

Chemical Resistance Guide

WADE

This chemical resistance selection chart is intended for use as a guide only. These recommendations are not to be construed as a warranty as to material suitability, performance or service life for any particular application.

CAUTION: These recommendations are intended as a guide only. Many factors such as concentration, exposure time, fluid and ambient temperature, pressure, contaminants, etc., have a bearing on the suitability of any material for specific application.

RESISTANCE RATING KEY:

E = Excellent G = Good C = Conditional U = Unsatisfactory - = Test Data Not Available

AGENT	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM	AGENT	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM
Acetaldehyde	U	C	E	E	C	G	G	Ammonium Phosphate, Mono-Di-Tri	E	E	E	E	C	C	G
Acetamide	E	G	E	E	U	U	-	Ammonium Sulfate	E	E	E	G	C	G	G
Acetic Acid (Up to 10%, 100°F Max.)	G	E	C	E	U	C	G	Ammonium Sulfide	E	E	-	E	U	U	C
Acetic Acid (10-50%, 100°F Max.)	G	G	G	E	U	C	G	Ammonium Thiocyanate	E	E	-	G	-	-	-
Acetic Acid, Glacial (100°F Max.)	U	U	G	E	U	C	G	Amyl Acetate	U	U	E	E	C	C	G
Acetic Anhydride	U	G	E	E	G	C	G	Amyl Alcohol	G	G	U	E	C	E	G
Acetone	U	U	U	E	E	E	E	Amyl Borate	E	E	-	-	-	-	-
Acetonitrile	G	-	-	-	-	-	-	Amyl Chloride	U	U	E	G	-	E	U
Acetaphenone	U	U	-	-	-	-	-	Amyl Chloronaphthalene	U	U	-	-	-	-	-
Acrolein, (40%, 120°F)	-	-	-	G	G	G	E	Amyl Naphthalene	U	U	-	-	-	-	-
Acrolein, (100%, 200°F)	-	-	-	G	G	G	G	Aniline	U	U	C	E	C	C	C
Acrylic Resin	-	G	-	-	-	-	-	Aniline Dyes	U	G	-	E	C	C	C
Acrylonite	U	U	-	E	C	E	G	Aniline Hydrochloride	G	U	-	-	-	-	-
Acrylonitrile	U	U	E	E	E	E	G	Aniline Oil	U	U	E	E	E	E	C
Adipic Acid	E	-	-	G	-	-	G	Animal Fats	E	G	E	E	E	-	-
Allyl Alcohol, (up to 96%)	E	E	-	E	E	G	C	Animal Oil, (Lard Oil)	E	G	E	E	E	E	E
Allyl Chloride	U	-	-	-	-	-	-	Anthraquinone	U	U	-	-	-	-	-
Alums, NH ,Cr,K,Na	E	E	-	E	U	U	G	Anthraquinone Sulfonic Acid	U	U	-	-	-	-	-
Aluminum Acetate	G	G	-	E	U	U	C	Antimony Trichloride	U	U	E	U	-	-	U
Aluminum Bromide	E	E	-	-	-	-	-	Apple Juice	E	E	-	G	U	C	G
Aluminum Chloride	E	E	E	C	U	U	U	Aqua Regia	U	U	U	U	-	U	U
Aluminum Fluoride	E	E	G	C	U	-	G	Arochlor 1248	C	U	E	G	-	-	E
Aluminum Hydroxide	G	E	G	C	E	C	G	Arochlor 1254	C	U	-	-	-	-	-
Aluminum Nitrate	E	E	-	C	U	U	U	Arochlor 1260	U	U	-	-	-	-	-
Aluminum Phosphate	E	E	-	-	-	-	-	Aromatic Solvents	U	U	E	E	G	E	E
Aluminum Salts	E	E	-	-	-	-	-	Arsenic Acid, (up to 75%)	E	E	E	E	U	U	U
Aluminum Sulphate	E	E	E	G	U	CG		Arylsulfonic Acid	U	U	-	-	-	-	-
Ammonia Liquid	G	E	E	E	E	U	C	ASTM Oil #1	E	E	E	E	E	E	E
Ammonium Alum	E	E	-	-	-	-	-	ASTM Oil #2	E	G	E	E	E	E	E
Ammonium Bifluoride	G	-	E	E	-	-	U	ASTM Oil #3	E	U	E	E	E	E	E
Ammonium Carbonate	U	E	E	E	C	G	C	ASTM Ref Fuel A	E	G	E	E	E	E	E
Ammonium Chloride	E	E	E	C	U	U	C	ASTM Ref Fuel B	E	U	E	E	E	E	E
Ammonium Diphosphate, (Up to 10% and 70°F)	-	-	-	G	G	C	U	ASTM Ref Fuel C	G	U	E	E	E	E	E
Ammonium Diphosphate, (Up to 10% and 200°F)	-	-	-	G	-	U	U	Bardol B	U	U	-	-	-	-	-
Ammonium Fluoride	-	-	-	G	-	-	-	Barium Carbonate	E	E	E	E	G	G	G
Ammonium Hydroxide	U	E	E	E	E	U	C	Barium Chloride	E	E	E	E	C	G	U
Ammonium Nitrate	E	G	E	E	E	U	G	Barium Cyanide	C	E	E	G	G	U	U
Ammonium Persulfate, (Up to 10%)	U	E	E	E	U	E	C	Barium Hydroxide	E	E	E	E	C	G	U
								Barium Nitrate	E	E	E	E	E	U	G
								Barium Sulfate	E	E	C	E	C	C	U
								Barium Sulfide	E	E	G	E	C	C	U
								Beer	E	E	E	E	U	E	E

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Beet Sugar Liquors	E	E	E	E	E	E	E	Carbolic Acid, Phenol	U	U	C	G	U	E	G
Benzaldehyde	U	U	E	E	G	E	G	Carbonated Beverages	G	G	-	G	G	G	G
Benzene	U	U	C	E	G	G	G	Carbonated Water	E	E	-	E	E	G	E
Benzene, (Benzol)	U	U	U	E	G	E	G	Carbon Bisulfide	U	U	E	G	G	G	G
Benzene Sulfonic, (Aromatic Acid)	U	G	-	G	-	-	-	Carbon Dioxide, Wet	E	G	E	F	F	E	G
Benzine	E	C	C	E	G	G	G	Carbon Disulfide	U	U	C	E	G	C	C
Benzoic Acid	U	U	E	G	U	C	G	Carbon Monoxide	E	G	E	E	U	C	E
Benzyl Acetate	-	-	-	G	E	-	E	Carbon Tetrachloride	C	U	E	G	C	E	U
Benzyl Alcohol	U	G	E	E	E	E	G	Carbonic Acid	E	E	G	E	U	U	G
Benzyl Benzoate	U	U	-	-	-	-	-	Casein	G	G	-	G	C	C	C
Benzyl Chloride	U	U	-	-	E	-	-	Castor Oil	E	E	E	E	G	E	E
Beryllium Sulfate	G	G	-	G	G	G	G	Caustic Potash	G	G	E	G	C	U	U
Black Liquor, (Sodium Bisulfite)	E	E	E	E	C	C	E	Cellosolve	U	U	-	-	-	-	-
Black Sulphate Liquor	G	G	E	E	C	C	G	Cellosolve Acetate	U	U	-	-	-	-	-
Bleach, (12% Active Cl ₂)	U	U	-	-	-	-	-	Cellosolve, (Alcohol Ether)	U	U	-	-	-	-	-
Bleaching Water	-	-	-	G	U	U	U	Cellosolve Butyl	U	U	-	-	-	-	-
Bleaching Powder, Wet	U	E	-	C	-	G	-	China Wood, Oil, Tung Oil	E	G	-	E	C	C	-
Boric Acid	E	E	E	E	U	G	U	Chloroacetic Acid	U	U	G	U	U	U	C
Brake Fluid	U	C	-	G	G	G	G	Chloralhydrate	U	U	-	-	-	-	-
Brine	E	E	-	G	U	-	U	Chloric Acid, (up to 20%)	U	U	-	C	-	-	U
Bromine	U	U	U	U	U	C	U	Chlorinated Salt Brine	U	U	-	-	-	-	-
Bromine Water	U	U	U	U	U	C	U	Chlorinated Solvents	U	U	-	G	C	C	-
Bunker Oil, (Fuel Oil)	E	C	-	E	G	G	E	Chlorine, Water	U	U	E	C	U	U	U
Butadiene	U	G	E	E	C	C	E	Chloroacetone	U	G	-	-	-	-	-
Butric Acid	E	E	-	G	U	U	C	Chlorobenzene	U	U	E	E	G	G	G
Butyl Acetate	U	U	G	C	E	E	G	Chlorobromomethane	U	U	-	G	C	G	C
Butyl Acetyl Ricinoleate	G	G	-	-	-	-	-	Chloronapthalene	U	U	-	-	-	-	-
Butyl Alcohol (Butanol)	E	E	E	E	U	G	G	Chloro Nitro Ethane	U	U	-	-	-	-	-
Butyl, (Cellosolve Adipate)	U	U	-	-	-	-	-	Chlorophyll	G	G	-	G	G	G	G
Butyl Stearate	G	U	-	-	-	-	-	Chlorosulfonic Acid	U	U	C	G	U	U	C
Butylene	G	C	E	E	E	E	E	Chlorotoluene	U	U	-	-	-	-	-
Butyne Diol	U	U	-	-	-	-	-	Chlorox	G	G	E	E	U	E	C
Butyraldehyde	C	U	-	G	-	-	-	Chrome Alum	E	E	-	-	-	-	-
Calcium Acetate	G	G	-	-	-	-	-	Chrome Plating Solutions	U	U	U	U	-	U	E
Calcium Bicarbonate	-	-	-	G	G	G	G	Chromic Acid, (Up to 50%)	U	U	C	G	U	U	U
Calcium Bisulfate	G	E	E	E	U	U	U	Chromic Acid, (Greater than 50%)	U	U	-	C	C	U	U
Calcium Bisulfide	G	E	E	G	-	C	C	Chromium Sulfate	G	G	-	G	U	C	G
Calcium Bisulfite	E	E	E	E	U	C	C	Cider	E	E	E	E	U	E	G
Calcium Carbonate	E	E	E	G	U	C	U	Citric Acid	E	E	E	E	U	U	C
Calcium Chlorate	G	G	E	G	C	U	G	Citrus Juices	E	E	-	G	U	G	C
Calcium Chloride	E	E	E	C	C	G	C	Coconut Oil	E	G	E	E	E	E	E
Calcium Hydroxide, (Lime)	E	E	E	E	E	U	C	Cod Liver Oil	E	G	E	E	-	E	E
Calcium Hypochloride	U	U	-	-	-	-	-	Coffee	E	E	-	E	U	E	E
Calcium Hypochlorite	U	C	E	C	U	U	C	Cooking Oil	E	G	-	E	G	G	G
Calcium Nitrate	E	E	-	G	-	G	-	Copper Acetate	C	C	-	E	U	U	U
Calcium Phosphate	G	G	-	G	C	C	U	Copper Carbonate	-	-	-	E	-	-	U
Calcium Sulfate	E	E	E	G	C	C	G	Copper Chloride	E	E	E	U	U	U	U
Calcium Sulfide	E	E	-	-	-	-	-	Copper Cyanide	E	E	G	E	U	C	U
Calcium Silicate	G	G	-	G	C	C	U	Copper Nitrate	E	E	E	G	U	U	U
Caliche Liquors	E	E	-	E	-	-	-	Copper Sulfate	E	E	E	G	U	U	U
Camphor	G	G	-	G	C	C	C	Corn Oil	E	E	E	E	E	C	E
Cane Sugar Liquors	E	E	E	E	E	G	G	Cotton Seed Oil	E	E	E	E	E	E	E
Carbitol	G	G	-	-	-	-	-	Creosote (Wood or Coal Tar)	E	G	E	E	C	C	G

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AGENT	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM	AGENT	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM
Cresol	U	U	E	E	C	C	G	Ethanolamine	G	G	E	E	-	E	G
Cresylic Acid	U	U	-	G	U	C	C	Ethers	U	U	E	E	G	G	E
Crude Oil, Sour	E	G	-	E	C	C	G	Ethyl Acetate	U	U	C	G	E	E	G
Crude Oil, Sweet	E	G	-	E	G	G	E	Ethyl Acetoacetate	U	U	-	-	-	-	-
Cupric Sulphate	E	E	-	-	-	-	-	Ethyl Acrylate	U	U	-	-	-	-	-
Cyanide Plating Solutions	G	G	-	G	U	U	U	Ethyl Alcohol (Ethanol)	E	E	E	E	E	E	G
Cyclohexane, (Alicyclic Hydrocarbon)	E	U	E	E	E	U	E	Ethyl Benzene	U	U	-	-	-	-	E
Cyclohexanol	G	G	-	-	-	-	-	Ethyl Bromide	G	U	-	G	G	E	G
Cyclohexanone	U	U	-	G	-	-	-	Ethyl Cellosolve	U	U	-	-	-	-	-
Cymene	U	U	-	-	-	-	-	Ethyl Chloride	E	G	E	E	C	E	G
Deionized Water	E	C	E	E	U	U	E	Ethyl Dichloride	U	U	-	G	-	-	-
Detergents, Synthetic	G	G	-	G	G	G	G	Ethyl Ether	C	U	-	-	-	-	-
Developing Solutions, (Hypos)	E	E	E	E	U	U	C	Ethyl Formate	U	G	-	-	-	-	-
Dextrin	G	G	-	G	G	G	G	Ethyl Mercaptan	U	U	-	-	-	-	-
Diacetone Alcohol	U	E	E	E	E	E	E	Ethyl Oxalate	U	C	-	-	-	-	-
Dibenzyl Ether	U	U	-	-	-	-	-	Ethyl Pentochlorobenzene	U	U	-	-	-	-	-
Dibutyl Phthalate	U	U	-	-	-	-	-	Ethyl Silicate	E	E	-	-	-	-	-
Dichloroethane	U	U	-	C	C	-	-	Ethyl Sulfate	G	G	E	G	-	E	-
Dichloroethyl Ether	U	U	-	G	G	G	G	Ethylene Chloride	U	U	G	E	-	-	C
Dichlorobenzene	U	U	-	-	-	-	-	Ethylene Chlorohydrin	U	G	-	-	-	-	-
Dicyclohexylamine	C	U	-	-	-	-	-	Ethylene Diamine	E	E	-	-	-	-	-
Diesel Oil	E	C	E	E	G	E	E	Ethylene Dichloride, (Dichloroethane)	U	U	C	E	E	C	G
Diethyl Benzene	U	U	-	G	-	-	-	Ethylene Glycol	E	E	C	E	E	E	G
Diethyl Ether	U	U	-	-	-	-	-	Ethylene Oxide	U	U	E	E	U	E	G
Diethyl Sebacate	U	U	-	-	-	-	-	Fatty Acids	G	G	E	E	C	C	E
Diethyl Sulfate	C	C	-	G	G	G	G	Ferric Chloride, (Up to 15%)	E	E	E	C	U	U	U
Diethylamine	C	G	E	G	G	E	G	Ferric Chloride, Saturated	E	G	E	C	U	U	U
Diethylene Glycol	E	E	C	E	E	E	G	Ferric Nitrate	E	E	E	G	-	U	C
Di-Isopropyl Ketone	U	U	-	-	-	-	-	Ferric Sulfate	E	E	E	E	U	U	C
Dimethyl Aniline	U	U	-	-	-	-	-	Ferrous Ammonium Citrate	-	-	-	G	-	-	G
Dimethyl Ether	U	U	-	-	-	-	-	Ferrous Ammonium Sulfate, (To 30%)	G	G	E	G	U	U	E
Dimethyl Formamide	G	U	-	E	G	G	G	Ferrous Chloride	E	E	E	U	U	G	U
Dimethyl Phthalate	U	U	-	-	-	-	-	Ferrous Sulfate	E	E	E	G	U	G	C
Dimethylamine	G	G	-	-	-	-	-	Ferrous Sulfate, Saturated	C	C	E	E	C	C	C
Diocyl Phthalate	U	U	-	-	-	-	-	Fertilizer Solutions	G	G	-	G	G	C	G
Dioxane	U	U	-	-	E	-	-	Fish Oils	E	G	G	E	G	G	C
Dioxolane	U	U	-	-	-	-	-	Fluoboric Acid	E	E	E	C	U	U	U
Dipentene, (Terpene-Hydrocarbon)	G	U	-	-	-	-	-	Fluorine, Gas, Wet	U	U	U	C	U	U	U
Diphenyl	U	U	-	-	-	-	-	Fluorobenzene	U	U	-	-	-	-	-
Diphenyl Oxides	U	U	E	G	E	E	G	Fluosilicic Acid	E	E	C	G	U	U	C
Dipropylene Glycol	E	E	E	E	G	-	-	Formaldehyde, Cold	G	C	E	E	G	E	E
Disodium Phosphate	G	G	-	G	-	-	G	Formaldehyde, Hot	G	G	-	C	U	G	G
Dowtherm A	U	U	E	E	G	-	-	Formamide	E	E	-	-	-	-	-
Dowtherm E	U	U	E	E	G	-	-	Formic Acid, Cold	U	G	C	G	U	G	U
Dowtherm SR1	G	-	E	E	G	-	-	Formic Acid, Hot	U	E	-	G	U	G	U
Drilling Mud	E	C	-	E	G	G	G	Fructose	E	E	E	E	U	C	E
Dry Cleaning Fluids	U	U	-	E	G	C	E	Fruit Juices	E	E	E	E	U	G	G
Drying Oil	E	G	-	G	G	C	C	Fuel Oil	E	G	E	E	E	E	C
Enamel	G	G	-	-	-	E	-	Fumaric Acid	E	G	-	-	-	-	-
Epsom Salts, (MgSo4)	E	E	E	G	C	G	E	Furan	U	U	E	E	E	E	E
Ethane	E	G	-	G	C	G	A	Furfural	U	U	E	G	E	E	E

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	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE		ALUMINUM	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM
Fyrquel 150, 220, 300, 550	U	U	-	-	-	-	-	Isopropyl Ether	G	C	U	E	G	E	E
Gallic Acid	G	G	-	E	U	E	E	Jet Fuel, (JP-3, JP-4, JP-5, JP-6)	E	C	E	E	E	E	E
Gasoline, Leaded	G	C	E	E	E	E	E	Kerosene	E	C	E	E	E	E	E
Gasoline, Unleaded	C	C	E	E	G	E	E	Ketchup	E	-	-	E	U	U	-
Gasoline, Aviation	C	C	E	E	G	E	E	Ketones	U	U	C	E	E	E	E
Gasoline, Sour	C	C	E	E	G	U	G	Lacquers, (and Solvents)	U	U	E	E	C	E	E
Gasoline, Motor	C	C	E	E	G	E	E	Lactic Acid, Cold	E	E	G	G	U	C	G
Gelatin	E	E	G	E	U	E	G	Lactic Acid, Hot	U	U	G	G	U	C	G
Glauber's Salt	U	G	-	E	G	G	-	Lactose	G	C	-	G	C	G	G
Glucose	E	E	G	E	E	E	E	Lard Oil	E	G	G	E	E	E	E
Glue	E	E	E	E	E	E	C	Latex,							
Glycerin	E	E	E	E	E	E	E	(1% Styrene and Butadiene)	G	C	E	E	-	E	E
Glycerol	E	E	E	E	E	E	E	Lauryl Chloride	U	U	-	-	-	-	-
Glycol	E	E	-	E	G	G	E	Lavender Oil	G	U	-	-	-	-	-
Glycol Amine	E	C	-	G	G	U	C	Lead Acetate	G	G	E	G	E	E	U
Glycolic Acid	E	E	E	E	-	-	-	Lead Nitrate	E	E	-	G	-	-	-
Grease	E	E	E	E	E	E	E	Lead Sulfamate	G	E	E	C	-	-	C
Green Sulfate Liquor	G	G	-	E	G	U	U	Lead Sulfate	E	E	-	-	-	-	-
Halowax Oil	U	U	-	-	-	-	-	Lecithin	U	U	-	G	C	C	C
Heptane	E	G	E	E	E	E	E	Lime Bleach	E	G	E	E	E	E	U
Hexaldehyde	U	E	-	-	-	-	-	Lime and H2O	E	G	E	E	E	E	U
Hexane	E	G	G	E	E	E	E	Linoleic Acid	G	U	-	-	-	-	-
Hexanol, Tertiary	G	U	-	E	E	E	E	Linseed Oil	E	G	E	E	E	E	G
Hexyl Alcohol	E	G	E	E	G	E	E	Lubricating Oils, (Petroleum)	E	G	E	E	E	E	E
Hexylene Glycol	E	E	-	-	-	-	-	Lubricating Oil, Refined (Petroleum)	E	G	E	E	E	E	E
Hydraulic Oil, (Petroleum Base)	E	G	E	E	G	E	E	Lubricating Oil, Sour (Petroleum)	U	U	-	-	-	-	-
Hydrazine	C	C	E	G	U	U	C	Lubricating Oil, (Up to 180°F)	E	C	E	E	E	E	E
Hydrobromic Acid, (Up to 40%)	U	E	C	U	U	U	U	Lubricating Oil, (180 F to 200°F)	G	C	E	E	E	E	E
Hydrochloric Acid,								Ludox	G	G	-	G	G	U	U
(Up to 36%, 75°F)	G	G	E	U	U	U	U	Lye Solution	G	G	-	-	-	-	-
Hydrochloric Acid,								Magnesium Bisulfate	G	G	-	E	G	G	G
(Up to 36%, 158°F)	U	U	E	U	U	U	U	Magnesium Bisulfide	G	G	-	G	U	U	C
Hydrocyanic Acid	G	G	E	G	U	U	G	Magnesium Carbonate	G	G	E	E	G	G	G
Hydrofluoric Acid,								Magnesium Chloride	E	E	E	E	U	C	U
(Up to 75%, 75°F Max.)	U	U	G	U	U	U	U	Magnesium Hydroxide	G	G	E	E	E	E	C
Hydrofluosilicic Acid	G	G	C	C	U	U	U	Magnesium Hydroxide, Hot	G	G	-	E	G	U	U
Hydrogen Peroxide, (Up to 50%)	U	U	G	G	U	G	E	Magnesium Nitrate	E	G	E	E	U	U	C
Hydrogen Peroxide, (Up to 90%)	U	U	E	G	U	U	E	Magnesium Oxide	E	E	E	E	E	E	-
Hydrogen Phosphide	U	U	-	-	-	-	-	Magnesium Sulfate	E	E	E	G	E	C	G
Hydrogen Sulfide, Wet	U	G	E	G	U	U	U	Maleic Acid	U	U	E	G	E	E	G
Hydroquinone	C	U	-	-	-	-	-	Maleic Anhydride	U	U	E	-	-	-	E
Hypo, (Sodium Thiosulfate)	E	E	-	G	C	C	G	Malic Acid	E	G	-	E	-	E	G
Hypochlorous Acid, Dilute	U	U	-	-	-	-	-	Malt Beverages	E	E	-	E	-	-	-
Inks	E	E	E	E	U	C	C	Manganese Carbonate	G	-	-	G	-	-	B
Iodine	C	U	C	C	U	E	E	Manganese Sulfate	G	G	-	E	U	G	G
Iodoform	-	E	-	E	C	C	C	Meat Juices	G	G	-	E	-	U	G
Iso-Butane	G	U	-	G	-	-	-	Melamine Resins	G	G	E	C	U	U	-
Iso-Octane, (100°F Max.)	E	C	E	E	G	E	E	Mercuric Chloride	E	E	E	C	U	U	U
Isobutyl Alcohol	G	E	-	-	-	-	-	Mercuric Cyanide	G	G	E	G	-	U	U
Isododecane	E	G	-	-	-	-	-	Mercurous Nitrate	G	-	-	E	-	-	-
Isopropyl Acetate	U	U	E	E	-	G	G	Mercury	E	E	E	E	E	U	C
Isopropyl Alcohol (Isopropanol)	G	G	E	E	G	E	G	Mesityl Oxide	U	U	-	-	-	-	-
Isopropyl Chloride	U	U	-	-	-	-	-	Methane	E	G	-	E	G	E	E

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Chemical Resistance Guide

WADE

AGENT							AGENT								
	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE		ALUMINUM	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM
Methyl Acetate	U	G	U	E	-	E	E	Olive Oil	E	G	E	E	G	E	E
Methyl Acetone	U	U	-	E	E	E	E	Oxalic Acid	G	G	E	G	C	E	G
Methyl Alcohol (Methanol)	E	E	G	E	E	E	E	Paints & Solvents	U	U	-	E	E	E	E
Methyl Bromide, (100%)	G	U	-	G	U	C	C	Palm Oil	G	G	E	E	C	G	E
Methyl Cellulose	G	G	-	E	-	-	-	Paper Pulp	G	G	-	E	G	G	U
Methyl Chloride	U	U	E	E	E	C	U	Paraffin	E	C	E	E	G	E	E
Methyl Cyclopentane	U	U	-	-	-	-	-	Paraformaldehyde	G	G	-	G	G	G	G
Methyl Ethyl Ketone	U	U	C	E	E	E	E	Pentane	E	G	E	C	G	C	E
Methyl Formate	U	G	-	-	-	-	-	Perchloric Acid	U	G	-	-	-	-	-
Methyl Isobutyl Ketone	U	U	C	E	E	C	E	Perchloroethylene	C	U	U	E	E	U	G
Methyl Isobutyl Carbinol	E	E	-	-	-	-	-	Phenylbenzene	U	U	-	-	-	-	-
Methyl Methacrylate	U	U	E	-	-	-	-	Phenyl Ethyl Ether	U	U	-	-	-	-	-
Methyl Salicylate	U	U	-	-	-	-	-	Phosphate Ester, (10%)	U	E	-	E	E	U	U
Methylamine	U	U	-	E	G	U	E	Phosphoric Acid, (50%, Cold)	G	G	G	U	U	U	U
Methylene Chloride	U	U	E	G	E	E	E	Phosphoric Acid, (50%, Hot)	G	G	G	U	U	U	U
Methylene Dichloride	U	U	-	-	-	-	-	Phosphoric Acid, (85%, Cold)	C	C	-	E	G	U	U
Milk	E	E	E	E	U	C	E	Phosphoric Acid, (85%, Hot)	C	C	-	G	C	U	U
Mineral Oils	E	G	E	E	E	E	E	Phosphorous Anhydride	U	U	-	E	-	-	E
Mineral Spirits	E	C	-	G	G	G	E	Phosphorous Trichloride	U	U	-	-	-	-	-
Mixed Acids, (Cold)	U	U	-	G	C	U	U	Photographic Solutions	-	-	E	E	U	U	C
Molasses, Crude	E	E	E	E	E	E	G	Phthalic Acid	C	C	-	G	C	G	G
Molasses, Edible	E	E	E	E	C	E	E	Phthalic Anhydride	-	-	-	E	C	G	E
Monobromobenzene	U	U	-	-	-	-	-	Picric Acid	G	G	E	G	U	U	E
Monochlorobenzene	U	U	-	-	-	-	-	Pinene	G	C	-	-	-	-	-
Monomethylether	U	U	-	-	-	-	-	Pine Oil	G	U	E	E	C	U	E
Morpholine	U	U	-	E	G	G	G	Pineapple Juice	E	E	-	E	C	C	E
Naptha	G	C	E	E	E	G	E	Piperidine	U	U	-	-	-	-	-
Napthalene	U	U	E	E	E	C	G	Plating Solutions, Chrome	C	U	U	U	-	U	E
Naphthenic Acid	G	U	-	E	-	-	-	Polyvinyl Chloride	-	C	-	G	G	G	G
Nickel Acetate, (Up to 10%, 100°F)	G	G	-	G	-	-	-	Potassium Acetate	G	G	-	-	E	-	-
Nickel Chloride	E	E	E	C	U	U	U	Potassium Bicarbonate	E	E	E	G	E	U	U
Nickel Nitrate	E	E	-	E	-	-	-	Potassium Bichromate	E	E	-	E	-	-	-
Nickel Plating Solution	-	-	E	C	-	-	-	Potassium Bisulfate	G	G	-	E	-	-	G
Nickel Sulfate	E	E	E	G	U	C	U	Potassium Bisulfite	E	E	-	G	U	C	C
Nicotinic Acid	U	U	-	E	C	E	E	Potassium Bromide	E	E	E	G	U	C	G
Niter Cake	E	E	-	-	-	-	-	Potassium Carbonate	E	E	E	G	E	U	U
Nitric Acid, (Up to 10%, 75°F)	U	G	E	E	U	U	U	Potassium Chlorate	E	E	E	G	G	G	G
Nitric Acid, (10-70%, 75°F)	U	U	U	E	U	U	U	Potassium Chloride	E	E	E	G	E	U	U
Nitric Acid, Red Fuming	U	U	U	E	U	U	U	Potassium Chromate	E	E	C	G	E	E	G
Nitrobenzene	U	U	C	E	C	C	E	Potassium Cupro Cyanide	E	E	E	G	E	U	U
Nitroethane	U	C	-	-	-	-	-	Potassium Cyanide	E	E	E	G	E	U	U
Nitromethane	U	C	-	-	-	-	-	Potassium Dichromate	E	E	C	G	E	E	G
Nitropropane	U	U	-	-	-	-	-	Potassium Ferricyanide	E	E	-	E	-	-	-
Nitrous Acid, (10%)	C	E	-	G	U	U	U	Potassium Ferrocyanide	E	E	E	G	-	E	G
Octyl Alcohol	G	E	E	E	E	E	E	Potassium Hydroxide	G	G	E	G	C	U	U
Oil, Motor	E	G	E	E	E	E	E	Potassium Iodide	E	E	-	-	-	-	-
Oil, Petroleum Refined	E	G	E	E	E	E	E	Potassium Nitrate	E	E	E	G	-	G	G
Oil, Petroleum Sour	U	U	-	E	C	C	E	Potassium Oxalate	-	-	-	E	-	-	C
Oil, Water Mixture	E	E	-	E	G	E	E	Potassium Perborate	E	E	-	-	-	-	-
Olaic Acid	U	U	-	G	-	-	G	Potassium Perchlorate	G	-	-	-	-	-	-
Oleic Acid	C	C	E	G	C	C	G	Potassium Permanganate, (Saturated to 10%)	-	-	E	E	E	C	G
Oleum	U	U	-	G	U	C	G	Potassium Permanganate,							
Oleum Spirits	G	C	U	G	-	U	G								

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Chemical Resistance Guide

WADE

AGENT	RESISTANCE							AGENT	RESISTANCE						
	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM		NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM
(Saturated 10-25%)	-	-	E	E	E	C	G	Sodium Borate	E	E	E	G	C	E	C
Potassium Persulfate	E	E	-	-	-	-	-	Sodium Bromide	E	E	-	G	U	G	G
Potassium Phosphate	E	E	-	G	C	C	U	Sodium Carbonate	E	E	C	E	E	G	U
Potassium Phosphate Di-Basic	E	E	-	E	E	G	G	Sodium Chlorate	E	E	E	G	C	G	C
Potassium Phosphate Tri-Basic	G	G	-	G	E	-	U	Sodium Chloride	E	E	E	C	G	C	C
Potassium Silicate	E	E	-	-	-	-	-	Sodium Chromate	E	E	-	E	G	C	U
Potassium Sulfate	E	E	E	G	E	C	U	Sodium Cyanide	E	E	E	E	E	U	U
Potassium Sulfide	E	G	-	E	G	G	G	Sodium Dichromate, (Up to 20%)	E	E	-	-	-	-	-
Potassium Sulfite	G	G	-	E	G	G	G	Sodium Ferricyanide	E	E	-	E	-	-	E
Potassium Thiosulfate	E	E	-	-	-	-	-	Sodium Ferrocyanide	E	E	-	-	-	-	-
Prestone	E	E	-	-	-	-	-	Sodium Fluoride	E	E	E	U	U	C	G
Propyl Acetate	U	U	-	-	-	-	-	Sodium Hydro Sulfide	E	E	-	-	-	C	E
Propyl Alcohol (Propanol)	E	E	E	E	C	E	E	Sodium Hydroxide, (20%, Cold)	E	E	-	E	E	E	U
Propyl Bromide	G	G	-	G	G	G	G	Sodium Hydroxide, (20%, Hot)	G	G	-	E	G	E	U
Propylene Dichloride	U	U	-	-	-	-	-	Sodium Hydroxide, (50%, Cold)	E	E	-	E	G	E	U
Pyridine	U	U	E	G	E	U	G	Sodium Hydroxide, (50%, Hot)	G	G	-	E	G	E	U
Pyrogallic Acid	E	E	-	G	G	G	G	Sodium Hydroxide, (70%, Cold)	G	C	-	E	E	E	U
Pyrolygeneous Acid	U	U	-	-	-	-	-	Sodium Hydroxide, (70%, Hot)	U	U	-	E	G	G	U
Pyrrole	U	U	-	-	-	-	-	Sodium Hypochlorite,							
Quench Oil	E	G	-	E	G	G	E	(Up to 20%)	G	U	C	C	U	U	U
Ref. Fuel B, (70 ISO Octane,								Sodium Metaphosphate	E	G	E	E	U	C	C
30 Toluene)	E	U	-	-	-	-	-	Sodium Metasilicate, Cold	G	E	-	E	C	G	G
Resins & Rosins	C	C	-	E	C	E	E	Sodium Metasilicate, Hot	-	-	-	E	C	G	G
Roof Pitch	G	C	-	E	E	E	E	Sodium Nitrate	G	G	E	G	E	C	G
Rosin Emulsion	U	C	-	E	C	G	E	Sodium Perborate	G	G	G	G	C	U	C
Rosin Oil	G	G	E	E	-	E	G	Sodium Peroxide	G	G	C	E	C	U	C
RP-1 Fuel	G	C	-	E	E	E	E	Sodium Phosphate, Dibasic	E	G	-	C	-	-	-
Rubber Latex Emulsions	-	-	-	E	G	E	E	Sodium Phosphate, Monobasic	E	E	-	E	C	-	-
Rubber Solvents	U	C	-	E	E	E	E	Sodium Phosphate, Tribasic	E	E	-	E	C	-	-
Sal Ammoniac	E	E	-	-	-	-	-	Sodium Polyphosphate	G	U	E	G	-	C	U
Salicylic Acid	G	C	-	E	-	-	-	Sodium Salicylate	-	-	-	E	-	-	-
Salad Oil	E	E	-	G	C	G	G	Sodium Silicate	E	E	E	E	E	E	U
Salt Brine	E	U	-	G	U	G	G	Sodium Silicate, Hot	-	-	-	G	C	C	C
Sauerkraut Brine	-	-	-	G	-	-	-	Sodium Sulphate	E	E	E	G	E	C	E
Sea Water	E	E	E	G	U	C	C	Sodium Sulphide	E	E	E	G	E	U	U
Secondary Butyl Alcohol	E	E	-	-	-	-	-	Sodium Sulfite Solutions,							
Selenic Acid	U	U	-	-	-	-	-	(Up to 20%)	E	E	E	G	E	C	C
Sewage	E	G	-	E	E	C	C	Sodium Tetraborate	E	E	E	E	E	-	-
Shellac	E	E	E	E	G	E	E	Sodium Thiosulfate	G	E	E	G	C	U	G
Silicic Acid	U	U	-	-	-	-	-	Sohovis 47	G	-	-	-	-	-	-
Silicone Fluids	G	G	E	G	G	G	G	Sohovis 78	G	-	-	-	-	-	-
Silver Bromide	-	-	-	E	-	-	U	Sovasol No. 1,2 and 3	E	G	-	-	-	-	-
Silver Cyanide	G	G	-	E	U	U	U	Sovasol No. 73 and 74	G	G	-	-	-	-	-
Silver Nitrate	G	E	E	G	U	U	U	Soybean Oil	E	C	E	E	E	E	G
Silver Plating Solution	E	E	E	E	-	-	-	Spindle Oil	E	C	-	-	-	-	-
Soap Solutions	E	G	E	E	E	C	C	Stannic Chloride	E	E	E	U	U	U	U
Soda Ash, Sodium Carbonate	E	E	C	E	E	G	U	Stannous Chloride, (Up to 15%)	E	E	E	E	U	U	U
Sodium Acetate	G	G	E	G	C	E	G	Steam, (15 PSIG, 250°F)	U	U	U	E	G	-	-
Sodium Benzoate	E	E	-	G	-	-	G	Stearic Acid	G	G	G	E	C	C	G
Sodium Bicarbonate	E	E	E	G	C	E	U	Stoddard Solvent	E	G	E	E	E	E	E
Sodium Bisulfate	E	E	E	G	U	C	U	Styrene	U	U	E	E	G	E	E
Sodium Bisulfite	E	E	E	G	U	C	U	Sucrose Solutions	E	E	E	E	G	E	E
Sodium Bisulphite, (Black Liquor)	E	E	-	E	U	G	U	Sugar Liquid	E	E	E	E	G	E	E

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	NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM		NITRILE	NEOPRENE	EPOXY	STAINLESS STEEL	DUCTILE/CAST IRON	BRONZE	ALUMINUM
AGENT								AGENT							
Sugar, Syrups & Jam	-	G	-	-	C	G	G	Tributoxy Ethyl Phosphate	U	U	-	-	-	-	-
Sulfate, Black Liquor	C	G	E	G	C	C	C	Tributyl Phosphate	U	U	-	-	-	-	-
Sulfate, Green Liquor	C	G	E	G	C	C	G	Trichloroethane	U	U	E	E	E	E	C
Sulfate, White Liquor	C	G	E	G	C	C	G	Trichloroethylene, (Up to 200°F)	C	U	C	G	C	E	E
Sulfite Liquors	G	G	E	G	U	U	U	Trichloroacetic Acid	C	U	-	U	U	G	U
Sulfite Acid Liquor	-	-	-	-	-	-	-	Tricresyl Phosphate	U	U	-	-	-	-	-
Sulfonic Acid	U	U	-	-	-	-	-	Tri Ethylene Glycol	-	-	-	-	-	-	-
Sulfur	U	E	-	E	E	-	-	Tri Ethylene Glycol Butyl Ether	-	-	-	-	-	-	-
Sulfur Chloride	U	U	C	U	U	U	U	Tri Ethylene Glycol Ethyl Ether	-	-	-	-	-	-	-
Sulfur Dioxide, Dry	U	U	E	E	E	E	G	Triethanol Amine	C	G	-	-	-	-	-
Sulfur Dioxide, Liquid	U	C	E	E	-	G	G	Triethanolamine	C	G	-	G	-	-	G
Sulfur Hexafluoride	E	G	-	E	-	G	E	Triethylamine	G	G	E	G	E	G	-
Sulfur, Molten	U	C	-	G	G	U	E	Trimethyl Propane	-	-	-	-	-	-	-
Sulfur Trioxide	U	U	-	G	G	G	-	Trisodium Phosphate	E	-	-	E	C	-	-
Sulfur Trioxide, Dry	U	U	E	E	G	G	E	Tung Oil	E	G	-	-	C	-	-
Sulfuric Acid, (Up to 25%, 150°F Max.)	U	C	E	U	U	U	U	Turbo Oil No. 15 Diester Lubricant	G	U	-	-	-	-	-
Sulfuric Acid, (25-50%, 200°F Max.)	U	U	G	U	U	U	U	Turpentine	E	U	G	E	G	C	E
Sulfuric Acid, (50-95%, 150°F Max.)	U	U	C	U	U	U	U	Urea	C	G	-	G	C	G	G
Sulfuric Acid, Fuming	U	U	U	U	U	U	U	Uric Acid	-	-	-	E	-	-	U
Sulfurous Acid	G	G	E	G	U	U	C	Varnish	C	G	E	E	C	E	E
Tall Oil	E	E	-	E	G	G	C	Vegetable Oils	E	G	E	E	E	C	E
Tannic Acid, (All Conc., 150°F Max.)	E	E	E	E	C	E	C	Versene	-	-	-	-	-	-	-
Tanning Liquors, (50G Alum. Sol.)	G	U	-	G	-	-	E	Vinegar	G	G	E	E	C	C	G
Tanning Liquors, (50G Dichromate Sol.)	E	U	E	E	-	E	E	Vinyl Acetate	U	U	-	-	-	-	-
Tar, Bituminous	G	C	-	E	G	-	-	Vinyl Chloride	U	U	-	E	-	-	-
Tartaric Acid	E	G	E	C	C	E	G	Vi-Pex	G	-	-	-	-	-	-
Terephthalic Acid	-	-	-	-	-	-	-	Water, (Up to 120°F)	E	E	E	E	E	E	E
Tertiary Butyl Alcohol	G	G	-	-	-	-	-	Water, (120 F to 200°F)	C	C	E	E	E	E	E
Tertiary Butyl Catechol	U	G	-	-	-	-	-	Water, (250°F)	U	U	E	E	E	E	E
Tertiary Butyl Mercaptan	U	U	-	-	-	-	-	Water, Acid, Mine (Oxidizing & Non-Oxidizing)	G	G	E	E	C	C	C
Tetrabutyl Titanate	G	G	-	-	-	-	-	Water, Bromine, (Up to 150°F)	U	U	-	-	-	-	-
Tetrachloroethylene	U	U	-	-	-	-	-	Water, Chlorine	C	C	-	-	-	-	-
Tetraethyl Lead	G	C	-	-	-	-	-	Water, Deionized, (Up to 150°F)	C	C	E	E	U	U	E
Tetrafluoroethylene	-	-	-	-	-	-	-	Water, Sewage, (Up to 120°F)	E	C	E	-	E	-	-
Tetrahydrofuran	U	U	E	E	U	U	U	Waxes	E	G	-	E	E	E	E
Tetralin	U	U	-	-	-	-	-	Wiskey & Wines	E	E	G	E	U	C	C
Thionyl Chloride	U	U	-	-	-	-	-	White Liquor	E	E	E	E	C	U	-
Thiophene	U	U	-	-	-	-	-	Wood Oil	E	G	E	E	C	U	E
Titanium Tetrachloride	C	U	-	E	-	-	-	Xylene	U	U	E	E	E	E	E
Toluene, (30%)	C	U	G	E	E	E	E	Xylol, (160°F Max.)	U	U	-	-	-	-	-
Tomato Juice	E	E	E	E	C	C	E	Zeolites	E	E	-	-	-	-	-
Transformer Oil	E	G	-	E	G	G	E	Zinc Acetate	G	G	-	E	-	-	-
Transmission Fluid, Type A	E	G	-	-	-	-	-	Zinc Bromide	G	G	-	G	U	G	U
Triacetin	G	G	-	-	-	-	-	Zinc Chloride, to 50%	E	E	E	U	U	U	U
								Zinc Hydrosulfite	E	E	-	E	G	C	U
								Zinc Sulfate	E	E	E	G	C	C	U

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