

The chemical resistance of ADEKA ULTRA SEAL

The following table shows resistance properties of ADEKA ULTRASEAL (KM, KC, KBA, MC, A-30 and A-50N) to various chemicals.

Unless otherwise specified, test samples were soaking in 100% concentrated or saturated solutions at room temperature.

Use this table as a guideline to determine suitability for product use. The table is the best estimation by the manufacturer of ADEKA Ultra Seal.

Chemical resistance of ADEKA ULTRA SEAL

	NOTE: Adeka products can be used even if the contaminant is rated "N" as long as the concentration of the contaminant is less than 10,000 ppm.		Natural Rubber	KM/KC/KBA	MC	P-201	A-30	A-50N
	Chemical	concentration/ temperature (wt%/deg)						
1	Acetaldehyde		F	F	N	N	N	N
2	Acetic acid	(10/RT)	F	F	F	N	F	N
3	Acetone		F	F	N	N	N	N
4	Acetylene		E	E	G	G	G	N
5	Alums NH ₃ ,Cr,K		E	E	E	E	E	E
6	Aluminum acetate		E	E	E	E	E	E
7	Aluminum bromide		E	E	E	E	E	E
8	Aluminum chloride		E	E	E	N	F	N
9	Aluminum fluoride		E	E	E	E	E	E
10	Aluminum nitrate		E	E	E	E	E	E
11	Aluminum sulfate		E	E	E	E	E	E
12	Ammonia gas		E	E	E	E	E	E
13	Ammonium carbonate		E	E	E	E	E	E
14	Ammonium chloride		E	E	E	F	F	F
15	Ammonium hydroxide		N	N	N	N	N	N
16	Ammonium persulfate		E	E	E	N	F	N
17	Ammonium phosphate		E	E	E	E	E	E
18	Ammonium sulfate		E	E	E	E	E	E
19	Amyl alcohol		E	E	G	G	G	G
20	Aniline dyes		G	G	F	N	N	N
21	Lard oil		G	G	N	F	F	N
22	Arsenic acid		E	E	E	F	F	F
23	Asphalt		G	G	N	G	G	N
24	ASTM oil NO.1		G	G	N	F	F	N
25	ASTM reference fuel A		F	F	N	F	F	N
26	Barium chloride		E	E	E	E	E	E
27	Barium hydroxide		E	E	E	E	E	E
28	Barium sulfate		E	E	E	E	E	E
29	Barium sulfide		E	E	E	E	E	E

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	Chemical	concentration/ temperature (wt%/deg)						
30	Benzene		F	F	N	N	N	N
31	Benzine		F	F	N	N	N	N
32	Benzyl alcohol		G	G	F	F	F	F
33	Boric acid		E	E	E	E	E	E
34	Butane		N	N	N	F	F	F
35	Butyl alcohol		E	E	G	N	F	N
36	Calcium acetate		E	E	G	E	E	E
37	Calcium bissulfite		E	E	E	E	E	E
38	Calcium chloride		E	E	E	E	E	E
39	Calcium hydroxide		E	E	E	E	E	E
40	Calcium hypochlorite		N	N	N	N	N	N
41	Calcium nitrate		E	E	E	E	E	E
42	Calcium sulfide		G	G	G	E	E	G
43	Carbon dioxide		G	G	G	E	E	G
44	Carbonic acid		N	N	N	N	N	N
45	Castor oil		E	E	G	G	G	F
46	Cellsolve		N	N	N	N	N	N
47	Cellsolve,Acetate		G	G	F	F	F	N
48	Cellsolve,Butyl		E	E	G	G	G	F
49	Chlorinated solvents		N	N	N	N	N	N
50	Chromic acid	(2/70)	N	N	N	N	N	N
51	Citric acid		E	E	G	G	G	F
52	Copper chloride		E	E	E	E	E	E
53	Copper cyanide		E	E	E	E	E	E
54	Copper sulfate		E	E	E	E	E	E
55	Corn oil		G	G	F	F	F	F
56	Cottonseed oil		G	G	F	F	F	F
57	Cresol		N	N	N	N	N	N
58	Cycrohexanone		F	F	N	N	N	N
59	Developing solutions(Hypos)		E	E	E	E	E	E
60	Dibutyl phthalate		N	N	N	F	F	F
61	Diesel Fuel		G	G	N	F	F	N
62	Diethylene glycol		E	E	G	N	N	N
63	Diisopropyl ketone		F	F	N	N	N	N
64	Dimethyl formamide		G	G	F	N	N	N
65	Diocetyl phthalate		F	F	N	G	G	F
66	Dioxane		N	N	N	N	N	N
67	Ethanolamine		G	G	F	F	F	F
68	Ethyl acetate		F	F	N	N	N	N
69	Ethyl aceetoacetate		E	E	G	G	G	F
70	Ethyl alcohol (Ethanol)		E	E	G	G	G	G
71	Ethyl cellulose		G	G	G	G	G	F

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	Chemical	concentration/ temperature (wt%/deg)						
72	Ethyl chloride		E	E	G	G	G	F
73	Ethyl chlorohydrin		G	G	F	F	F	F
74	Ethylene diamine		E	E	G	G	G	F
75	Ethylene glycol		E	E	G	G	G	F
76	Ethyl oxalate		E	E	G	G	G	F
77	Ethyl silicate		G	G	F	F	F	F
78	Fatty acid		F	F	N	F	F	N
79	Ferric chloride		E	E	E	E	E	E
80	Ferric sulfate		E	E	E	E	E	E
81	Fluorboric acid		E	E	E	E	E	E
82	Fluosilicic acid		E	E	E	E	E	E
83	Formaldehyde	(40/RT)	G	G	F	N	N	N
84	Formic acid	(25/RT)	F	F	N	N	N	N
85	Fuel oil		F	F	N	F	F	N
86	Gasoline		F	F	N	F	F	N
87	Gelatin		E	E	G	E	E	G
88	Galuber's salt		E	E	E	E	E	E
89	Glycerin		E	E	E	E	E	E
90	Hexane		N	N	N	F	F	N
91	Hexyl alcohol		E	E	G	N	N	N
92	Hydrobromic acid	(37/RT)	E	E	E	N	N	N
93	Hydrochloric acid	(3/RT)	E	E	E	E	E	G
94	Hydrochloric acid	(10/RT)	F	F	N	N	F	N
95	Hydrogen		G	G	G	E	E	G
96	Hydrogen peroxide	(5/RT)	N	N	N	N	N	N
97	Hydrogen sulfide		N	N	N	N	N	N
98	Hydroquinone		E	E	G	G	G	G
99	Hydrochlorus acid		E	E	E	E	E	E
100	Isobutyl alcohol		E	E	G	N	N	N
101	Isopropyl alcohol		E	E	F	F	F	N
102	Jet Fuel		F	F	N	F	F	N
103	Lacquer		N	N	N	N	N	N
104	Lactic acid		E	E	G	G	G	G
105	Lead acetate		E	E	E	E	E	E
106	Lead nitrate		E	E	E	E	E	E
107	Lead sulfamate		G	G	G	G	G	G
108	Linseed oil		G	G	F	G	G	F
109	Liquifide petroleum gas		F	F	N	F	F	N
110	Lubricating oil		F	F	N	F	F	F
111	Magnesium chloride		E	E	E	E	E	E
112	Magnesium hyroxide		E	E	E	E	E	E
113	Magnesium sulfate		E	E	E	E	E	E

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	Chemical	concentration/ temperature (wt%/deg)						
114	Maleic acid		E	E	G	G	G	F
115	Malic acid		E	E	G	G	G	F
116	Mercuric chloride		E	E	E	E	E	E
117	Mercury		E	E	E	E	E	E
118	Methyl alcohol		E	E	G	G	G	F
119	Methyl ethyl ketone		F	F	N	N	N	N
120	Mineral oil		F	F	N	F	F	N
121	Monoethanolamine		G	G	F	F	F	N
122	Motor Oil		F	F	N	F	F	F
123	Naptha		F	F	N	F	F	N
124	Natural gas		G	G	G	G	G	G
125	Nickel acetate		E	E	E	E	E	E
126	Nickel chloride		E	E	E	E	E	E
127	Nikkel sulfate		E	E	E	E	E	E
128	Nitric acid	(10/RT)	N	N	N	N	N	N
129	Nitroethane		E	E	G	N	N	N
130	Nitromethane		E	E	G	F	F	F
131	Nitrogen		E	E	E	E	E	E
132	Octyl alcohol		G	G	F	N	N	N
133	Oleic acid		F	F	N	F	F	F
134	Oleive oil		F	F	N	F	F	F
135	Oxalic acid		G	G	F	F	F	N
136	Oxygen		G	G	G	E	E	G
137	Ozone		N	N	N	F	F	F
138	Palmitic acid		G	G	F	G	G	F
139	Petroleum		F	F	N	N	N	N
140	Phenyl hydrazine		E	E	G	G	G	G
141	Phenol		F	F	N	N	N	N
142	Phosphoric acid	(50/RT)	E	E	E	E	E	E
143	Potassium chloride		E	E	E	E	E	E
144	Potassium cyanide		E	E	E	E	E	E
145	Potassium dichlomite	(10/RT)	E	E	E	E	E	E
146	Potassium hydroxide		E	G	G	G	G	G
147	Potassium permanganate	(5/RT)	N	N	N	N	N	N
148	Potassium sulfate		E	E	E	E	E	E
149	Propane		N	N	N	F	F	F
150	Propyl alcohol		E	E	G	F	F	F
151	Propylene Glycol		E	E	G	G	G	G
152	Pyridine		N	N	N	N	N	N
153	Salicylic acid		E	E	G	G	G	G
154	Salt water		E	E	E	E	E	E
155	Silicon greases		E	E	G	E	E	G

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	Chemical	concentration/ temperature (wt%/deg)						
156	Silicon oil		E	E	G	E	E	G
157	Silver ritrate		E	E	E	E	E	E
158	Soap solutions		E	E	E	E	E	E
159	Soda ash		E	E	E	E	E	E
160	Sodium bicaarbonate		E	E	E	E	E	E
161	Sodium bisulfate		E	E	E	E	E	E
162	Sodium bisulfite		E	E	E	E	E	E
163	Sodium borate		E	E	E	E	E	E
164	Sodium chloride		E	E	E	E	E	E
165	Sodium cyanide		E	E	E	E	E	E
166	Sodium hydroxide	(10/RT)	E	G	G	F	F	N
167	Sodium hydroxide	(30/RT)	E	G	G	N	F	N
168	Sodium hypochlorite	(5/RT)	F	F	F	N	N	N
169	Sodium metaphosphate		E	E	E	E	E	E
170	Sodium nitrate		E	E	E	E	E	E
171	Sodium perborate		E	E	E	E	E	E
172	Sodium peroxide		E	E	E	N	N	N
173	Sodium phosphate		E	E	E	E	E	E
174	Sodium thiosulfate		E	E	E	E	E	E
175	Sodium sulfide		E	E	E	E	E	E
176	Soybean oil		G	G	F	F	F	F
177	Stannic chloride		E	E	E	E	E	E
178	Stearic acid		G	G	F	G	G	F
179	Sulfur		G	G	G	G	G	G
180	Sulfur dioxide		G	G	G	G	G	G
181	Sulfurric acid	(3/RT)	E	E	E	G	G	G
182	Sulfurric acid	(10/RT)	E	G	N	N	F	N
183	Sulfurous acid	(10/RT)	G	G	G	N	F	N
184	Tannic acid		E	E	G	G	G	F
185	Tar		G	G	N	F	F	F
186	Tartaric acid		E	E	G	G	G	F
187	Toluene		F	F	N	F	F	N
188	Transformer Oil		N	N	N	F	F	F
189	Tributyl phosphate		G	G	F	N	N	N
190	Triethanolamine		E	E	G	N	N	N
191	Vegitabule oil		G	G	F	F	F	F
192	Water		E	E	E	E	E	E
193	Xylene		F	F	N	F	F	N
194	Zinc acetate		E	E	E	E	E	E
195	Zinc chloride		E	E	E	E	E	E
196	Zinc sulfat		E	E	E	E	E	E

Chemical	<p>NOTE: Adeka products can be used even if the contaminant is rated "N" as long as the concentration of the contaminant is less than 10,000 ppm.</p>	<p>concentration/ temperature (wt%/deg)</p>	<p>Natural Rubber</p>	<p>KM/KC/KBA</p>	<p>MC</p>	<p>P-201</p>	<p>A-30</p>	<p>A-50N</p>
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We determined chemical resistance for inorganic chemicals by change of sample's surfaces, rate of soaking water and change of physical properties.

- E: Excellent Service
- G: Good Service
- F: Fair Service
- N: Not Recommended/Poor