■Table of Hose Chemical Resistance

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NO.	Material	Nylon 12	PFA	SUS304	SUS316
1	ASTM Oil No.1	B	-	A	A
2	ASTM Oil No.2	B	-	A	A
3	ASTM Oil No.3	B	-	A	A
4	Acrylonitrile	A	B	A	A
5	Acetylene	B	A	A	A
6	Acetaldehyde	B	B	A	A
7	Acetophenone	-	A	B	B
8	Acetone	B	A	B	B
9	Aniline	C	A	B	B
10	Aniline dye	-	-	-	A
11	Amyl alcohol (Pentanol)	B	B	B	B
12	Anhydrous ammonia	A	A	A	A
13	Ammonia gas (Hot)	-	B	B	B
14	Ammonia gas (Cold)	-	B	B	B
15	Sulfur	B	A	B	B
16	Isooctane	B	B	A	A
17	Isobutyl alcohol	-	B	A	A
18	Isopropyl acetate	-	A	-	A
19	Isopropyl alcohol (Propanol)	B	A	A	A
20	Isopropyl Ether	-	B	A	A
21	Ethyl Alcohol (Etanol)	B	A	A	A
22	Ethyl ether (Ether) → Diethyl ether	B	A	B	B
23	Ethyl cellulose	-	A	B	B
24	Ethylbenzene	-	B	B	B
25	Ethylene oxide (Epoxy ethane)	B	A	B	B
26	Ethylene glycol	B	A	A	A
27	Ethylene chlorohydrin	-	B	B	B
28	Ethylenediamine	A	A	A	A
29	Octanol	-	A	A	A
30	Ozone	C	A	A	A
31	Oleic acid	B	-	B	B
32	Gasoline	B	-	A	A
33	Caustic soda (10%20℃)	B	A	A	A
34	Caustic soda (30%20℃)	B	A	A	A
35	Caustic soda (30%70℃)	C	C	B	B
36	Xylene	B	A	A	A
37	Formic acid (25%20℃)	C	A	B	×
38	Formic acid (50%20℃)	C	A	B	×
39	Formic acid (90%20℃)	×	A	C	×
40	Citric acid	B	A	A	A
41	Glycerin	B	A	A	A
42	Glucose	B	A	A	A
43	Cresol	×	A	C	A
44	Chromic acid (10%70℃)	×	B	C	C

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45	Chromic acid (2%50℃)	×	B	C	C
46	Chromic acid (2%70℃)	×	B	C	C
47	Chromic acid (25%70℃)	×	B	×	C
48	Chlorosulfuric acid	×	A	×	C
49	Chlorobenzene	C	-	-	-
50	Chloroform	×	A	B	B
51	Chloroacetic acid	×	B	-	-
52	Sodium silicate	B	-	-	B
53	Kerosene	B	A	A	A
54	Salicylic acid	B	A	B	B
55	Diacetone alcohol	B	A	A	A
56	Sodium cyanide	-	A	B	B
57	Hydrocyanic acid	-	A	A	A
58	Copper cyanide	-	A	B	B
59	Diethanolamine	B	-	-	A
60	Diethyl ether (Ethyl ether, ether)	B	A	B	B
61	Cyclohexanol	A	B	B	B
62	Cyclohexanone	A	A	B	B
63	Cyclohexane	B	A	B	B
64	Dichlorobenzene	-	A	-	-
65	Diphenyl	B	-	B	B
66	Dibutyl ether	-	A	B	B
67	Dibenzyl ether	-	C	B	B
68	Dimethylformamide (DMF)	B	C	-	A
69	Oxalic acid	B	A	C	-
70	Silicone oil	A	-	-	-
71	Styrene	B	B	A	B
72	Stearic acid	A	A	B	B
73	Cellosolve	-	B	B	B
74	Soda ash → Sodium carbonate	A	A	A	A
75	Dowtherm A	-	-	C	B
76	Tannic acid	-	A	C	C
77	Sodium thiosulfate	A	A	-	B
78	Decalin	A	-	-	-
79	Tetrachloroethane	-	B	A	A
80	Tetrahydrofuran	A	B	-	A
81	Tetralin (Tetrahydronaphthalinane)	B	-	A	A
82	Turpentine oil	B	-	B	A
83	Corn oil	-	-	-	A
84	Triethanolamine (TEA)	B	B	A	A
85	Trichloroethylene (Trichlene)	C	A	B	B
86	Trichloroacetic acid	-	A	C	C
87	Tributyl phosphate (TBP)	B	-	-	B
88	Toluene	B	A	A	A

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89	Naphtha	B	A	A	A
90	Naphthalene	A	A	A	A
91	Glue	-	A	-	C
92	Nitrobenzene	C	A	B	B
93	Nitromethane	A	B	A	A
94	Perchloroethylene	C	A	-	C
95	Pine oil	B	-	B	A
96	Palmitic acid	-	A	B	B
97	Bunker oil	-	-	-	B
98	Picric acid (2,4,6-trinitrophenol)	C	B	C	C
99	Castor oil	-	A	A	A
100	Pyridine	C	A	-	C
101	Phenol (Carbolic acid)	×	A	B	B
102	Butane	B	A	A	A
103	Butyl cellosolve	B	-	-	C
104	Aluminum fluoride	-	A	×	×
105	Fluorine (liquid)	×	×	×	C
106	Furan (Furfuran)	-	-	-	A
107	Furfural	B	B	B	B
108	Freon 11	B	B	A	A
109	Freon 113	B	B	A	A
110	Freon 114	B	B	A	A
111	Freon 115	B	B	-	-
112	Freon 12	B	B	A	A
113	Freon 13	B	B	-	-
114	Freon 13B1	-	B	-	-
115	Freon 14	-	B	-	-
116	Freon 21	B	-	A	A
117	Freon 22	B	B	A	A
118	Propane	B	A	A	A
119	Propyl alcohol (Propanol)	-	A	A	A
120	Hexane	A	A	A	A
121	Heptane	A	A	A	A
122	Helium	A	A	-	-
123	Benzyl alcohol	C	A	C	C
124	Benzyl chloride	-	A	B	B
125	Benzine	A	-	A	A
126	Benzaldehyde	B	A	C	C
127	Benzene (Benzol)	B	A	B	B
128	Pentane	-	-	-	B
129	Borax (Sodium tetraborate)	B	A	-	B
130	Formaldehyde	B	A	A	A
131	Maleic acid	-	A	C	C
132	Methyl methacrylate	-	A	B	B

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NO.	Material	Nylon 12	PFA	SUS304	SUS316
133	Sodium metaphosphate	-	A	-	C
134	Methane	A	A	-	C
135	Methyl alcohol (Metanol)	B	A	A	A
136	Methyl isobutyl ketone (MIBK)	-	A	B	B
137	Methyl isopropyl ketone	-	-	-	A
138	Butanone (Methyl ethyl ketone)	B	A	B	B
139	Methyl cellosolve	-	A	-	-
140	Mercaptan (Thiol, thioalcohol)	B	A	B	B
141	Monoethanolamine	-	B	-	C
142	Monochlorobenzene (Chlorobenzene)	C	-	-	-
143	Monochloroacetic acid	×	B	-	-
144	Lard	B	A	A	C
145	Flaxseed oil	B	-	A	A
146	Sulfurous acid	-	A	C	B
147	Sulfurous acid gas (Sulfur dioxide)	B	A	A	A
148	Sodium sulfite	B	A	B	B
149	Benzoic acid	B	A	C	C
150	Carbon monoxide	-	A	A	A
151	Nitruous oxide	-	A	B	B
152	Liquid ammonia	B	A	B	B
153	Acetyl chloride	-	-	-	C
154	Aluminum chloride	-	A	×	×
155	Ammonium chloride	B	A	C	C
156	Sulfur chloride	-	-	C	C
157	Ethyl chloride (Chloroethane)	-	B	A	A
158	Potassium chloride	B	A	B	A
159	Calcium chloride	A	A	B	B
160	Thionyl chloride	×	B	-	-
161	Sodium chloride	B	-	C	C
162	Nickel chloride	B	A	C	B
163	Barium chloride	A	A	×	B
164	Benzyl chloride	-	A	B	B
165	Magnesium chloride	A	A	C	B
166	Methyl chloride	B	B	A	A
167	Zinc chloride	B	A	×	B
168	Mercuric chloride	-	A	×	×
169	Ferric chloride	B	A	×	×
170	Copper chloride	B	A	C	C
171	Hydrochloric acid (10%20℃)	A	A	×	×
172	Hydrochloric acid (20%20℃)	C	A	×	×
173	Hydrochloric acid (20%80℃)	×	B	×	×
174	Hydrochloric acid (37%20℃)	×	A	×	×
175	Salt water	B	A	B	B
176	Chlorine	-	-	×	×

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177	Aqua regia	-	A	×	×
178	Potassium permanganate	×	A	B	B
179	Perchloric acid	-	-	×	×
180	Sodium peroxide	-	A	B	B
181	Hydrogen peroxide (30%20℃)	B	A	B	B
182	Hydrogen peroxide (5%20℃)	A	A	B	B
183	Hydrogen peroxide (5%50℃)	B	A	B	B
184	Seawater	B	A	B	B
185	Air	A	A	A	A
186	Diesel fuel	B	-	-	A
187	Sulfur trioxide	-	A	C	C
188	Oxygen	A	A	A	A
189	Ethane tetrachloride	-	B	A	A
190	Carbon tetrachloride	×	A	B	A
191	Fatty acid	A	A	B	A
192	Hypochlorous acid	-	-	-	C
193	Calcium hypochlorite	-	A	-	C
194	Sodium hypochlorite (5%20℃)	-	A	×	C
195	Sodium hypochlorite (5%70℃)	-	-	×	C
196	Tartaric acid	B	A	B	C
197	Methyl bromide	B	-	-	A
198	Hydrobromic acid (20%20℃)	-	A	×	×
199	Hydrobromic acid (40%20℃)	-	A	×	×
200	Bromine	×	A	×	×
201	Potassium dichromate	C	-	-	C
202	Calcium bisulphite	-	A	C	B
203	Sodium bicarbonate	B	A	A	A
204	Sodium bisulfate	B	-	C	C
205	Lubricant (Diester)	B	-	A	A
206	Lubricant (Petroleum)	B	-	A	A
207	Nitric acid (10%20℃)	×	A	A	A
208	Nitric acid (10%70℃)	×	A	B	A
209	Nitric acid (30%20℃)	×	A	B	A
210	Nitric acid (30%70℃)	×	A	B	A
211	Nitic acid (61%20℃) (Concentrated)	×	A	B	A
212	Aluminum nitrate	-	A	C	B
213	Ammonium nitrate	B	A	A	A
214	Potassium nitrate	A	A	C	C
215	Sodium nitrate	B	A	B	A
216	Silver nitrate	-	A	C	B
217	Salt	B	-	C	C
218	Acetic acid	B	A	A	A
219	Acetic acid (Acetic anhydride)	C	B	×	×
220	Amyl acetate	A	-	-	B

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NO.	Material	Nylon 12	PFA	SUS304	SUS316
221	Aluminium acetate	-	-	C	B
222	Isopropyl acetate	-	A	-	A
223	Ethyl acetate	A	A	B	B
224	Calcium acetate	-	A	B	B
225	Nickel acetate	-	A	B	B
226	Butyl acetate	A	A	B	B
227	Propyl acetate	-	A	-	A
228	Methyl acetate	B	A	B	B
229	Zinc acetate	-	-	-	A
230	Lead acetate	B	-	B	B
231	Water	A	A	B	B
232	Mercury	A	B	A	A
233	Aluminium hydroxide	-	A	-	-
234	Ammonium hydroxide	-	A	B	B
235	Potassium hydroxide (Caustic potash)	B	A	C	C
236	Calcium hydroxide (Lime hydrate)	-	A	C	B
237	Barium hydroxide	-	A	B	A
238	Magnesium hydrocide	A	A	B	B
239	Water vapor (204℃～260℃)	-	C	-	-
240	Water vapor (below 204℃)	-	-	-	B
241	Hydrogen	B	A	A	A
242	Soapy water	A	A	A	A
243	Carbonic acid	-	A	B	B
244	Ammonium carbonate	A	A	B	B
245	Sodium carbonate (Soda ash)	A	A	A	A
246	Nitrogen	B	A	A	A
247	Natural gas	B	-	A	A
248	Animal oil (Lard)	B	A	A	C
249	Animal oil	-	A	B	B
250	Methylene dichloride	-	B	B	B
251	Chlorine dioxide	-	A	-	-
252	Carbon dioxide (Carbonic acid gas)	-	A	B	B
253	Carbon bisulfide	B	B	A	A
254	Lactic acid (Low temperature)	B	A	×	A
255	Acetic anhydride	C	B	×	×
256	Alum (Potassium aluminum sulfate)	A	-	-	-
257	Cottonseed oil	B	A	B	B
258	Calcium sulfide	-	A	B	B
259	Sodium sulfide	B	A	C	C
260	Barium sulfide	-	A	-	B
261	Zinc sulfide	B	A	A	A
262	Hydrogen sulfide	A	A	B	B
263	Sulfuric acid (10%20℃)	B	A	C	B
264	Sulfuric acid (10%70℃)	×	A	×	C

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NO.	Material	Nylon 12	PFA	SUS304	SUS316
265	Sulfuric acid (20%)	B	A	C	B
266	Sulfuric acid (30%20℃)	C	A	C	B
267	Sulfuric acid (30%70℃)	×	B	×	C
268	Sulfuric acid (Concentrated, 20℃)	×	A	×	×
269	Sulfuric acid (Smoke emiting)	×	A	B	B
270	Aluminum sulfate	B	-	×	B
271	Ammonia sulfate	B	A	B	B
272	Potassium sulfate	B	A	C	C
273	Sodium sulfate	B	-	B	B
274	Nickel sulfate	-	A	B	B
275	Barium sulfate	-	A	B	B
276	Magnesium sulfate	-	A	B	B
277	Ferric sulfate	-	-	A	C
278	Copper sulfate (50%)	B	-	B	B
279	Phosphoric acid (45%)	B	A	B	B
280	Phosphoric acid (Concentrated)	-	A	×	B
281	Ammonium phosphate	B	A	B	B
282	Sodium phosphate	-	A	C	C
283	Boric acid	-	A	B	B

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