05

Condition	Concentration	Temperature [°C]	Material															
			PVC-U	PE	PP	PP-GF30	PVDF	PTFE	FEP, PFA	PA12	PSU	PEEK	HG1	NBR	EPDM	FKM = FPM	FFKM	SSiC
1584	perchloroethane	TR	20	-	0	0	0	+	+	+	+	+	+	+	+	+	+	+
		TR	40	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
		TR	60	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
		TR	80	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
		TR	100	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
1585	perchloric acid	wä	10%	20	+	+	+	+	+	+	+	-	-	+	-	-	0	+
		wä	10%	40	+	+	+	+	+	+	+	+	+	+	-	-	+	+
		wä	10%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	10%	80	-	-	-	-	+	+	+	+	+	+	+	+	+	+
		wä	10%	100	-	-	-	-	+	+	+	+	+	+	+	+	+	+
		wä	70%	20	0	0	0	0	+	+	+	-	-	0	-	-	0	+
		wä	70%	40	-	-	-	-	+	+	+	+	+	+	-	-	+	+
		wä	70%	60	-	-	-	-	+	+	+	+	+	+	+	+	+	+
		wä	70%	80	-	-	-	-	+	+	+	+	+	+	+	+	+	+
		wä	70%	100	-	-	-	-	+	+	+	+	+	+	+	+	+	+
1586	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: 2025-09-05

UBBE

Chemical Resistance

Release Date: 2025-09-05

		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
1588	phenol	wä	10%	20	+	+	+	+	+	+	+		-	+		-	+	+	+	+	+		+	+	+	+	+	+
		hydroxybenzene	wä	10%	40	0	+	+	+	+	+	+			+			+	+	+	+	+		+	+	+	+	+
			wä	10%	60	0	0	+	+	+	+	+			+			+	+	+	+	+		+	+	+	+	+
		C6H5OH	wä	10%	80					+	+	+						0	0	0	+	+		+	+	+	+	+
		C6H6O	wä	10%	100					+	+	+									+	+					+	+
			wä	90%	20	-	+	+	+	+	+	+			+		-	-	+	+	+	+		+	+	+	+	+
			wä	90%	40	-	+	+	+	+	+	+			+				0	0	+	+		+	+	+	+	+
			wä	90%	60	-	0	0	0	+	+	+			0				-	-	+	+		+	+	+	+	+
			wä	90%	80					+	+	+									+	+		+	+	+	+	+
			wä	90%	100					+	+	+									+	+					+	+
1590	phenylhydrazine		TR	20	-	0	0	0	+	+	+			0		-	0	+	+									
			TR	40					+	+	+								+	+								
		C6H5NHNH2	TR	60						+	+								0	0								
		C6H8N2	TR	80						+	+																	
			TR	100						+	+																	
1591	phosgene	gf	TR, GK	20	+	0	0	0	0	+	+			0		-	+	+	+									
		carbonyl dichloride	gf	TR, GK	40	0	0	0	0	0	+	+			0			+	+	+								
		carbonic acid dichloride	gf	TR, GK	60	0	0				+	+						+	0	0								
		COCl2	gf	TR, GK	80						+	+																
		CCl2O	gf	TR, GK	100						+	+																
1594	phosphine	gf	TR, GK	20	+				+	+	+		0			-	+	+	+									+
		phosphane	gf	TR, GK	40	+				+	+	+																
			gf	TR, GK	60						+	+																
		PH3	gf	TR, GK	80						+	+																
		H3P	gf	TR, GK	100						+	+																

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1595		phosphorus(III) chloride		TR	20	-	0	0	-	+	+	+	-	-	-	-	-	-	-	-	+	-	+	+	+	+	+	+
phosphorus trichloride				TR	40	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	+	-	+	+	+	+	+	+
PCI3				TR	60	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	+	-	+	+	+	+	+	+
CI3P				TR	80	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P						-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

1596		phosphorus(V) oxide		TR <td>20</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>-</td> <td>-</td> <td>+</td> <td>0</td> <td>+</td> <td>+</td> <td>+</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>	20	+	+	+	+	+	+	+	-	-	+	0	+	+	+	-	-	-	-	-	-	-	-
phosphorus pentoxide				TR	40	+	+	-	-	+	+	+	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-
				TR	60	-	-	-	-	+	+	+	-	-	-	-	+	+	+	-	-	-	-	-	-	-	
P4O10				TR	80	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
O10P4				TR	100	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

1597		phosphoryl chloride		TR <td>20</td> <td>-</td> <td>0</td> <td>0</td> <td>-</td> <td>+</td> <td>+</td> <td>+</td> <td>-</td> <td>-</td> <td>0</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>+</td> <td>-</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td> <td>+</td>	20	-	0	0	-	+	+	+	-	-	0	-	-	-	-	-	+	-	+	+	+	+	+
phosphoroxo chloride				TR	40	-	-	-	-	0	+	+	-	-	-	-	-	-	-	-	+	-	+	+	+	+	+
phosphoric acid trichloride				TR	60	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	-	+	+	+	+	+
POCl3				TR	80	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CI3OP				TR	100	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P						-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

1598		phthalic acid		wä	GL	20	+	+	+	+	+	+	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+
benzene-1,2-dicarboxylic acid				wä	GL	40	0	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+
				wä	GL	60	-	+	+	+	+	+	+	+	+	+	0	-	-	+	+	+	+	+	+	+	
C6H4(CO2H)2				wä	GL	80	-	-	-	-	+	+	+	+	+	+	-	-	-	+	-	+	+	+	+	+	
C8H6O4				wä	GL	100	-	-	-	-	+	+	+	+	+	+	-	-	-	+	-	+	+	+	+	+	
P						-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

1599		phthalic acid monopentyl ester		TR	20	-	+	+	+	-	+	+	-	+	-	-	-	-	+	+	-	+	+	+	+	+	+
monopentyl phthalate				TR	40	-	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	+	+	+	+	+	+
Monoamyl phthalate				TR	60	-	-	-	-	-	+	+	-	-	-	-	-	+	+	-	+	+	+	+	+	+	+
2-(HO2C)C6H4CO2CH2(CH2)3CH3				TR	80	-	-	-	-	-	+	+	-	-	-	-	-	+	-	+	+	+	+	+	+	+	+
C13H16O4				TR	100	-	-	-	-	-	+	+	-	-	-	-	-	+	-	+	+	+	+	+	+	+	+
P						-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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
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Chemical Resistance

Release Date: 2025-09-05

		Condition	Concentration	T Temperature [°C]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Chemical Resistance

Release Date: 2025-09-05

		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
1604	polyethylene glycol		TR	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+		+	+	+	+	+	+
			TR	40	+	+	+	+		+	+		+	+		+	+	+	+	+	+		+	+	+	+	+	+
			TR	60	+	+	+	+		+	+		+	+		+	+	+	+	+	+		+	+	+	+	+	+
			TR	80						+	+						+	+	+	+	+		+	+	+	+	+	+
			TR	100						+	+									+	+		+		+	+	+	+
			TR	120						+	+										+		+		+	+	+	+
1605	propane	gf	TR, GK	20	+	+	+	+	+	+	+		+	+		+	-	+	+									
		gf	TR, GK	40		+			+	+	+		+															
		gf	TR, GK	60					+	+	+		+															
		gf	TR, GK	80					+	+	+																	
		gf	TR, GK	100						+	+																	
1606	1-propanol		TR	20	+	+	+	+	+	+	+	-		+		0	+	+	+	+	+		+	+	+	+	+	+
			TR	40	0	+	+	+	+	+	+			+		0	+	+	+	+	+		+	+	+	+	+	+
			TR	60	0	+	+	+	+	+	+			+		-	+	+	+	+	+		+	+	+	+	+	+
			TR	80					0	+	+						0	0	0		+		+	+	+	+	+	+
			TR	100						+	+							-	-		+		+		+	+	+	+
1607	propargyl alcohol	wä	10%	20	+	+	+	+	+	+	+			+		+	+	+	+		+		+	+	+	+	+	+
		wä	10%	40	+	+	+	+	0	+	+			+		+	+	+	+		+		+	+	+	+	+	+
		wä	10%	60	+	+	+	+	0	+	+			+		+	+	+	+		+		+	+	+	+	+	+
		wä	10%	80						+	+										+					+	+	+
		wä	10%	100						+	+										+					+	+	+

Abbreviations: P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution
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1608		propionic acid	wä	50%	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
propanoic acid methylacetic acid CH3CH2CO2H C3H6O2			wä	50%	40	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+		
			wä	50%	60	0	+	+		+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	
			wä	50%	80						+	+	+										+		+	+			+	+	
			wä	50%	100							+	+										+						+	+	
				TR	20	0	+	+	+	+	+	+	+		+	+		-	+	-	0	+	+	+	+	+	+	+	+	+	+
				TR	40	-	0	0	0	0	+	+	+	+		-	0		+		0	+	+	+	+	+	+	+	+	+	+
				TR	60		0	0	0	0	+	+	+			0			0			+	+			+		+	+	+	+
				TR	80							+	+										+			+			+	+	+
				TR	100							+	+										+						+	+	+

1609		1,2-propanediol		50%	20	+	+	+	+		+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
1,2-propylene glycol CH3CH(OH)CH2OH C3H8O2				50%	40	+	+	+	+		+	+		+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+		
				50%	60	+	+	+	+		+	+		+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+
				50%	80						+	+							+	+	+	+	+	+	+			+	+	+	+
				50%	100						+	+										+	+					+	+	+	+
				TR	20	+	+	+	+		+	+		-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
				TR	40	+	+	+	+		+	+			+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+	+
				TR	60	+	+	+	+		+	+			+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
				TR	80						+	+							+	+	+	+	+	+	+			+	+	+	+
				TR	100							+	+									+	+					+	+	+	+
	TR	120							+	+										+					+	+	+	+	+		

1610		propylene oxide		TR	20	0	+	+	+	-	+	+			+		-	+	-	-											
1,2-epoxypropane propene oxide C3H6O																															

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Chemical Resistance

Release Date: 2025-09-05

		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	
C5H5N	pyridine		TR	20	-	+	0	0	+	+	+	-	0	0		-	+	-	-	+	+		+	+	+			+	
			TR	40	-	0	0	0	0	+	+	+		0	0		0	-	-	+	+		+	+				+	
			TR	60		0	0	0	-	+	+	+			0			-			+	+		+	+				+
			TR	80						+	+	+									+	+							+
			TR	100							+	+										+							
Hg	mercury		TR	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+			+	+	+	+	+	+	+
			TR	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+			+	+	+	+	+	+	+
			TR	60	+	+	+	+	+	+	+		+	+		+	+	+	+	+				+	+	+	+	+	+
			TR	80					+	+	+								+	+	+			+	+	+			
			TR	100					+	+	+										+			+		+			
			TR	120					+	+	+										+			+		+			
HgSO4 HgO4S	murcury(II) sulfate	wä	GL	20	+	+	+	+	+	+	+		+	+	+			+	+	+	+		+	+	+			+	
		wä	GL	40	+	+	+	+	+	+	+		+	+	+				+	+	+	+		+	+	+		+	
		wä	GL	60		+	+	+	+	+	+		+	+						+	+	+		+	+	+		+	
		wä	GL	80					+	+	+										+	+		+	+	+		+	
		wä	GL	100					+	+	+										+								
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						+	+										+	+						+	

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: 2025-09-05

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
1615	mercury(II) cyanide	wä	VL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		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	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1616	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	salicylic acid	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+
		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: 2025-09-05

1621		nitric acid		HNO3	P	Chemical Resistance																											
Condition	Concentration	T 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	+			+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+			+					
wä	10%	40	+			+	0	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		nitrous acid		HNO2	P	Chemical Resistance																											
Condition	Concentration	T 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	VL	20							+	+	+	-				0	+	+	+														
wä	VL	40							+	+	+					-	+	+	+														
wä	VL	60					+	+	+							+	+																
wä	VL	80					+	+	+																								
wä	VL	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: 2025-09-05

1623	hydrochloric acid																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</
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Abbreviations: P = permeation problems possible; fe = humid; fl = liquid; gf = gaseous; tr = dry; wä = aqueous solution
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Chemical Resistance

Release Date: 2025-09-05

JBBE		Chemical Resistance		Release Date: 2025-09-05																									
1625	oxygen	gf	TR, GK	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
O2		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			20	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+	+	+
soft soap				40	+	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			+	
				60	0	+	+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+			+	
				80					+	+	+								+	+	+		+	+				+	
				100					+	+	+							+										+	
1628	sulfur		TR	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+						+	+	+	+
S8			TR	40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+						+	+	+	+
			TR	60		+	+	+	+	+	+			+			+	+	+	+						+	+	+	+
			TR	80			+	+	+	+	+			+				+	+	+						+	+	+	+
			TR	100					+	+	+							+	+	+						+	+	+	+
1629	sulfur dioxide, gaseous	gf, fe	TR, GK	20	+	+	+	+	+	+	+		+	+		-	+	+	+	+							+	+	
SO2 O2S		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
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Chemical Resistance

Release Date: 2025-09-05

1632	sulfuric acid					+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	-	-	+			
H2SO4 H2O4S	P		wä	5%	20	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	-	+			
			wä	5%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+		
			wä	5%	60	0	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			+		
			wä	5%	80			+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+					
			wä	5%	100					+	+	+						-	+	+	+	+									
			wä	10%	20	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	-	-	+	
			wä	10%	40	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+		+		
			wä	10%	60	0	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			+		
			wä	10%	80			+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+					
			wä	10%	100					+	+	+						-	+	+	+	+									
			wä	20%	20	+	+	+	+	+	+	+		+	+	+	0	+	+	+	+	+	+	+	+	+	+	-	-	+	
			wä	20%	40	+	+	+	+	+	+	+		+	+	+	-	+	+	+	+	+	+	+	+	+	+		+		
			wä	20%	60	0	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			+		
			wä	20%	80			+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+					
			wä	20%	100					+	+	+						-			+	+									
			wä	40%	20	+	+	+	+	+	+	+	-	+	+	+	0	+	+	+	+	+	+	+	+	+	+	-	-	+	
			wä	40%	40	+	+	+	+	+	+	+		+	+	+	-	+	+	+	+	+	+	+	+	+	+		+		
			wä	40%	60	0	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+	+		+		
			wä	40%	80			+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+	+				
			wä	40%	100					+	+	+						-			+	+									
			wä	50%	20	+	+	+	+	+	+	+	-	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	-	-	+
			wä	50%	40	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+	+		+		
			wä	50%	60	0	+	+	+	+	+	+			+	+	0	+	+	+	+	+	+	+	+	+	+		+		
			wä	50%	80			+	+	+	+	+			+	+		-	+	+	+	+	+	+	+	+	+				
			wä	50%	100					+	+	+									+	+									
			wä	60%	20	+	+	+	+	+	+	+	-	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	-	-	+
			wä	60%	40	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	
			wä	60%	60	0	+	+	+	+	+	+			+	+		+	+	+	+	+	+	+	+	+	+		+	+	
	wä	60%	80			+	+	+	+	+			+	+		-	+	+	+	+	+	+	+	+	+						

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
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Chemical Resistance

Release Date: 2025-09-05

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
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	+	+	+	+	+	+	+
wä	96%	40	-	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+
wä	96%	60	+	+	+	+	0	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

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

1634	sulfur trioxide				gf	TR, GK	20	-	-	-	-	0	+	+			-		-	-	-		+																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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1635	hydrogen sulfide	wä	VL	20	+	+	+	+	+	+			+		-	+		+	+	+	+	+	+		
H2S		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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Chemical Resistance

Release Date: 2025-09-05

1636		sulfur dioxide, aqueous solution		wä	10% (GL)	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
sulfurous acid SO2 • xH2O ("H2SO3") O2S • xH2O ("H2O3S")				wä	< 10%	40	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	+	+		
				wä	< 10%	60	0	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	
				wä	< 10%	80			+	+	+	+	+	+	+	+	+	+	+					+						+	
				wä	< 10%	100						+	+	+										+						+	
1637		soap hydrous solution				20	+	+	+	+	+	+	+	+	+	+	+	+	+	+						+	+	+	+		
						40	+	+	+	+	+	+	+	+	+	+	+	+	+	+						+	+	+	+		
						60	0	+	+	+	+	+	+	+	+	+	+	+	+	+	+						+	+	+	+	
						80						+	+	+																	
						100					+	+	+																		
1638		silver acetate		wä	GL	20	+	+	+	+	+	+	+			+		+	+	+	+			+	+	+					
CH3CO2Ag C2H3AgO2				wä	GL	40	+	+	+	+	+	+	+			+		+	+	+	+			+	+	+					
				wä	GL	60	0	+	+	+	+	+	+	+			+		+	+	+	+			+	+	+				
				wä	GL	80						+	+	+												+	+	+			
				wä	GL	100						+	+	+																	
1639		silver chloride		wä	GL	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+			
AgCl				wä	GL	40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+		
				wä	GL	60	+	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	
				wä	GL	80			+	+	+	+	+	+			+			+	+	+	+	+	+	+	+			+	
				wä	GL	100						+	+	+							+	+	+	+	+					+	
1640		silver cyanide		wä	GL	20	+	+	+	+	+	+	+			+		+	+	+	+			+	+	+					
AgCN CAgN				wä	GL	40	+	+	+	+	+	+	+			+		+	+	+	+			+	+	+					
				wä	GL	60	0	+	+	+	+	+	+	+			+		+	+	+	+			+	+	+				
				wä	GL	80						+	+	+																	
				wä	GL	100							+	+																	

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Chemical Resistance

Release Date: 2025-09-05

1641		silver nitrate		wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
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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
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Chemical Resistance

Release Date: 2025-09-05

1646	spin bath acid with carbondisulfide			100mgCS2/L	20	+	+	+	+	+	+	+	0	+		-	+	+	+									
				100mgCS2/L	40	+	+	+	+	+	+	+		+														
				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	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+
(C6H10O5)n			wä	GL	80			+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+
C6H10O5			wä	GL	100					+	+	+						+	+	+	+	+				+	+	+

1650	starch sirup			H	20	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+
				H	40	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+
				H	60	0	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+
				H	80			+	+	+	+	+			+		+	+	+	+	+	+	+	+	+	+	+	+
				H	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
1652	stearic acid		TR	20	+	+	+	+	+	+	+		-	+		+	+	+	+	+	+		+	+	+	+	+	+
			TR	40	+	+	+	+	+	+	+			+		+	+	+	+	+	+		+	+	+	+	+	+
			TR	60	+	0	0	0	+	+	+			0		0	0	0	0		+		+	+	+	+	+	+
			TR	80					+	+	+										+		+	+		+	+	+
			TR	100					+	+	+										+							
			TR	120					+												+							
1653	stearic acid butyl ester		TR	20		+	+	+	+	+	+			+		+	+	+	+				+	+	+	+	+	+
			TR	40		+	+	+	+	+	+			+		+	+	+	+				+	+	+	+	+	+
			TR	60		0	0	0	+	+	+			0		0	0	0	0				+	+	+	+	+	+
			TR	80					+	+	+												+	+	+	+	+	+
			TR	100					+	+	+												+		+	+	+	+
			TR	120						+	+												+		+	+	+	+
1655	strontium chloride	wä	GL	20	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			
		wä	GL	40	+	+	+	+	+	+	+		+	+	+		+	+	+	+	+	+	+	+	+			
		wä	GL	60	0	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+			
		wä	GL	80			+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+			
		wä	GL	100					+	+	+									+	+							
1656	styrene		TR	20	-	0	0	0	-	+	+		-	0						+			+	+	+			
			TR	40	-	-	0	0	-	+	+			0						+			+	+	+			
			TR	60			-	-		+	+			-									+	+	+			
			TR	80						+	+												+	+	+			
			TR	100						+	+																	

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UBBE

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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
1657	sulfamic acid	wä	16% (GL)	20	+	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+	+			
	aminosulfuric acid	wä	16% (GL)	40	+	+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+				
	amidosulfonic acid	wä	16% (GL)	60		+	+	+	+	+	+		+	+			+	+	+	+	+	+	+	+				
	H2NSO3H	wä	16% (GL)	80			+	+	+	+	+		+	+			+	+	+	+	+	+	+	+				
	H3NO3S	wä	16% (GL)	100						+	+									+	+							
1658	SurTec 104 universal cleaner	wä	8%	20	+	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+	+	+	+	
		wä	8%	40	+	+	+	+	+	+	+			+			+	+	+	+	+	+	+	+	+	+		
		wä	8%	60	+	+	+	+	+	+	+			+			0	+	+	+	+	+	+	+	+	+		
		wä	8%	80						+	+									+	+		+	+	+	+		
		wä	8%	100						+	+									+	+		+		+	+		
1659	nitrogen	gf	TR, GK	20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+						+	+	
	N2	gf	TR, GK	40	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+					+	+	
		gf	TR, GK	60	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+					+	+	
		gf	TR, GK	80		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+					+	+	
		gf	TR, GK	100			+	+	+	+	+	+		+	+		+	+	+	+	+					+	+	
		gf	TR, GK	120					+	+	+	+					+	+	+	+	+					+	+	
1660	Tanigan® extra A			20	+					+	+		-			+	+	+	+									
			40							+	+					+	+	+	+									
			60							+	+																	
			80							+	+																	
			100							+	+																	

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[illegible]

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

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

Chemical Resistance

Release Date: 2025-09-05

				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		TR	20	-	-	-	-	+	+	+			-		-	-	-	-		+		+	+	+			
			TR	40					+	+	+										+		+	+	+			
			TR	60						+	+										+		+	+	+			
			TR	80						+	+										+		+	+	+			
			TR	100						+	+										+		+	+	+			
1670	1,1,2,2-tetrachloroethane		TR	20	-	0	0	0	0	+	+		-	0		-	-	-	-	+	+		+	+	+			
			TR	40					0	+	+		-							+			+	+	+			
			TR	60					0	+	+		-								+		+	+	+			
			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
1671	tetrachloroethylene		TR	20	-	0	0	0	+	+	+			0		0	-	0	0	+	+	+	+	+	+		-	
	tetrachloroethene		TR	40		0			+	+	+					-		0	0	+	+		+	+	+			
	perchloroethylene		TR	60		-	0	0	+	+	+			0				0	0	+	+		+	+	+			
	Cl2C=CCl2		TR	80					0	+	+									+	+		+	+	+			
	C2Cl4	P	TR	100					0	+	+									+	+		+		+			
1672	tetrachloromethane		TR	20	0	-	-	-	+	+	+	+	0	-		-	-	+	+	+	+		+	+	+	+	+	+
	carbon tetrachloride		TR	40	-				+	+	+	+						+	+	+	+		+	+	+	+	+	
			TR	60					0	+	+							+	+	+	+		+	+	+	+	+	
			TR	80						+	+										+		+	+	+			
	CCl4	P	TR	100						+	+										+		+		+			
1673	tetraethyllead		TR	20	+	+	+	+	+	+	+			+		0	0	+	+								+	
	lead tetraethyl		TR	40					+	+	+																	
	TEL		TR	60					+	+	+																	
	(C2H5)4Pb		TR	80					+	+	+																	
	C8H20Pb		TR	100					+	+	+																	
			TR	120					+	+	+																	
1674	tetrahydrofuran		TR	20	-	0	0	0	0	+	+	-	-	0	-	-	-	-	-	+	+		+	+	+	+	+	+
	THF		TR	40		-	-	-	-	+	+			-						+	+		+	+	+	+	+	
	oxolane		TR	60						+	+									+	+		+	+	+	+	+	
	C4H8O	P																										

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1675		1,2,3,4-tetrahydronaphthalene	Tetralin® C10H12		TR	20	-	0	-	-	-	-	-	-	-	-	-	-	+	+								
				TR	40															+	+							
				TR	60																+	+						
				TR	80																+	+						
				TR	100																+	+						
1676		thioglycolic acid	mercaptoacetic acid HSCH2CO2H C2H4O2S		TR	20	-	+	+	+				+		-												
				TR	40		+	+	+					+														
				TR	60		+	+	+					+														
				TR	80																							
				TR	100																							
1677		thionyl chloride	sulfurous acid dichloride SOCl2 Cl2OS P		TR	20	-	-	-	-	+	+	+	-	-	-	-	-	-	+	-	+		+				
				TR	40					0	+	+								+		+		+				
				TR	60					-	+	+								+		+		+				
				TR	80																							
1678		thiophene	C4H4S P		TR	20	-	0	0	0	+	+	+		0	0		-	-	-	+		+	+	+	+	+	
				TR	40		0	-	-		+	+				-				+		+	+	+	+	+	+	
				TR	60		-				+	+								+		+	+	+	+	+	+	
				TR	80						+	+								+		+	+	+	+	+	+	
1679		toluene	methylbenzene C6H5CH3 C7H8 P		TR	20	-	0	0	0	+	+	+		-	0		-	-	+	+	+	+	+	+	+	+	
				TR	40		0	-	-	+	+	+				-			0	+	+	+	+	+	+	+	+	
				TR	60		-			0	+	+								+	+		+	+	+	+	+	
				TR	80					0	+	+								+	+		+	+	+	+	+	
				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
1681	tributyl phosphate		TR	20	-	+	+	+	+	+	+			+		-	+	-	-				+	+	+			
	phosphoric acid tributyl ester		TR	40		+	+	+		+	+			+									+	+	+			
	TBP		TR	60		+	+	+		+	+			+									+	+	+			
	(C4H9O)3PO		TR	80						+	+												+	+	+			
	C12H27O4P		TR	100						+	+												+		+			
1682	trichloroacetaldehyde		TR	20	-	+	+	+	-	+	+			+		0	-	0	0									
	chloral		TR	40		+	+	+		+	+			+														
			TR	60		+	+	+		+	+			+														
	CCl3CHO		TR	80						+	+																	
	C2HCl3O		TR	100						+	+																	
1683	trichlorobenzene (mixture of isomers)		TR	20	-	-	-	-	-	+	+		-	-		-	-			+	+		+	+	+	+	+	+
			TR	40						+	+									+	+		+	+	+	+	+	+
			TR	60						+	+										+		+	+	+	+	+	+
			TR	80						+	+										+		+	+	+	+	+	+
	C6H3Cl3		TR	100						+	+										+		+		+	+	+	+
1684	trichloroacetic acid	wä	50%	20	+	+	+	+	+	+	+		0	+		-	0	-	-	+								+
		wä	50%	40	0	+	+	+	+	+	+			+						+								+
		wä	50%	60		+	+		0	+	+			+						+								+
	CCl3CO2H	wä	50%	80					-	+	+									+								+
	C2HCl3O2	wä	50%	100						+	+																	
1685	trichloroethylene		TR	20	-	-	0	0	+	+	+	-	-	0		-	-	0	0	+				+	+	+	+	+
	trichloroethene		TR	40					+	+	+									+				+	+	+	+	+
			TR	60					+	+	+									+				+	+	+	+	+
	ClCH=CCl2		TR	80					+	+	+									+				+	+	+	+	+
	C2HCl3	P																										

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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
1686	trichloronitromethane	20	+	-	-	-	-	+	+									
		40						+	+									
		60						+	+									
		80						+	+									
		100						+	+									
1687	triethanolamine	20	0	+	+	+	-	+	+			+		-	0	0	0	+
		40		+	+	+		+	+			+				-	-	+
		60		+	0	0		+	+			0						+
		80						+	+									+
		100						+	+									
1688	triethylene glycol	20		+	+	+		+	+			+						+
		40		+	+	+		+	+			+						+
		60		+	+	+		+	+			+						+
		80						+	+									+
		100						+	+									+
1689	trimethyl borate	20	-	+	0	0		+	+			0						
		40		0	-	-		+	+			-						
		60						+	+									
		80						+	+									
		100						+	+									
1690	trioctyl phosphate	20	-	0	+	+		+	+		-	+		0	-	-	-	
		40						+	+									
		60						+	+									
		80						+	+									
		100						+	+									

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Chemical Resistance

Release Date: 2025-09-05

JBBE

Chemical Resistance

Release Date: 2025-09-05

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	20	0	0	+	+	+	+	+		+	+		+	-	+	+							+	+	+		
		40	-	0	0	0	+	+	+		+	0		+		+	+							+	+	+		
		60		-	0	0	+	+	+			0				+	+											
		80					+	+	+							+	+											
		100					+	+	+							+	+											
		120					+	+	+							+	+											
1694	vaseline oil paraffin oil	20	+	+	+	+	+	+	+		+	+		+	-	+	+	+	+		+	+	+	+	+	+		
		40	+	+	+	+	+	+	+		+	+		+		+	+	+	+		+	+	+	+	+	+		
		60	0	+	0	0	+	+	+		+	0		0		+	+	+	+		+	+	+	+	+	+		
		80					+	+	+		0							+	+		+	+	+	+	+	+		
		100					+	+	+										+		+	+	+	+	+	+		
		120					+	+	+										+		+		+	+	+	+		
1695	vinyl acetate acetic acid vinyl ester CH3CO2CH=CH2 C4H6O2	20	-	+	+	+		+	+	-	-	+		-	-	-	-	+	+		+	+	+	+	+	+		
		40		+	0	0		+	+			0						+	+		+	+	+	+	+	+		
		60		0				+	+									+	+		+	+	+	+	+	+		

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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	
1696	vinyl chloride chloroethylene H2C=CHCl C2H3Cl	gf	TR, GK	20	-	0	-	-	+	+	+			-		-	+	+	0	+									
		gf	TR, GK	40		-			+	+	+							0	0	+									
		gf	TR, GK	60					+	+	+							0	0										
		gf	TR, GK	80					+	+	+																		
		gf	TR, GK	100					+	+	+																		
1697	viscose spinning solutions			20	+	+	+	+	+	+	+		-	+		-	+	+	+										
				40	+	+	+	+	+	+	+			+			+	+	+										
				60	+	+	+	+	+	+	+			+			+	+	+										
				80						+	+																		
				100						+	+																		
1698	1-tetracosanol wax alcohol lignoceryl alcohol CH3(CH2)22CH2OH C24H50O		TR	20	+	0	0	0	+	+	+		-	0		+	-	+	+				+	+	+				
			TR	40	+	0	0	0	+	+	+			0		+		+	+				+	+	+				
			TR	60	+	-	-	-	+	+	+			-		+		+	+				+	+	+				
			TR	80						+	+												+	+	+				
			TR	100						+	+													+		+			
1702	water, condensed condensed water H2O			20	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+		+	+	+				
				40	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+		+	+	+			
				60	0	+	+	+	+	+	+	+		+		+	0	+	+	+	+	+		+	+	+			
				80					+	+	+	-				0		+	+	+	+	+		+	+	+			
				100					+	+	+										+	+		+		+			
1703	water, seawater seawater			20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	0	0	+	
				40	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	0	0	+	
				60	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	-	-	+
				80			+	+	+	+	+	+	-		+			+	+	+	+	+	+	+	+	+			+
				100					+	+	+										+	+	+	+	+	+			+

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1704	water, mineral water	mineral water		20	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+			+		
				40	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+			+		
				60	+	+	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+	+	+			+	
				80			+	+	+	+	+	+	+	-		+			+	+	+	+	+	+	+	+			+	
				100					+	+	+	+	+								+	+	+	+	+				+	
1705	water, pure	pure water		20					+	+	+	+	+	+		+	+	+	+	+	+	+	+					+		
				40					+	+	+	+	+	+	+		+	+	+	+	+	+	+					+		
				60					+	+	+	+	+	+	+		+	+	+	+	+	+	+	+				+		
				80					+	+	+	+	-		+			0	+	+	+	+	+	+				+		
			H2O	100					+	+	+	+						-	+	+	+	+	+	+				+		
1706	water, traces of butanol and phenol			20	+	+	+	+	+	+	+	+		+		+	+	+	+	+	+	+		+	+	+				
				40	-				+	+	+	+					+	+	+	+	+	+	+		+	+	+			
				60					+	+	+	+					+	0	+	+	+	+	+		+	+	+			
				80					+	+	+	+	-				-		+	+	+	+	+		+	+	+			
				100					+	+	+	+									+	+	+	+	+		+			
1708	hydrogen	gf	TR, GK	20	+	+	+	+	+	+	+		+	+		+	+	+	+									+	+	
		gf	TR, GK	40	+	+	+	+	+	+	+		+	+		+	+	+	+									+	+	
		gf	TR, GK	60	+	+	+	+	+	+	+			+		+	+	+	+									+		
		gf	TR, GK	80			0	0	+	+	+			0		+	+	+	+									+		
		gf	TR, GK	100			-	-	+	+	+				-		+	+	+	+								+		
		gf	TR, GK	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
1709	hydrogen peroxide	wä	10%	20	+	+	+		+	+	+		+	+	-	0		+	+	+	+		+		+	-	-	
	hydrogen superoxide	wä	10%	40	+	+	+		+	+	+			+		-		+	+	+	+		+		+			
	HOOH H2O2	wä	10%	60	0	+	+			+	+	+			+				+	+	+	+		+		+		
		wä	10%	80						+	+	+									+	+		+		+		
		wä	10%	100						+	+	+									+	+		+		+		
		wä	30%	20	+	+	+			+	+	+		+	+	-	-		+	+	+	+		+		+	-	-
		wä	30%	40	0	0	0			+	+	+			0				+	+	+	+		+		+		
		wä	30%	60			0			+	+	+			0				0	0	+	+		+		+		
		wä	30%	80						+	+	+							-	-	+	+		+		+		
		wä	30%	100						+	+	+									+	+		+		+		
		wä	50%	20						+	+	+					-		+	+	+	+		+		+	-	-
		wä	50%	40						+	+	+							+	+	+	+		+		+		
		wä	50%	60							+	+																
		wä	50%	80							+	+																
		wä	50%	100							+	+																
		wä	90%	20		-	-	-		+	+	+			-	-	-		0	0							-	-
		wä	90%	40							+	+																
		wä	90%	60							+	+																
		wä	90%	80							+	+																
		wä	90%	100							+	+																
1710	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
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: 2025-09-05

Chemical Resistance				Material																						
Release Date: 2025-09-05				Material																						
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
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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+ = resistant; 0 = conditionally resistant; - = non-resistant

Chemical Resistance

Release Date: 2025-09-05

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
1716	zinc carbonate basic	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+
		wä	GL	60	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+
		wä	GL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1717	zinc chloride	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	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1718	zinc nitrate	wä	GL	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	40	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+
		wä	GL	60	0	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+
		wä	GL	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
		wä	GL	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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

Chemical Resistance

Release Date: 2025-09-05

		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
1719	zinc hydrogenphosphate	wä	GL	20		+	+	+	+	+	+	+			+	+	+	+	+	+			+	+	+			
		wä	GL	40		+	+	+	+	+	+	+			+	+	0	+	+	+	+			+	+			
		wä	GL	60		+	+	+	+	+	+	+			+		-	+	+	+	+			+	+			
		wä	GL	80						+	+	+									+			+	+			
		wä	GL	100						+	+	+									+			+	+			
1720	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	80			+	+	+	+	+	+			+			+	+	+	+	+	+	+	+	+	+	+
wä	GL	100						+	+	+									+	+	+	+		+	+	+		
1721	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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+ = resistant; 0 = conditionally resistant; - = non-resistant

Chemical Resistance

Release Date: 2025-09-05

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
1722	sugar sirup	H	20	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+
		H	40	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+
		H	60	0	+	+	+	+	+		+	+		+	+	+	+	+	+	+
		H	80			+	+	+	+			+		+	+	+	+	+	+	+
		H	100				+	+	+							+	+	+	+	+
1723	mixed acid: HNO3 12%, HF 5%	wä	20			-	+	+	+	-						+	+	+		-
		wä	40				+	+	+							+	+	+		
		wä	60				+	+	+							0	+	+		
		wä	80				+	+	+						-	0	+	+		
		wä	100					+	+									+		
1724	mixed acid: HNO3 20%, HF 5%	wä	20			-	+	+	+	-						+	+	+		-
		wä	40				+	+	+							+	+	+		
		wä	60				+	+	+							0	+	+		
		wä	80				+	+	+						-	0	+	+		
		wä	100					+	+									+		
1728	chloramine mixture: NaOCl + NH3	wä	x = 0,125	20	+			+	+	+						+	+	+	+	-
		wä	x = 0,125	40	+			+	+	+					-	-	-	+	+	+

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Chemical Resistance

Release Date: 2025-09-05

1729		chloramine mixture: NaOCl + (NH4)2SO4	wä	x = 0,7	20	-												-	0	+	+	+	-	+	+			+
			wä	x = 0,7	30					+	+								0	+	+	+	+	+			+	
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	+	+	+	+	+	+	+	+	+				+	+	+	+	+						
EDTA DiNa-salt			wä	8,2% (GL)	60		+	+	+	+	+	+	+	+				+	+	+	+	+						
Titriplex® III			wä	8,2% (GL)	80		+	+	+	+	+	+	+	+				+	+	+	+	+						
(NaO2CCH2)2NCH2CH2N(CH2CO2H)2			wä	8,2% (GL)	100						+	+									+	+						
C10H14N2Na2O8																												

1735		ethylenediaminetetraacetic acid tetrasodium salt	wä	10%	20						+	+						+	+	+	+	+					
			wä	10%	40						+	+						+	+	+	+	+					
EDTA TetraNa-salt			wä	10%	60						+	+						+	+	+	+	+					
			wä	10%	80						+	+						+	+	+	+	+					
(NaO2CCH2)2NCH2CH2N(CH2CO2Na)2			wä	10%	100						+	+									+	+					
C10H12N2Na4O8			wä	44% (GL)	20						+	+						+	+	+	+	+					
			wä	44% (GL)	40						+	+						+	+	+	+	+					
			wä	44% (GL)	60						+	+						+	+	+	+	+					
			wä	44% (GL)	80						+	+						+	+	+	+	+					
			wä	44% (GL)	100						+	+									+	+					

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Chemical Resistance

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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
1739	2-butanol		TR	20						+	+											+		+	+	+	+	+
			TR	40						+	+											+		+	+	+	+	+
			TR	60						+	+											+		+	+	+	+	+
			TR	80						+	+											+		+	+	+	+	+
			TR	100						+	+											+		+	+	+	+	+
																												</

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Chemical Resistance

Release Date: 2025-09-05

		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	
1763	ammonium iron(III) 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						+	+	+									+	+		+	+	+			+
1821	chlorine dioxide, neutral solution (pH 7)	wä	0,5%	20	0	-	-	-	+	+	+	-	-	-	-	-	-	0	+	+	+	-	+		+				
1955	N,N-dimethylacetamide		TR	20	-	-	-	-	-	+	+	-	-	-							+		+	+	+	+	+	+	
			TR	40						+	+										+		+	+	+	+	+	+	
			TR	60						+	+										+		+	+	+	+	+	+	
			TR	80						+	+										+					+	+	+	
			TR	100						+	+										+					+	+	+	
			TR	120						+	+										+					+	+	+	

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Release Date: 2025-09-05

		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
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					+	+	+						-	+	+	+	+		+	+	+	+	+	+
CH3(CH2)8CH3 C10H22			TR	40					+	+	+							+	+	+	+		+	+	+	+	+	+
			TR	60					+	+	+									+	+		+	+	+	+	+	+
			TR	80					+	+	+										+	+		+	+	+	+	+
			TR	100					+	+	+										+	+		+	+	+	+	+
			TR	120					+	+	+											+		+		+	+	+

2218	pivaloyl chloride		TR	20						+	+										+		+	+	+			
trimethylacetyl chloride			TR	40						+	+										+		+		+			
(CH3)3CCOCl C5H9ClO			TR	60						+	+										+		+		+			
			TR	80						+	+											+						
			TR	100						+	+										+							

2260	ethylene glycol monomethyl ether		TR	20						+	+		-				+	-	+	+	+		+	+	+	+	+	+
2-methoxyethanol			TR	40						+	+						+		+	+	+		+	+	+	+	+	+
methyl Cellosolve			TR	60						+	+								+	+			+	+	+	+	+	+
CH3OCH2CH2OH			TR	80						+	+										+		+	+	+	+	+	+
C3H8O2			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: 2025-09-05

Ar	2776	argon	gf	TR, GK	20	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			gf	TR, GK	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			gf	TR, GK	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			gf	TR, GK	80		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			gf	TR, GK	100			+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+
			gf	TR, GK	120					+	+	+					+	+	+	+	+	+	+	+	+	+	+

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

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