Chemical Compatibility Chart

Ratings -- Chemical Effect
A = Excellent.
B = Good -- Minor Effect, slight corrosion or discoloration.
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All data are based on ambient or room temperature conditions, about 64° F (18° C) to 73° F (23° C).

Explanation of Footnote
1. Satisfactory to 120°F (48° C)

	304 Stainless Steel	316 Stainless Steel	ABS Plastic	Acetal (Delrin), POM	Acrylic (PMMA)	Aluminum	Brass	Bronze	Buna N (Nitrile)	Cast Iron	Copper	CPVC	EPDM	Hastelloy® - C	Hytrel® (TPE)	Kel-F® (PCTFE)	HDPE	LDPE	Natural Rubber	Neoprene (CR)	Noryl® (PPO)	Nylon (PA)	Polycarbonate (PC)	Polypropylene (PP)	PTFE	PVC	PVDF (Kynar®)	Silicone (VMQ)	Titanium	Tygon	Viton® (FKM)
Acetaldehyde	A	A	D	A	C	B	A	A	D	C	C	D	A	A	B	A	C	C	C	C	N/A	A	C	A	A	D	D	A	A	D	D
Acetamide	B	A	A	A	B	A	D	D	A	D	N/A	A	A	A	N/A	A	A	A	D	B	N/A	A	D	A	A	D	C	B	N/A	D	B
Acetate Solvents	A	A	N/A	A	D	A	A	C	C	D	A	C	A	A	N/A	A	A	A	C	D	D	A	N/A	B	A	D	A	C	A	D	D
Acetic Acid	D	B	D	D	C	B	D	C	C	D	B	C	A	A	A	A	A	A	B	C	A	D	B	B	A	D	C	C	A	D	B
Acetic Acid, 20%	B	A	C	C	C	B	D	C	B	D	B	A	A	A	A	A	A	A	B	A	A	D	A	A	A	D	A	B	A	D	B
Acetic Acid, 80%	D	B	D	D	D	B	D	C	C	D	B	C	A	A	A	A	A	D	C	C	A	D	B	A	A	C	C	B	A	D	B
Acetic Acid, Glacial	C	A	D	D	D	B	D	C	C	D	B	B	B	A	A	A	A	D	C	D	A	B	B	A	A	D	A	B	A	D	D
Acetic Anhydride	B	A	C	D	D	A	D	C	D	D	B	D	B	A	C	A	C	D	C	A	D	A	D	B	A	D	B	C	A	D	D
Acetone	A	A	D	A	D	A	A	A	D	A	A	D	A	A	B	A	D	B	C	C	D	A	D	A	A	D	D	D	A	D	D
Acetylene	A	A	N/A	A	A	A	B	C	B	A	D	C	A	N/A	A	A	B	D	B	B	N/A	A	D	A	A	A	A	B	N/A	A	A
Acrylonitrile	A	A	D	N/A	B	B	A	A	D	A	A	A	D	B	N/A	N/A	A	A	B	C	N/A	A	D	A	A	B	A	D	N/A	N/A	D
Alcohols: Amyl	A	A	A	A	C	B	A	A	B	B	A	A	A	A	A	A	A	B[1]	B	A	C	A	B	B	A	A	A	D	B	D	A
Alcohols: Benzyl	B	B	D	A	D	B	B	A	D	B	B	A	B	A	N/A	A	B	D	D	C	D	B	D	A	A	D	A	N/A	A	D	A
Alcohols: Butyl	A	A	D	A	C	B	A	A	A	N/A	B	A	A	B	B	A	B	B[1]	A	A	A	B	B	A	A	C	A	B	B	B	A
Alcohols: Ethyl	A	A	B	A	C	B	A	A	C	B	A	B	A	A	D	A	A	B	A	A	A	A	B[1]	A	A	C	A	B	A	C	A
Alcohols: Isobutyl	A	A	B	A	C	B	B	A	B	C	N/A	N/A	A	A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A
Alcohols: Isopropyl	B	B	D	A	A	B	B	A	B	A	B	C	A	A	A	A	A	A[1]	A	B	A	D	A[1]	A[1]	A	A	A	A	B	A	A
Alcohols: Methyl	A	A	D	A	C	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A	A	B	B	A[1]	A	A	A	A	B	A	C
Alcohols: Propyl (1-Propanol)	A	A	B	A	B	A	A	A	A	A	A	A	A	A	N/A	A	B	A[1]	A	A	A	D	A	A	A	A	A[1]	A	A	A	A
Aluminum Fluoride	D	D	A	C	C	B	D	D	A	D	D	A	A	B	N/A	N/A	A	A[1]	B	A	A	A	N/A	A	A	A	A	B	A	A	A
Aluminum Hydroxide	A	C	B	A	A	B	B	C	A	A	D	A	A	B	N/A	A	A	A[1]	D	A	A	A	B	A	A	A	A	N/A	B	A	A
Aluminum Nitrate	A	A	A[1]	B	B	D	D	N/A	A	N/A	D	A	A	N/A	N/A	A	A	A[1]	A	A	N/A	A	A	A[1]	A	B	A	B	A	B	A
Aluminum Sulfate, 10%	B	B[1]	A	B	B	B	B	B	A	D	A	A	A	B	B	A	A	A[1]	A	A	A	A[1]	A	A	A	A	A	A	A	A	A
Alums	N/A	A	A[1]	C	B	A	D	N/A	A	D	C	A	A	B	D	A	A	A	A	B	N/A	A	N/A	A	A	N/A	N/A	A	A	N/A	A
Amines	A	A	N/A	D	D	B	B	D	D	D	N/A	D	B	B	A	A	B	C	B	B	D	D	D	B[1]	A	D	N/A	B	B	D	D
Ammonia, 10% (Ammonium Hydroxide)	A	A	B	C	A	A	D	D	A	A	D	A	A	A	C	A	A	C	D	A	A	A	D	A[1]	A	B	A	A	C	B	D
Ammonia Nitrate	A	A	A[1]	C	A	C	A	D	C	A	D	B	A	B	B	N/A	A	A	N/A	C	A	D	N/A	A	A	B	A[1]	N/A	N/A	B	D
Ammonia, anhydrous	A	A[1]	D	D	A	A	D	D	B	A	D	A	A	B	D	A	A	B[1]	D	A	B	A	D	A	A	A	A	C	C	A	D
Ammonia, liquid	B	A[1]	D	D	A	A	D	D	C	A	D	A	A	B	N/A	A	A	C	D	A	N/A	B	D	A[1]	A	A	A	N/A	C	A	D
Ammonium Acetate	B	A	N/A	C	A	A	D	D	B	A	N/A	A	A	N/A	D	N/A	A	A	N/A	A	N/A	A	A	A	A	A	A	N/A	N/A	A	A
Ammonium Bifluoride	D	B	A	D	N/A	B	D	D	B	D	B	A	A	B	N/A	N/A	A	A[1]	N/A	D	A	N/A	N/A	A	A	A	A	N/A	N/A	A	A
Ammonium Carbonate	B	B	A	D	D	B	D	D	B	B	D	A	A	B	N/A	N/A	B	B[1]	A	A	A	A	C	A	A	A	A	C	A	A	A
Ammonium Chloride, 10%	C	B[1]	A	B	B	B	D	D	B	D	D	A	A	D	A	A	A	A[1]	A	B	A	B	A[1]	A	A	A	A	C	B	A	A
Ammonium Hydroxide (Aqueous Ammonia)	A	A	B	D	A	B	D	D	D	D	D	A	A	B	C	A	A	A	D	A	A	A	D	A[1]	A	B	A	A	C	B	D
Ammonium Nitrate, 10%	A	A	A[1]	A[1]	A	B	D	D	A	B	D	A	A	B	B	A	A	A	C	B	A	A	R	A	A	A	A	C	A	A	A
Ammonium Persulfate	A	B	A	D	D	D	D	D	A	D	D	A	B	B	N/A	A	A	A[1]	A	A	A	D	A	A	A	A	A	D	A	A	A
Ammonium Phosphate, Dibasic	B	C	A[1]	B[1]	A	B	B	D	A	D	D	A	A	B	N/A	A	N/A	A[1]	A	A	A	C	A[1]	A	A	A	A	A	A	A	A

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	304 Stainless Steel	316 Stainless Steel	ABS Plastic	Acetal (Delrin), POM	Acrylic (PMMA)	Aluminum	Brass	Bronze	Buna N (Nitrile)	Cast Iron	Copper	CPVC	EPDM	Hastelloy® - C	Hytrel® (TPE)	Kel-F® (PCTFE)	HDPE	LDPE	Natural Rubber	Neoprene (CR)	Noryl® (PPO)	Nylon (PA)	Polycarbonate (PC)	Polypropylene (PP)	PTFE	PVC	PVDF (Kynar®)	Silicone (VMQ)	Titanium	Tygon	Viton® (FKM)
Ammonium Phosphate, Monobasic	B	C	A[1]	B	A	B	A	D	A	D	D	A	A	B	B	N/A	N/A	A	A	A	A	B	A	A	A	A	N/A	A	A	A	A
Ammonium Phosphate, Tribasic	B	B	A[1]	B	A	B	N/A	C	A	D	D	A	A	B	N/A	N/A	N/A	C	A	A	A	B	N/A	A	A	A	N/A	A	A	A	A
Ammonium Sulfate	B	B	A	B	B	A	D	D	A	D	D	A	A	B	B	A	A	A	A	A	A	A	A[1]	A	A	A	A	A	A	A	A
Ammonium Thiosulfate	N/A	A	N/A	B	N/A	N/A	D	D	A	D	D	N/A	A	N/A	N/A	N/A	N/A	A	N/A	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	N/A
Amyl Acetate	A	A	D	B	C	A	A	A	D	C	A	D	A	A	C	A	N/A	C	D	D	D	B	D	B	A	D	A	D	A	D	D
Amyl Chloride	A	A	D	A	A	A	C	A	D	A	A	C	D	A	N/A	A	B	D	D	D	D	C	D	D	A	D	A	D	C	C	B
Antifreeze	A	A	B	D	A	A	B	A	A	A	N/A	A	A	A	N/A	N/A	N/A	N/A	A	C	A	D	N/A	D	A	A	N/A	C	N/A	B	A
Aqua Regia (80% HCl, 20% HNO_3)	D	D	D	D	D	D	D	D	D	D	D	C	C	C	N/A	A	D	B	D	D	D	D	D	B	A	C	A[1]	D	A	D	B
Arsenic Acid	A	A	A	D	A	D	D	B	A	D	A	A	A	B	N/A	N/A	B	B	B	A	A	C	A	A	A	A	A	A	B	B	A
Asphalt	B	A	N/A	B[1]	N/A	A	B	A	B	A	A	A	D	N/A	B	A	N/A	A	D	D	N/A	A	D	B	A	A	A	D	N/A	N/A	A
Barium Carbonate	B	B	A	A	A	D	B	B	A	A	A	A	A	B	N/A	A	A	B	N/A	N/A	A	A	A	A	A	A	A	N/A	A	N/A	A
Barium Sulfate	B	B	A	B[1]	A	B	B	C	A	B	B	B	A	A	D	A	B	B[1]	A	A	A	A	D	B	A	B	A	A	B	N/A	A
Barium Sulfide	B	B[1]	A	A	C	D	D	D	A	D	D	A	A	N/A	N/A	N/A	A	B[1]	A	A	A	A	N/A	B	A	A	A	A	A	N/A	A
Beer	A	A	A	A	A	A	B	A	A	D	B	A	A	A	A	A	A	A[1]	A	A	A	A	A[1]	A	A	A	A	A	B	C	A
Benzaldehyde	B	B	B	A	C	B	A	A	D	A	B	D	A	A	B	A	B	A	D	D	B	A	D	D	A	D	A[1]	D	A	D	D
Benzene	B	B	D	A	D	B	A	A	D	A	B	D	D	B	C	B	D	C	D	D	D	A	D	D	A	C	A[1]	D	A	C	A
Benzene Sulfonic Acid	B	B	N/A	C	N/A	D	B	N/A	D	D	N/A	D	D	B	B	N/A	A	A	A	A	A	D	D	D	A	A	A	D	B	B	A
Benzoic Acid	B	B	D	B	A	B	D	B	D	D	N/A	A	D	B	D	A	A	A	D	B	B	D	B	B	A	A	A	B	A	A	A
Benzyl Chloride	C	B	D	A	D	D	D	D	D	D	D	A	D	C	D	N/A	N/A	N/A	D	D	D	A[1]	N/A	C	A	N/A	A	D	N/A	N/A	A
Borax (Sodium Borate)	A	A	A[1]	B	A	B	A	B	B	A	B	A	A	B	A	A	A	A[1]	A	A	A	A	A	A[1]	A	A	A	B	B	N/A	A
Boric Acid, 10%	B	A	A[1]	A	A	D	B	B	A	D	B	A	A	A	A	A	A	A[1]	A	D	A	B	A	A	A	A	A	A	A	A	A
Bromine Gas	D	D	D	D	D	D	D	D	D	N/A	D	D	D	A	D	A	D	D	D	D	A	D	C	D	A	C	A	D	D	B	A
Butadiene	A	A	N/A	A	B	A	A	C	D	N/A	C	A	C	C	D	A	D	D	D	B	D	C	D	C	A	C	A	D	N/A	N/A	B
Butane Gas	A	A[1]	B	A	A	A	A	C	A	N/A	C	C	D	A	A	A	B	C	D	A	D	A[1]	D	A	A	C	A	D	A	C	A
Butanol (Butyl Alcohol)	A	A	D	A	D	B	A	A	A	N/A	B	A	A	B	B	A	B	B[1]	A	A	A	B	B	A	A	C	A	B	B	B	A
Butyl Amine	A	A	N/A	C	D	A	N/A	B	C	N/A	N/A	N/A	B	B	D	D	N/A	C	D	D	D	A[1]	D	B	A	D	A	B	B	D	D
Butyl Ether	B	A	N/A	D	D	A	N/A	N/A	B	N/A	N/A	D	D	B	N/A	A	N/A	N/A	D	D	D	A[1]	N/A	D	A	A	A	D	N/A	A	D
Butyric Acid, 20%	B	B[1]	D	A	C	B	A	D	D	D	C	D	B	A	B	A	D	D	D	D	D	C	D	B	A	B	A	D	A	D	B
Calcium Carbonate (Chalk) $CaCO_3$	A	B	N/A	A	A	D	D	A	A	N/A	A	A	A	B	N/A	N/A	B	B	A	A	A	A	C[1]	A	A	A	A	A	B	N/A	A
Calcium Chloride, 10%	C	B	B	D	B	D	B	A	A	C	B	A	A	A	A	A	A	B	A	A	A	A	A	A	A	C	A	A	A	N/A	A
Calcium Hydroxide (Lye), 10%	B	B	A[1]	D	A	C	D	D	A	A	D	A	A	A	B	A	A	A[1]	A	A	A	A[1]	D	A[1]	A	B	A[1]	A	A	B	A
Calcium Hypochlorite	C	B	N/A	D	B	D	D	D	C	D	D	B	B	B	C	B	A	A	D	D	A	D	D	A	A	B	A	B	A	A	A
Calcium Nitrate	C	B[1]	A	D	A	B	B	B	A	B	B	A	A	B	N/A	A	B	A	A	A	A	A	A[1]	A[1]	A	A	A[1]	B	B	A	A
Calcium Oxide (Unslaked Lime) CaO	A	A	D	A	A	C	N/A	D	A	N/A	N/A	A	A	A	A	N/A	A	B	B	A	A	B	D	A	A	B	A	A	A	C	B
Calcium Sulfate, 10%	B	B	C	D	A	C	B	A	A	A	A	A	A	B	N/A	A	A	B	B	B	A	D	A[1]	A	A	B	A	N/A	A	N/A	A
Carbolic Acid (Phenol)	B	B	D	D	D	A	D	B	D	D	D	B	B	A	D	B	A	D	D	D	D	D	D	B	A	D	A	D	A	B	A
Carbon Dioxide, dry	A	A	B	A	A	B	B	A	A	D	A	A	B	A	A	A	B	A	B	B	A	A	N/A	A[1]	A	A	A	B	A	N/A	B

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Carbon Dioxide, wet	A	A	B	A	A	A	A	A	A	D	A	A	B	A	A	A	B	A	B	B	A	A	A	A	A	A	A	B	A	N/A	B
Carbon Monoxide Gas	A	A	A[1]	A	A	A	A	A	A	A	A	A	A	B	A	A	B	A[1]	D	B	A	A	A	A	A	A	B	A	N/A	N/A	A
Carbonated Water (Carbonic Acid)	A	A	A	A	A	A	D	A	A	D	B	A	B	A	D	A	A	A	C	A	A	A	A	B	A	A	A	A	B	A	A
Carbonic Acid (Carbonated Water)	A	A	A	B	A	B	D	B	D	D	B	A	B	A	D	A	A	A	C	D	A	A	A	B	A	A	A	A	B	A	A
Chlorine Gas, dry 10%	A	B	D	D	A	C	D	B	B	D	A	D	A	A	D	D	B	D	D	C	B	D	A	D	A	D	A	D	D	A	A
Chlorine Dioxide, 8% aqueous solution	D	C	B	N/A	C	D	D	D	D	D	D	A	D	A	D	N/A	C	C	D	D	N/A	D	N/A	C	A	A	A	B	A	C	B
Chlorine Water (5-10 ppm)	C	C	D	D	A	D	D	B	D	N/A	D	A	C	A	D	A	C	B	C	D	C	C	N/A	D	A	A	B	D	A	N/A	A
Chloroacetic Acid	B	A	N/A	D	C	D	D	C	D	D	D	D	B	A	D	A	A	D	D	D	N/A	D	D	C	A	B	A	D	A	A	D
Chlorobenzene (mono)	A	B	D	D	D	A	B	C	D	B	B	D	D	A	D	A	D	C	D	D	D	D	D	C	B	D	A	D	B	A	A
Chlorobromomethane	B	B	N/A	B	N/A	D	N/A	N/A	D	D	B	N/A	B	N/A	D	N/A	N/A	A	D	D	C	C	N/A	A	A	D	N/A	D	N/A	N/A	A
Chloroform	A	A	D	A	D	B	B	B	D	B	A	D	D	A	D	B	D	C	D	D	D	A	D	C	A	D	A	D	A	B	A
Chlorosulfonic Acid	D	B[1]	N/A	D	D	C	B	D	D	D	D	D	D	A	D	A	D	D	D	D	D	D	C	D	A	D	D	D	A	C	D
Chromic Acid, 5%	B	A	B	D	C	C	D	B	D	D	D	A	A	B	D	A	A	D	B	D	A	D	B	D	A	A	A	C	A	B	A
Chromic Acid, 10%	B	B	B	D	C	D	D	D	D	D	D	A	C	A	D	A	A	D	D	D	A	D	B	D	A	A	A	C	B	C	B
Chromic Acid, 30%	B	B	B	D	D	D	D	D	D	D	D	A	B	D	D	A	A	D	D	D	D	D	C	D	A	A	A	C	A	B	A
Chromic Acid, 50%	C	B	D	D	D	D	D	D	D	D	D	D	B	B	D	A	A	D	D	D	D	D	D	D	A	D	A	C	A	B	A
Citric Acid, aqueous 10%	B	A[1]	D	B	A	C	D	D	A	D	D	B	A	A	A	A	A	D	A	A	A	A	A	A	A	B	A	A	A	N/A	A
Citrus Oil or Terpene (d-Limonene)	A	A	C	B	N/A	C	A	D	A	D	D	A	B	A	N/A	A	C	C	D	D	A	A	C	A	A	C	A	D	A	A	A
Clorox® Bleach	A	A	B	D	C	A	D	N/A	D	D	D	A	B	A	C	D	N/A	N/A	D	B	A	A	A	D	A	A	A	N/A	N/A	B	A
Coffee	A	A	N/A	A	A	A	D	A	A	N/A	A	A	A	A	N/A	N/A	A	N/A	A	A	A	A	C	A	A	N/A	N/A	A	A	N/A	A
Copper Chloride	D	D	A	A	A	N/A	D	D	A	N/A	D	A	A	N/A	A	A	B	N/A	C	A	A	D	N/A	A	A	A	A	A	D	A	A
Copper Sulfate, 5%	B	B	A[1]	D	A	D	D	B	A	D	B	A	A	A	A	A	A	A[1]	C	A	A	D	A	A	A	A	A	A	A	N/A	A
Cresols	A	A	D	D	D	A	C	A	D	C	A	D	D	B	D	A	D	C	D	D	D	D	D	D	A	D	A[1]	D	B	D	A
Cyclohexane	A	A	D	A	C	A	A	B	B	B	B	D	D	B	A	A	D	B	D	D	D	A	B	D	A	D	A	D	A	D	A
Cyclohexanone	A	A[1]	D	A	D	A	B	B	D	B	B	D	B	A	D	A	B	D	D	D	D	A	D	D	A	D	D	D	N/A	D	D
Detergents	A	A	B	A	A	B	A	B	A	N/A	A	A	A	B	B	A	A	D	B	B	A	A	A	A	A	A	A	A	A	A	A
Diacetone Alcohol	B	B	N/A	A	D	A	A	B	D	A	A	D	A	A	C	B	A	A	D	D	A	A	D	A	A	D	D	D	A	B	D
Dichlorobenzene	N/A	B	D	B	D	B	N/A	B	D	N/A	N/A	D	D	A	D	N/A	D	D	D	D	N/A	D	D	C	A	D	A	D	N/A	N/A	C
Dichloroethane	B	B	D	A	D	B	B	D	D	N/A	A	D	N/A	A	N/A	A	C	C	D	D	A	A	D	D	A	D	A	N/A	B	D	C
Diesel Fuel	A	A	N/A	A	B	A	A	A	A	A	A	A	D	B	B	A	D	C	D	B	D	A	A[1]	A	A	A	A	D	B	N/A	A
Diethyl Ether	B	B[1]	D	A	D	B	B	A	D	N/A	A	D	D	B	C	C	D	N/A	D	D	N/A	A	D	A	A	D	A	D	A	N/A	D
Diethylamine	A	A	D	B	B	B	A	A	C	B	A	D	B	A	N/A	A	D	D	A	A	N/A	A	D	A	D	D	D	B	A	C	A
Dimethylformamide (N,N-Dimethylformamide)	A	B	D	C	D	B	C	B	C	B	A	D	B	A	B	A	A	A	C	D	D	A	D	A	A	D	D	C	A	D	D
Dyes	A	A	N/A	C	D	B	A	N/A	D	N/A	A	N/A	A	N/A	D	N/A	N/A	N/A	C	C	A	A	D	N/A	A	B	N/A	N/A	N/A	C	A
Ethane	A	A	N/A	A	N/A	A	N/A	N/A	A	A	A	A	D	A	N/A	N/A	N/A	N/A	D	B	N/A	D	N/A	D	A	A	A	D	N/A	A	A
Ethanol (Ethyl Alcohol)	A	A	B	A	D	B	A	A	C	B	A	B	A	A	D	A	A	B	A	A	A	C	A	A	C	A	B	A	C	A
Ethanolamine	A	A	N/A	D	C	B	N/A	B	B	B	D	N/A	B	B	N/A	D	N/A	N/A	B	B	A	A	N/A	D	A	D	C	B	B	N/A	D

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***Explanation of Footnote**
1. Satisfactory to 120°F (48° C)

	304 Stainless Steel	316 Stainless Steel	ABS Plastic	Acetal (Delrin), POM	Acrylic (PMMA)	Aluminum	Brass	Bronze	Buna N (Nitrile)	Cast Iron	Copper	CPVC	EPDM	Hastelloy® - C	Hytrel® (TPE)	Kel-F® (PCTFE)	HDPE	LDPE	Natural Rubber	Neoprene (CR)	Noryl® (PPO)	Nylon (PA)	Polycarbonate (PC)	Polypropylene (PP)	PTFE	PVC	PVDF (Kynar®)	Silicone (VMQ)	Titanium	Tygon	Viton® (FKM)
Ether	A	A	D	A	D	B	B	A	D	C	A	D	C	B	N/A	B	D	D	D	D	D	A	D	D	A	D	B	D	A	C	C
Ethyl Acetate	B	B	D	A	D	A	B	A	D	A	A	D	B	A	B	A	A	A	C	D	A	A[1]	D	A	A	D	D	B	A	D	D
Ethyl Benzoate	A	A	D	A	D	A	N/A	N/A	D	A	A	D	A	A	C	N/A	B	C[1]	D	D	A	D	D	B	A	D	D	D	N/A	D	A
Ethyl Chloride	A	A	D	A	D	B	A	A	A	C	B	D	A	B	C	B	C	C	B	C	D	A	D	D	A	D	A	D	A	D	A
Ethyl Ether	B	B	D	A	D	B	B	A	D	C	A	D	D	B	N/A	A	D	D	D	D	D	A	N/A	D	A	D	A[1]	D	A	N/A	D
Ethylene Glycol	B	B	A	B	A	A	B	A	A	A	A	A	A	B	A	A	A	A[1]	A	A	A	A	B	A	A	A	A	A	A	B	A
Ethylene Oxide Gas (EtO), dry 3%	B	B	D	D	A	D	D	C	D	D	D	C	C	A	A	A	B	A	D	D	A	A	C	D	A	D	A	D	N/A	N/A	D
Fatty Acids	B	A	A	A	A	A	C	A	B	C	D	A	D	A	B	A	A	D	C	C	A	A	B	A	A	A	A	C	B	B	A
Ferric Chloride, 10%	D	D	A	D	A	D	D	D	A	D	D	A	A	B	C	A	D	A	A	B	A	A	A[1]	A	A	A	A	B	A	B	A
Ferric Nitrate	B	B	A	D	A	D	D	C	A	D	D	A	A	B	D	A	B	A[1]	A	A	A	A	A	A	A	A	A	C	A	N/A	A
Ferric Sulfate	B	A	A	D	B	D	D	C	A	D	D	A	A	A	A	A	A	A[1]	A	A	A	A	A	A	A	A	A	B	A	B	A
Ferrous Sulfate	B	B	A	D	A	B	B	B	A	D	B	A	A	B	A	A	B	A[1]	B	A	A	D	A	A	A	A	A	N/A	A	B	B
Fluosilicic Acid, 20%	C	B	D	B	B	D	N/A	B	A	B	B	A	A	B	N/A	A	B	B[1]	A	B	B	D	N/A	A	A	A	A	D	D	A	A
Fluosilicic Acid, 100%	D	D	D	A	C	D	N/A	B	B	D	D	N/A	A	B	N/A	B	C	B	A	B	B	D	N/A	A	A	B	A	D	D	D	A
Formaldehyde, 40%	A	A	A	A[1]	B	B	A	A	B	B	B	A	A	B	C	A	A	D	B	B	A	A	A	A	A	A	A	N/A	B	N/A	A
Formaldehyde, 100%	C	A	B	A	D	A	N/A	B	C	C	A	A	A	A	D	A	A	B	C	C	A	D	A[1]	C	A	A	A	B	A	B	D
Formic Acid (Methanoic Acid), 10%	B	A	D	A[1]	B	A	D	C	C	D	C	A	A	A	B	A	A	D	C	A	A	D	A	A	A	A	A	B	C	B	C
Fruit Juices	A	A	B	D	A	A	D	N/A	A	D	A	A	A	A	B	A	A	A	D	A	B	A	A	B	A	A	A	N/A	A	B	A
Fuel Oils	A	A	D	A	B	C	B	A	A	A	A	N/A	D	A	B	A	C	B	D	B	B	A	B	A	B	A	B	D	A	A	A
Furfural (Ant Oil) $C_5H_4O_2$	A	B	D	A	D	A	A	B	D	B	A	D	D	B	B	D	A	D	D	D	D	B	D	D	A	D	B[1]	D	A	D	D
Gallic Acid, 5%	A	B	N/A	N/A	A	D	C	B	B	D	D	C	B	B	D	A	A	A	A	B	A	A	A	A	B	B	A	D	B	A	A
Gasoline (high-aromatic)	A	A	D	B	D	D	N/A	A	A	A	N/A	C	D	A	A	A	B	A	D	A	B	A	A	A	B	A	A	D	B	A	A
Gasoline, leaded, ref.	A	A	D	A	D	A	A	A	A	A	B	D	D	A	A	A	B	N/A	D	B	B	A	A	B	A	B	A	D	A	C	A
Gasoline, unleaded	A	A[1]	D	A	D	A	A	A	A	A	B	C	D	A	N/A	A	B	N/A	D	B	D	A[1]	A[1]	C	A	C	A	D	A	C	A
Glucose	A	A	B	A	A	A	A	N/A	A	A	A	A	A	A	A	N/A	A	A[1]	A	A	A	A	A	A	A	A	A	A	A	A	A
Glue, PVA (Polyvinyl Acetate)	A	A[1]	N/A	A	D	A	N/A	A	A	A	B	A	A	A	A	N/A	A	A	A	A	N/A	A	N/A	N/A	A	C	A	A	A	C	B
Glycerin	A	A	C	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A[1]	A	A	A	A	A	A	A	A
Glycolic Acid	A	A	B	A	C	N/A	N/A	N/A	A	N/A	N/A	A	A	A	N/A	B	B	A	D	A	N/A	N/A	N/A	A	A	B	B	A	A	A	A
Grease	N/A	A	N/A	D	A	N/A	A	A	A	A	A	N/A	D	A	A	N/A	N/A	N/A	D	D	N/A	N/A	A	N/A	A	A	A	D	N/A	A	A
Heptane	A	A	D	A	C	A	A	A	A	A	A	A	D	A	B	A	B	B	D	B	B	A	B	C[1]	A	C	A	D	A	B	A
Hexane	A	A	D	A	C	A	A	A	A	A	A	B	D	A	A	A	C	D	D	B	B	B	D	B	A	B	A	D	A	D	A
Honey	A	A	N/A	A	A	A	N/A	A	A	A	N/A	N/A	A	A	N/A	N/A	N/A	B	A	A	N/A	A	A	A	A	A	A	A	N/A	A	A
Hydraulic Oil (Petro)	A	A	N/A	B	D	A	A	A	A	A	A	N/A	D	A	D	N/A	A	C	D	A	N/A	A	N/A	D	A	A	A	B	N/A	A	A
Hydraulic Oil (Synthetic)	A	A	N/A	B	D	A	A	A	D	A	A	N/A	A	A	A	N/A	A	A	D	A	N/A	A	N/A	D	A	A	A	B	N/A	A	A
Hydrazine (Diamine) H_2NNH_2	A	A	N/A	B	C	N/A	D	N/A	B	D	A	D	A	N/A	C	N/A	D	N/A	C	B	N/A	N/A	D	C	A	N/A	A	B	N/A	N/A	A
Hydrobromic Acid, 20%	D	D	N/A	C	D	D	D	N/A	D	D	D	A	A	A	N/A	A	D	B	A	D	B	D	N/A	A	N/A	B	A	D	A	B	A
Hydrobromic Acid, 100%	D	D	B	D	D	D	D	N/A	D	D	D	A	A	C	N/A	A	D	B	A	D	B	D	N/A	C	A	A	A	D	A	B	A

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	304 Stainless Steel	316 Stainless Steel	ABS Plastic	Acetal (Delrin), POM	Acrylic (PMMA)	Aluminum	Brass	Bronze	Buna N (Nitrile)	Cast Iron	Copper	CPVC	EPDM	Hastelloy® - C	Hytrel® (TPE)	Kel-F® (PCTFE)	HDPE	LDPE	Natural Rubber	Neoprene (CR)	Noryl® (PPO)	Nylon (PA)	Polycarbonate (PC)	Polypropylene (PP)	PTFE	PVC	PVDF (Kynar®)	Silicone (VMQ)	Titanium	Tygon	Viton® (FKM)
Hydrochloric Acid, 20%	D	D	A	C	C	D	D	D	D	D	D	A	A	A	B	A	A	A[1]	A	C	A	D	B	B[1]	A	A	A	D	D	A	A
Hydrochloric Acid, 37%	D	D	A	C	C	D	D	D	B	D	D	A	C	B	C	A	A	B	A	B	A	D	D	C	A	B	A	B	D	A	A
Hydrochloric Acid, 100%	D	D	A	C	D	D	D	D	D	D	D	A	D	A	D	A	D	N/A	D	D	A	D	D	B	A	D	A	D	D	A	A
Hydrochloric Acid, dry gas	D	D	N/A	N/A	N/A	D	D	A	N/A	N/A	D	A	N/A	A	N/A	A	D	A	N/A	N/A	A	A	N/A	B	A	A	A	N/A	C	N/A	N/A
Hydrofluoric Acid, 20%	D	D	C	D	C	D	D	B	D	D	B	C	D	B	D	B	A	A	B	B	C	C	D	A[1]	A	B	A	D	D	C	A
Hydrofluoric Acid, 50%	D	D	C	D	C	D	D	B	D	D	B	C	D	B	D	B	A	A	B	D	D	D	D	A	A	B	A	D	D	C	B
Hydrofluoric Acid, 75%	D	D	C	D	D	D	D	B	D	D	B	C	C	B	D	B	B	C	D	D	D	D	D	C	A	C	A	D	D	C	B
Hydrofluoric Acid, 100%	B	B	D	D	D	D	D	B	D	D	B	C	D	B	D	A	D	N/A	D	D	D	D	D	C	A	C	A	D	D	D	B
Hydrogen Gas	A	A	A[1]	N/A	N/A	A	A	A	A	A	A	A	A	A	A	B	A	A[1]	B	A	A	A[1]	A[1]	A	A	A	A	C	A	A	A
Hydrogen Peroxide, 10%	B	B	A	D	C	A	D	B	D	C	D	A	A	A	D	A	A	A	B	D	A	C	A	A	A	A	A	A	A	B	A
Hydrogen Peroxide, 30%	B	B	N/A	D	C	A	D	B	D	B	D	A	B	A	D	B	A	C[1]	C	D	A	D	A[1]	B	A	A	A	B	B	B	A
Hydrogen Peroxide, 50%	B	A[1]	N/A	D	D	A	D	B	D	N/A	D	A	B	A	D	A	A	C[1]	C	D	N/A	D	A[1]	B	A	A	A	B	A	B	A
Hydrogen Peroxide, 100%	B	A[1]	A	D	D	A	D	B	D	B	D	A	D	A	D	B	A	C[1]	C	D	A	D	A	B	A	A	A	B	B	B	A
Hydrogen Sulfide, aqueous	C	A	B	C	A	B	D	A	D	D	D	A	B	A	A	A	A	A	C	A	A	C	A	A	A	B	A	C	B	A	D
Hydrogen Sulfide, dry	C	A	N/A	A	A	B	D	B	D	D	D	A	B	A	A	B	A	A	C	A	N/A	C	N/A	A	A	A	A	C	A	D	D
Ketones	A	A	A	D	D	B	N/A	A	D	A	A	N/A	D	A	D	B	D	C	A	D	D	A[1]	D	C	A	D	C	N/A	A	D	D
Lacquer Thinners	A	A	A	D	D	A	A	A	D	C	A	N/A	D	A	D	N/A	D	A	D	D	D	A	B	D	A	D	N/A	D	C	D	D
Lacquers	A	A	A	D	N/A	A	D	A	D	C	A	A	D	A	D	A	D	A	D	D	D	A	D	D	A	D	D	D	A	A	D
Lactic Acid	B	B	D	B	A	B	D	B	A	D	B	A	A	B	D	A	A	A	A	A	A	B	B	B	A	B	B	A	A	A	A
Latex	A	A[1]	B	B	N/A	A	A	A	A	A	N/A	N/A	A	A	N/A	N/A	N/A	N/A	N/A	B	N/A	A	N/A	A[1]	A	N/A	A	A	N/A	A	A
Ligroin	A[1]	A[1]	N/A	B	N/A	D	N/A	N/A	A	A	N/A	N/A	D	N/A	N/A	N/A	N/A	A	D	B	N/A	D	A	A[1]	A	N/A	A	D	N/A	A	A
Lime (CaO)	A	A	A[1]	B	A	A	N/A	N/A	A	A	N/A	N/A	D	N/A	C	A	A	A	N/A	A	N/A	A	D	D	A	B	A	N/A	A	A	A
Linoleic Acid	B	A	A	B	N/A	A	D	C	B	D	D	A	D	A	N/A	N/A	B	A	D	D	N/A	N/A	N/A	B	A	A	A[1]	B	N/A	A	B
Lithium Hydroxide	C	C	N/A	N/A	N/A	D	D	B	C	B	N/A	N/A	A	B	N/A	N/A	D	N/A	A	D	N/A	N/A	D	A	A	N/A	N/A	N/A	N/A	N/A	A
Lubricants	A	A[1]	N/A	A	A	A	A	A	A	A	A	N/A	D	A	A	N/A	B	D	D	D	C	A	A	A	A	B	A	D	A	B	A
Lye (KOH, Potassium Hydroxide)	B	A	A	A	B	D	D	D	B	B	B	A	A	B	D	B	B	A	B	B	A	C	D	A	A	B	A	C	D	B	B
Lye (NaOH, Sodium Hydroxide)	B	B	C	C	A	D	D	D	A	D	B	A	B	C	C	B	B	D	A	B	A	A	D	A	A	A	D	A	B	B	B
Magnesium Bisulfate	A	A	N/A	N/A	N/A	D	N/A	A	B	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	B	B	N/A	A	A	A[1]	A	A	N/A	N/A	N/A	A	N/A
Magnesium Chloride, 10%	D	D	B	B	A	D	D	B	A	D	A	A	A	A	C	A	A	A	A	A	A	A	A[1]	A[1]	A	B	A	A	A	A	A
Magnesium Hydroxide, 10%	B	A	B	A	A	C	D	B	A	A	B	A	A	A	C	A	B	A[1]	A	A	A	B	A	A	A	A	A	A	C	A	A
Malic Acid (Apple Acid) $C_4H_6O_5$	A	A[1]	N/A	A	N/A	B	B	B	A	D	D	A	D	B	N/A	N/A	N/A	B[1]	B	D	N/A	A	D	A	A	A	A	B	A	A	A
Mercury	A	A	B	A	A	D	D	A	A	A	D	A	A	A	B	A	A	A	A	A	A	A	D	B	A	A	A	N/A	A	D	A
Methane Gas	A	A	A	A	A	A	A	A	A	N/A	A	N/A	D	A	B	N/A	A	N/A	D	B	N/A	A	A	A	A	B	A	D	N/A	N/A	A
Methanol (Methyl Alcohol)	A	A	D	A	C	A	A	A	A	A	B	A	A	A	B	A	A	A	A	A	A	B	B	A[1]	A	A	A	A	B	A	C
Methyl Acetate	A	B	D	B	D	A	N/A	A	D	A	B	N/A	B	A	C	A	C	B	D	B	N/A	A	D	D	A	D	B	D	N/A	A	D
Methyl Acetone (mixture)	A	A	N/A	D	N/A	A	A	A	D	A	N/A	N/A	A	A	N/A	N/A	N/A	N/A	A	D	N/A	A	N/A	D	A	D	D	N/A	N/A	A	D
Methyl Alcohol, 10%	A	A	D	A	C	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A	A	B	B	A[1]	A	A	A	A	B	A	C

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Explanation of Footnote
1. Satisfactory to 120°F (48° C)

	304 Stainless Steel	316 Stainless Steel	ABS Plastic	Acetal (Delrin), POM	Acrylic (PMMA)	Aluminum	Brass	Bronze	Buna N (Nitrile)	Cast Iron	Copper	CPVC	EPDM	Hastelloy® - C	Hytrel® (TPE)	Kel-F® (PCTFE)	HDPE	LDPE	Natural Rubber	Neoprene (CR)	Noryl® (PPO)	Nylon (PA)	Polycarbonate (PC)	Polypropylene (PP)	PTFE	PVC	PVDF (Kynar®)	Silicone (VMQ)	Titanium	Tygon	Viton® (FKM)
Methyl Butyl Ketone	A	A	N/A	D	D	A	N/A	D	D	N/A	N/A	N/A	A	N/A	N/A	N/A	N/A	N/A	D	D	N/A	D	D	D	A	A	D	D	N/A	N/A	D
Methyl Cellosolve	B	B	A	D	A	B	A	A	A	C	B	D	B	N/A	N/A	N/A	N/A	N/A	D	B	N/A	C	D	B	A	D	A	D	N/A	C	D
Methyl Chloride	A	A	D	B	D	D	A	B	D	D	N/A	D	D	B	D	A	N/A	C	D	D	D	B	D	D	A	D	A	D	A	D	A
Methyl Ethyl Ketone (MEK, Butanone)	A	A	D	C	D	B	A	A	D	A	A	D	A	A	B	A	D	B	D	D	D	A	D	B[1]	A	D	D	D	A	D	D
Methyl Ethyl Ketone Peroxide (MEKP)	N/A	A	D	D	N/A	D	D	D	D	D	D	D	D	N/A	N/A	N/A	N/A	N/A	D	D	N/A	N/A	N/A	N/A	A	N/A	N/A	B	N/A	N/A	D
Methyl Isobutyl Ketone	B	B	D	D	D	B	N/A	A	D	C	B	D	B	A	B	A	D	C	D	D	D	B[1]	D	A	A	D	D	D	A	N/A	D
Methyl Isopropyl Ketone	A	A	N/A	A	D	A	N/A	A	D	C	A	N/A	C	A	D	N/A	D	D	D	D	D	A	D	N/A	A	D	A	C	N/A	N/A	D
Methylamine	A	A	D	D	D	A	D	A	B	A	N/A	N/A	A	B	N/A	A	N/A	A	B	A	N/A	N/A	D	A[1]	A	D	C	N/A	N/A	D	D
Methylene Chloride	B	B	D	B	D	C	A	B	D	B	B	D	C	B	D	A	D	D	B	D	D	C	D	B	A	D	B	D	B	D	B
Milk	A	A	B	A	A	A	D	A	A	D	D	A	A	A	B	A	B	A	A	A	A	A	A	B	A	A	A[1]	A	A	B	A
Mineral Spirits	A	A	D	A	B	A	A	A	A	B	N/A	A	D	B	N/A	A	D	B	D	C	A	A	C	B	A	A	N/A	D	B	B	A
Monochloracetic Acid	A	A	N/A	D	D	D	B	B	D	D	D	N/A	C	A	D	B	D	N/A	N/A	A	N/A	D	D	N/A	A	N/A	B	N/A	A	N/A	C
Monoethanol Amine	A	A	N/A	D	N/A	B	N/A	A	D	A	D	N/A	B	N/A	D	N/A	N/A	C	B	D	A	A	N/A	B	A	D	C	B	B	N/A	D
Morpholine	N/A	A	C	N/A	D	A	N/A	B	D	B	N/A	N/A	D	A	N/A	N/A	B	N/A	A	D	D	A[1]	D	B[1]	A	N/A	B	N/A	N/A	N/A	N/A
Motor Oil	A	A[1]	C	B	B	A	A	A	A	N/A	A	A	D	N/A	B	A	A	C	D	B	A	A[1]	A	A	A	B	B	N/A	A	A	N/A
Mustard	A	A	B	C	N/A	B	N/A	A	B	D	N/A	A	A	A	B	N/A	A	A	B	A	A	A	A	A	A	B	A	N/A	A	B	D
Naphtha	A	A	D	A	D	A	A	A	A	B	A	A	D	B	B	A	D	A	D	D	D	A	B	B	B	A	A	D	B	C	A
Natural Gas	A	A	B	B	A	A	A	A	A	A	A	N/A	D	N/A	B	N/A	A	A	C	A	N/A	N/A	D	A	A	A	N/A	A	N/A	A	A
Nitric Acid, 5-10%	A	A	B	D	A	A	D	A	D	D	D	A	A	A	C	A	A	B	D	B	A	D	A	A	A	A	A	C	A	D	A
Nitric Acid, 20%	A	A	B	D	A	D	D	A	D	D	D	A	A	A	D	A	B	C	D	D	B	D	B	A[1]	A	A	A	D	A	D	A
Nitric Acid, 50%	A	A	C	D	C	D	D	A	D	D	D	B	D	A	D	A	D	B	D	D	B	D	B	B	A	B	A	D	A	D	A
Nitric Acid (Concentrated)	A	A	D	D	D	D	D	A	D	D	D	D	D	B	D	A	D	C	D	D	B	D	C	D	A	B	A	D	A	D	A
Nitrobenzene	B	B	D	C	D	B	C	A	D	C	B	D	B	D	D	A	D	C	D	D	D	B	D	B	A	D	A	D	A	D	B
Nitromethane	A	A	D	A	D	A	N/A	N/A	D	N/A	A	N/A	B	A	C	A	D	A	B	D	D	B	D	B[1]	A	B	A[1]	D	N/A	B	D
Nitrous Acid	B	B	D	N/A	C	D	D	B	D	D	C	A	A	D	N/A	B	D	N/A	C	D	N/A	N/A	N/A	A	A	A	B	N/A	N/A	A	B
Nitrous Oxide	B	B	N/A	N/A	D	B	B	D	A	B	B	N/A	A	B	N/A	N/A	N/A	C	A	A	N/A	C	D	D	A	A	D	N/A	N/A	A	B
Oils: Citric	A	A	D	A	N/A	A	B	N/A	D	D	N/A	N/A	B	A	N/A	N/A	B	A	N/A	D	A	A	A	A	A	B	A	N/A	A	D	A
Oils: Cod Liver	A	A	A	B	A	A	D	N/A	A	D	N/A	A	A	A	N/A	A	A	N/A	D	B	N/A	N/A	A	A	A	A	A	B	N/A	N/A	A
Oils: Corn	A	A	B	A	A	A	B	N/A	D	A	B	N/A	C	A	A	A	A	A	D	A	A	A	N/A	A[1]	A	B	A	A	N/A	B	B
Oils: Cottonseed	A	A	A	A	A	A	A	N/A	A	A	A	A	D	A	A	A	A	A	D	C	A	B	N/A	A	A	B	A	A	A	B	A
Oils: Diesel Fuel (20, 30, 40, 50)	A	A	N/A	D	B	A	A	A	A	A	A	N/A	D	B	A	A	D	A	D	B	D	A	A	A	A	B	A	D	B	A	A
Oils: Fuel (1, 2, 3, 5A, 5B, 6)	A	A	D	D	B	C	B	A	B	A	A	N/A	D	A	A	A	C	B	D	D	A	A	B	B	A	A	B	C	B	A	B
Oils: Hydraulic Oil (Petro)	A	A	N/A	B	N/A	A	A	A	A	A	A	N/A	D	A	A	N/A	A	C	D	A	N/A	A	N/A	D	A	A	A	B	N/A	A	A
Oils: Hydraulic Oil (Synthetic)	A	A	N/A	B	N/A	A	A	A	D	A	A	N/A	A	A	A	N/A	A	A	D	A	N/A	A	N/A	D	A	A	A	B	N/A	A	A
Oils: Mineral	A	A	A	A	A	A	A	A	A	N/A	B	A	D	A	A	A	A	B	D	B	A	A	B	A	A	B	A	C	A	B	A
Oils: Silicone	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A	N/A	A	A	D	D	A	A	A	A	A	A	A	C	N/A	A	A
Oils: Soybean	A	A	A	A	N/A	A	N/A	A	A	A	N/A	A	C	A	B	A	A	A	D	C	N/A	A	N/A	A	A	A	A	A	A	B	A

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Oils: Turbine	A	A	N/A	A	N/A	A	N/A	A	B	A	A	A	A	N/A	N/A	N/A	N/A	C	D	D	N/A	A	N/A	B	A	A	A	D	A	A	A
Oleic Acid	A	A	D	A	C	A	D	B	B	N/A	A	A	B	A	A	B	C	C[1]	D	C	A	A	A	B	A	C	A	D	B	C	B
Oxalic Acid, cold 10%	B	A	A	B	A	A	D	B	D	C	B	A	A	B	D	D	A	A[1]	B	D	A	B[1]	N/A	A[1]	A	B	B	B	A	B	A
Ozone Gas	B	A	B	C	A	B	B	B	D	C	A	A	A	A	C	A	C[1]	C	D	C	N/A	D	A	B	A	B	A	A	A	B	A
Palmitic Acid	B	A	A	A	D	B	D	A	A	N/A	B	A	B	B	A	N/A	A	N/A	B	D	N/A	A	A	B	A	B	A[1]	D	N/A	B	A
Paraffin	A	A	A	A	A	A	A	A	B	N/A	B	A	D	B	N/A	A	B	B	B	B	A	A	A	A	A	B	A	N/A	A	B	B
Pentane (C_5H_{12}	C	C	A	B	N/A	B	A	C	A	N/A	A	N/A	D	A	B	N/A	N/A	D	D	B	N/A	A	A	D	A	A	A	D	N/A	A	A
Peracetic Acid (Peroxyacetic Acid)	B	A	B	D	D	C	D	D	C	D	D	D	B	A	N/A	N/A	A	D	D	D	N/A	D	A	A	A	C	A	C	N/A	D	A
Perchloric Acid	C	C	N/A	C	C	D	N/A	B	D	N/A	D	A	B	B	D	B	D	B	D	A	N/A	D	D	C	A	C	A	D	D	D	A
Peroxyacetic Acid (Peracetic Acid)	B	A	B	D	D	C	D	D	C	D	D	D	B	A	N/A	N/A	A	D	D	D	N/A	D	A	A	A	C	A	C	N/A	D	A
Petroleum	A	A	B	B	N/A	D	N/A	A	A	N/A	B	A	D	N/A	B	N/A	D	C	D	B	D	A	C	B	A	N/A	A	D	A	N/A	A
Phenol, 10%	B	B	D	B	D	A	N/A	B	D	D	B	A	B	B	D	B	D	B	A	D	D	D	B	B	A	C	A	D	B	C	A
Phenol (Carbolic Acid)	B	B	D	D	D	A	D	B	D	D	D	B	B	A	D	B	D	D	D	D	D	D	D	B	A	D	A	D	A	B	A
Phosphoric Acid, >40%	D	D	C	D	C	C	D	B	D	D	D	A	B	A	D	A	A	B	B	B	A	B	A	A[1]	A	B	B	D	C	D	A
Phosphoric Acid, crude	D	B	C	D	D	C	D	B	D	D	D	N/A	B	A	N/A	A	B	B	D	D	A	B	A	B	A	B	A	D	C	D	A
Phosphoric Acid, S40%	D	C	B	D	D	C	D	B	D	D	D	A	B	A	N/A	A	A	A	B	B	A	B	A	A	A	B	B	C	C	D	A
Phosphoric Acid Anhydride	A	A	A	D	D	C	D	N/A	D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	N/A	N/A	A	N/A	N/A	D	A	A	N/A	D	N/A	D	N/A	D
Phosphorus	A	A	N/A	B	D	B	N/A	A	N/A	N/A	B	B	N/A	A	N/A	N/A	D	B	N/A	N/A	N/A	N/A	D	A	A	A	A	N/A	N/A	B	N/A
Photographic Developer	A	A	B	D	B	N/A	N/A	A	A	D	D	A	B	B	D	N/A	A	A	A	A	A	N/A	A	A	A	A	N/A	B	A	N/A	A
Photographic Solutions	D	N/A	N/A	D	B	N/A	N/A	A	B	N/A	D	A	A	B	B	A	A	A	B	B	A	A	A	A	A	A	B	A	A	A	B
Potassium Bicarbonate	B	B	A	C	A	D	N/A	B	A	A	B	A	A	B	N/A	A	B	A	A	A	A	A	N/A	A	A	A	B	A	A	A	A
Potassium Bromide	B	B	A	A	A	C	N/A	B	A	D	B	A	A	B	N/A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	B	A
Potassium Chloride, up to 30%	B	A	A	A	A	D	D	B	A	A	B	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Potassium Dichromate	B	B	B	A	B	B	D	B	A	A	B	A	A	B	C	A	B	A	B	A	A	B	A	A	A	A	A	A	A	C	A
Potassium Ferrocyanide	B	B	A[1]	B	C	B	N/A	B	D	C	B	B	A	B	N/A	A	B	A[1]	A	A	A	B	D	A[1]	A	A	A[1]	N/A	A	B	A
Potassium Hydroxide (Caustic Potash)	B	A	A	A	B	D	D	D	B	B	B	A	A	B	D	B	A	A	B	B	A	C	D	A	A	A	A	C	D	B	B
Potassium Iodide	A	A	B	N/A	A	B	N/A	A	A	A	A	A	A	A	N/A	N/A	B	B	B	A	N/A	A	A	A[1]	A	A	A[1]	N/A	A	B	A
Potassium Nitrate, 10%	B	B	B	A	A	B	B	B	A	A	A	A	A	B	B	N/A	B	A	A	A	A	B	A	A	A	A	A	A	A	A	A
Potassium Nitrite	B	B	B	A	N/A	B	B	B	A	A	A	A	A	B	B	N/A	N/A	A	A	A	A	B	A	A	A	A	A	A	A	A	A
Potassium Permanganate	B	B	B	A	B	B	C	A	C	A	A	A	A	A	D	N/A	A	A	A	A	A	D	A[1]	A	A	A	A	N/A	A	B	A
Propane (liquefied)	A	A	A	A	N/A	A	A	A	A	A	A	A	D	A	A	A	D	C	D	C	A	A	C	A	A	A	A	D	N/A	N/A	A
Propylene (C_3H_6, Propene, Methyl Ethylene)	B	A	B	A	B	A	N/A	N/A	D	A	A	N/A	D	A	N/A	N/A	N/A	N/A	D	D	N/A	N/A	A	A	A	B	A	D	N/A	B	A
Propylene Glycol	B	B	B	B	B	B	B	A	A	A	A	C	A	B	N/A	N/A	A	B[1]	A	C	N/A	A	B	A[1]	A	C	A	A	A	N/A	A
Pyridine (C_5H_5N)	A	A	A	B	D	B	B	B	D	A	B	D	B	B	C	A	D	B	D	D	B	C	D	A[1]	A	D	D	D	B	D	D
Resorcinol ($C_6H_6O_2$)	N/A	N/A	A	N/A	C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	N/A	D	N/A	A	B[1]	N/A	D	N/A	D	B	A[1]	A	C	N/A	N/A	N/A	C	A
Rosins	A	A	N/A	B	N/A	B	C	B	A	D	B	C	A	A	N/A	A	B	B	N/A	A	N/A	A	N/A	A[1]	A	C	N/A	A	N/A	N/A	A
Salicylic Acid	B	B[1]	A	D	B	B	C	A	B	A	A	N/A	A	A	N/A	A	A	B[1]	A	D	N/A	A	A	A	A	B	A	N/A	A	B	A

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	304 Stainless Steel	316 Stainless Steel	ABS Plastic	Acetal (Delrin), POM	Acrylic (PMMA)	Aluminum	Brass	Bronze	Buna N (Nitrile)	Cast Iron	Copper	CPVC	EPDM	Hastelloy® - C	Hytrel® (TPE)	Kel-F® (PCTFE)	HDPE	LDPE	Natural Rubber	Neoprene (CR)	Noryl® (PPO)	Nylon (PA)	Polycarbonate (PC)	Polypropylene (PP)	PTFE	PVC	PVDF (Kynar®)	Silicone (VMQ)	Titanium	Tygon	Viton® (FKM)
Salt Brine (NaCl saturated)	B	A	A[1]	A	A	B	A	B	A	D	B	A	A	A	A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	A
Sea Water	C	C	A[1]	A	A	B	D	A	A	D	B	A	A	A	D	A	A	A[1]	A	B	A	A[1]	A[1]	A	A	A	A	A	A	N/A	A
Shellac (Bleached)	A	A	N/A	A	N/A	A	B	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	A	A	B	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A	A
Shellac (Orange)	A	A	N/A	A	N/A	A	B	A	A	A	A	N/A	A	N/A	N/A	N/A	N/A	A	D	D	N/A	A	N/A	A	A	N/A	N/A	N/A	N/A	N/A	A
Silicone	A	A	D	A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	C	A	A	A	A[1]	A	A	A	A	C	N/A	N/A	A
Silver Bromide	D	D	N/A	C	A	D	N/A	D	N/A	D	N/A	N/A	N/A	B	N/A	A	N/A	A	N/A	N/A	A	N/A	N/A	N/A	A	N/A	N/A	N/A	N/A	N/A	N/A
Silver Nitrate	B	B	B	A	A	D	D	B	B	C	D	A	A	A	D	A	A	A	A	A	A	A	A[1]	A	A	A	A	A	A	B	A
Soap Solutions	A	A	A	A	A	C	B	B	A	A	A	A	A	A	A	N/A	B	D	B	B	A	A	A	A	A	A	A	A	A	B	A
Sodium Acetate	B	B	B	B	B	B	B	B	B	B	A	A	A	A	N/A	A	A	A	A	B	A	B	A	A	A	B	A	D	A	N/A	D
Sodium Benzoate	N/A	N/A	A	N/A	A	A	N/A	A	B	N/A	N/A	A	A	A	N/A	N/A	B	A[1]	A	A	N/A	B	A[1]	A[1]	A	B	A[1]	N/A	A	B	A
Sodium Bicarbonate (Baking Soda)	A	A	A	A	A	D	D	A	A	C	B	A	A	B	B	A	A	A[1]	A	A	A	A	A[1]	A	A	A	A	A	A	B	A
Sodium Bisulfate, 10%	D	C	A	B	A	D	D	A[1]	B	D	B	A[1]	A	B	C	A[1]	B	A[1]	A	A	A	A	A	A	A	A[1]	A	A	A	B	A
Sodium Bisulfite	B	B	A	C	A	D	D	B	A	D	B	A[1]	A	B	B	N/A	B	A[1]	A	A	A	C	A	A	A	A[1]	A	A	A	B	A
Sodium Bromide	C	C	B	A	A	D	N/A	A	N/A	C	D	A[1]	A	B	N/A	A	A	A[1]	A	A	A[1]	B	A	A	A	B[1]	A[1]	N/A	A	B[1]	A
Sodium Carbonate	A	A	B	A	B	D	B	A[1]	A	B	A	A[1]	A	A	B	A	A	B[1]	A	A	A	B	A[1]	A	A	A[1]	A	A	A	B	A
Sodium Chlorate	A	B	A	A	A	C	N/A	B	B	B	B	A	A	B	N/A	N/A	B	B[1]	A	A	A	D	A	A	A	A	A	C	A	B	A
Sodium Chloride	B	B	A	A	A	C	D	B	A	D	B	A[1]	A	A	A	A	A	A[1]	A	A	A	A	A[1]	A	A	A[1]	A	A	A	B	A
Sodium Hydroxide, 80%	C	B	A	D	A	D	D	C	D	D	D	A	B	A	D	A	C	D	A	B	A	C	D	A	A	A	A	A	D	A	D
Sodium Hypochlorite, <20%	C	C	B	D	A	D	D	C	B	D	D	A	B	A	A	A	A	A	C	C	A	D	C	A	A	A	A	B	C	C	A
Sodium Hypochlorite, 100%	D	D	D	D	N/A	D	D	C	D	D	D	C	B	B	D	A	C	B[1]	C	C	A	D	D	B	A	B	A	B	C	N/A	A
Sodium Hydrosulfite (Sodium Dithionite)	N/A	N/A	N/A	N/A	A	A	N/A	N/A	C	N/A	N/A	C	B	A	N/A	N/A	N/A	N/A	C	B	N/A	A	N/A	N/A	A	C	N/A	C	N/A	A	B
Sodium Nitrate	B	B	A[1]	A	A	B	B	B	A	B	D	A	A	B	B	A	B	A[1]	B	B	A	A	D	A	A	A	A	D	A	B	A
Sodium Perborate	B	B	A	B	A	C	D	B	B	C	B	A	A	B	B	A	A	A	B	B	A	B	A	A	A	A	N/A	B	N/A	N/A	A
Sodium Peroxide	A	A	A[1]	D	C	C	D	A	B	C	B	A	A	B	B	A	B	A	B	B	N/A	A	A	B	A	B	A	D	N/A	N/A	A
Sodium Polyphosphate	B	B	N/A	B	N/A	D	D	B	A	D	A	A	A	A	N/A	A	B	A	C	B	A	A	N/A	A	A	A	A	D	A	N/A	A
Sodium Silicate (Water Glass)	A	B	A[1]	C	A	A	D	B	A	B	B	A	A	B	A	A	A	A[1]	A	A	A	A	A	A	A	A	A	A	A	B	A
Sodium Sulfate (Salt Cake, Thenardite)	B	B	A[1]	B	A	A	B	B	A	B	B	A	A	B	A	A	A	A[1]	B	A	A	A	A[1]	A	A	A	A	A	A	N/A	A
Sodium Sulfide	B	D	A[1]	B	A	D	D	B	A	C	D	A	A	B	A	A	B	A	B	A	A	A	D	A	A	A	A	A	A	B	A
Sodium Sulfite	B	A	A[1]	A	A	C	D	B	A	A	D	A	A	B	A	A	B	B	B	A	A	D	A	A[1]	A	A	A	A	A	A	A
Sodium Thiosulfate (hypo)	A	B	A[1]	C	B	A	D	A	B	C	D	A	A	A	N/A	A	A	A	B	A	A	B	D	A[1]	A	A	A	A	A	N/A	A
Starch	A	A	A[1]	A	A	A	A	B	A	C	N/A	A	A	N/A	B	A	A	B	A	A	A	A	A	A	A	A	A	N/A	N/A	N/A	A
Stearic Acid	B	A	A[1]	A	A	B	D	B	B	C	D	B	B	B	C	N/A	A	B	C	B	A	A[1]	A	A[1]	A	B	A	B	A	B	A
Stoddard's Solvent	A	A	B	A	A	A	A	A	A	A	A	C	D	A	A	A	N/A	C[1]	D	C	D	A	A[1]	C	A	C	A	D	A	C	A
Styrene (Vinylbenzene) $C_6H_5CHCH_2$	A	A	N/A	A	D	A	A	A	D	A	B	D	D	D	D	N/A	N/A	N/A	D	D	A	A	D	N/A	A	D	A	D	N/A	N/A	B
Sulfite Liquors	B	B	N/A	D	N/A	D	D	B	A	C	D	B	A	B	N/A	N/A	A	A[1]	B	B	N/A	B	N/A	A	A	B	A	B	N/A	N/A	A
Sulfur Dioxide	D	A	D	B	D	B	D	B	D	N/A	B	A	A	C	C	A	D	B	N/A	B	A	C	B	A	A	A	A	B	A	C	A
Sulfur Dioxide Gas, dry	D	A	A	B	B	B	D	B	D	A	A	A	A	B	C	A	A	A	C	D	A	B	A	A	A	A	A	B	A	C	A

It is the sole responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or product damage.

Conditions are based on ambient or room temperature unless otherwise noted, about 64°F (18°C) to 73°F (23°C).

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Chemical Compatibility Chart

Ratings -- Chemical Effect
A = Excellent.
B = Good -- Minor Effect, slight corrosion or discoloration.
C = Fair -- Moderate Effect, not recommended swelling may occur.
D = Severe Effect, not recommended for ANY use.
N/A = Information Not Available.
All data are based on ambient or room temperature conditions, about 64° F (18° C) to 73° F (23° C).

Explanation of Footnote
1. Satisfactory to 120°F (48° C)

	304 Stainless Steel	316 Stainless Steel	ABS Plastic	Acetal (Delrin), POM	Acrylic (PMMA)	Aluminum	Brass	Bronze	Buna N (Nitrile)	Cast Iron	Copper	CPVC	EPDM	Hastelloy® - C	Hytrel® (TPE)	Kel-F® (PCTFE)	HDPE	LDPE	Natural Rubber	Neoprene (CR)	Noryl® (PPO)	Nylon (PA)	Polycarbonate (PC)	Polypropylene (PP)	PTFE	PVC	PVDF (Kynar®)	Silicone (VMQ)	Titanium	Tygon	Viton® (FKM)
Sulfur Dioxide Gas, wet	A	C	A	B	D	A	D	C	D	B	D	A	C	B	X	N/A	D	A	C	D	D	D	A	C	A	A	A	B	N/A	A	A
Sulfur Trioxide, dry	D	A	N/A	D	N/A	A	A	B	D	A	B	A	C	B	X	N/A	A	C	C	D	D	A	N/A	D	A	A	C	B	D	B	A
Sulfuric Acid, <10%	D	B	B	D	A	D	D	B	A	C	D	A	A	B	A	A	A	A	A	B	A	C	A	A[1]	A	A	A	C	D	B	A
Sulfuric Acid, 10-75%	D	D	B	D	D	D	D	B	B	D	D	A	B	B	X	A	A	A	C	B	A	D	B	A	A	A	A	D	D	N/A	A
Sulfuric Acid, 75-100%	C	D	A	D	D	D	D	B	C	D	D	C	B	B	C	A	B	B	D	D	A	D	D	C	A	D	A	D	D	D	A
Sulfuric Acid, cold concentrated	C	B	D	D	D	B	D	B	D	D	D	D	C	A	B	A	B	C	D	D	A	D	N/A	A[1]	A	D	A	D	D	D	B
Sulfurous Acid, 10%	B	B	N/A	C	A	B	D	B	B	D	D	A	B	B	C	A	B	B[1]	B	C	A	D	D	A	A	A	A	D	A	B	A
Tannic Acid, 10%	B	A	A	B	A	C	B	B	A	C	A	A	A	B	A	A	A	B[1]	A	A	A	C	C	A	A	A	B	B	A	B	A
Tetrachloroethane	B	A	D	A	D	C	C	N/A	D	A	A	C	D	A	N/A	A	D	N/A	D	D	D	C	D	C	A	C	A	D	A	N/A	A
Toluene (Toluol)	A	A	D	C	D	A	A	A	D	A	A	D	D	A	B	B	D	C	D	D	D	A	D	C	A	D	A	D	A	D	C
Trichloracetic Acid	D	C	N/A	N/A	C	D	N/A	N/A	C	D	D	N/A	B	B	D	A	C	A	C	D	N/A	C	D	A	A	B	B	D	D	C	C
Trichloroethylene	B	B	D	D	D	D	N/A	B	D	C	A	D	D	A	C	A	D	D	D	D	D	C	D	C	A	D	B	D	A	N/A	A
Triethylamine	A	A	N/A	D	A	N/A	N/A	C	C	A	A	A	A	N/A	N/A	A	N/A	N/A	B	A	B	A	D	D	A	B	A[1]	N/A	N/A	A	D
Trisodium Phosphate	B	B	B	A	B	D	A	A	A	N/A	B	A	A	A	A	N/A	A	A	A	A	A	A	A	A	A	A	A	A	N/A	A	A
Turpentine (C0H16)	A	A	D	A[1]	B	A	D	A	A	N/A	B	A	D	B	B	A	B	D	D	D	D	B	D	D	A	D	A	D	B	B	A
Urea	B	B	B	A	A	B	N/A	B	B	N/A	D	A	A	B	B	N/A	A	A	N/A	B	A	A	D	A	A	D	A	B	A	B	A
Varnish	A	A	N/A	A	N/A	A	A	B	B	C	B	D	D	A	N/A	A	B	A	D	D	D	A	D	A	A	D	A	D	N/A	D	A
Vegetable Juice	A	A	B	A	N/A	D	A	A	A	D	A	N/A	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A	A	N/A	A	N/A	N/A	B	N/A	A	A
Vinegar	A	A	A	B	A	D	D	A	B	D	B	A	A	A	C	A	A	A	B	B	B	A	A	A[1]	A	A	B	B	A	A	A
Water, Deionized	A	A[1]	A[1]	N/A	A	A	A	N/A	A	D	B	A	A	A	N/A	A	A	N/A	A	A	A	A	N/A	A[1]	A	A	A[1]	N/A	A	A	A
Water, Distilled	A	A	B	B	A	A	A	A	A	D	B	A	A	A	N/A	A	A	A[1]	A	A	A	A	A[1]	A	A	A	A	C	A	B	A
Water, Fresh	A	A	A	A[1]	A	B	B	A	A	D	B	A	A	A	A	A	A	A[1]	A	A	A	A	A[1]	A	A	B	A	B	A	B	A
Water, Salt	B	B	A[1]	A	A	B	D	A	A	D	B	A	A	A	A	A	A	A[1]	A	A	A	A[1]	A[1]	A	A	B	A	B	A	B	A
Weed Killers	A	A	N/A	A	N/A	D	N/A	N/A	A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	N/A	A	N/A	C	N/A	N/A	N/A	A	N/A	N/A	A
Whiskey and Wines	A	A	C	A	A	C	B	A	A	D	B	A	A	N/A	B	A	B	C	A	C	A	A	A	A	A	A	A	A	A	C	A
Xylene (Xylol, Dimethylbenzene)	B	B	D	A	D	A	A	A	D	B	A	D	D	A	B	A	D	B	D	D	B	A[1]	D	B	A	D	A	D	A	D	B
Zinc Chloride, 10%	B	B	A	C	B	D	D	B	A	D	C	A	A	B	A	A	A	A	A	A	A	A	A	A	A	B	A	B	A	A	A
Zinc Sulfate, 10%	B	A	A	C	B	D	B	B	A	D	B	A	A	A	D	A	A	A[1]	B	A	A	A	A[1]	A	A	A	A	A	A	A	A

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