Chemical Resistance Properties of Common Elastomers

ASTM DESIGNATION (D1418)	(1) NR, IR	(2) SBR, BR	(3) IIR	(4) EPM, EPDM	(5) NBR	(6) CR	(7) AU, EU	(8) PMQ, MQ. VMQ	(9) FKM
COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Acetaldehyde	C	U	A	A	U	C	U	A	U
Acetamide	C	C	A	A	A	B	U	B	B
Acetic Acid, Glacial	B	C	B	A	C	C	U	B	C
Acetic Acid, 30%	B	B	B	A	B	A	C	A	B
Acetic Anhydride	B	B	B	B	C	A	U	C	U
Acetone	B	B	A	A	U	B	U	B	U
Acetophenone	C	U	A	A	U	U	U		U
Acetyl Chloride						U			A
Acetylene	B	B	A	A	B	B		B	A
Acrylonitrile	U	C	U	U	U	C		U	U
Adipic Acid					A				
Alkazene				U		U	B		B
Alum-NH3-Cr-K	A	A	A	A	A	A		A	U
Aluminum Acetate	A	B	A	A	B	B		U	
Aluminum Chloride	A	A	A	A	A	A		B	A
Aluminum Fluoride	B	A	A	A	A	A		B	A
Aluminum Nitrate	A	A	A	A	A	A			
Aluminum Phosphate	A	A	A	A	A	A		A	A
Aluminum Sulfate	A	B	A	A	A	A		A	A
Ammonia Anhydrous	A		A	A	A	A		C	U
Ammonia Gas (Cold)	A	A	A	A	A	A		A	
Ammonia Gas (Hot)			B	B		B		A	U
Ammonium Carbonate	A	A	A	A	U	A			
Ammonium Chloride	A	A	A	A	A	A			

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**

Ammonium Hydroxide	U	U	A	A	U	A	A	A	B
Ammonium Nitrate	C	A	A	A	A	B	U		
Ammonium Nitrile	A	A	A	A	A	A		B	
Ammonium Persulfate	A	U	A	A	U	A	U		
Ammonium Phosphate	B	A	A	A	A	A		A	
Ammonium Sulfate	A	B	A	A	A	A			
Amyl Acetate	B	C	A	A	U	U	U	U	U
Amyl Alcohol	B	B	A	A	B	A	U	U	B
Amyl Borate	U	U	U	U	A	A			A
Amyl Chloronapthalene	U	U	U	U		U	U	U	A
Amyl Napthalene	U	U	U	U	U	U	U	U	A
Aniline	U	U	B	B	U	C	U		C
Aniline Dyes	B	B	B	B	U	B	U		B
Aniline Hydrochloride	B	C	B	B	B	U	U	U	B
Animal Fats	U	U	B	B	A	B	A	B	A
Ansul Ether	U	U	C	C	C	U	B	U	U
Aqua Regia	U	U	U	C		U			B
Arochlor(s)	U	U	C	C	C	U		B	A
Arsenic Acid	B	A	A	A	A	A	C	A	A
Arsenic Trichloride					A	A			
Askarel	U	U	U	U	B	U	U	U	A
Asphalt	U	U	U	U	B	C	B	U	A
Barium Chloride	A	A	A	A	A	A	A	A	A
Barium Hydroxide	A	A	A	A	A	A	A	A	A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Barium Sulfate	A	A	A	A	A	A	A	A	A
Barium Sulfide	A	B	A	A	A	A	A	A	A
Beer	A	A	A	A	A	A		A	A
Beet Sugar Liquors	A	A	A	A	A	A		A	A
Benzene	U	U	U	U	U	U	U	U	A
Benzenesulfonic Acid						A			A
Benzaldehyde		U	A	A	U	U	U	U	U
Benzyl Alcohol			B	B	U	A			A
Benzyl Benzoate			B	B					A
Benzyl Chloride					U	U			A
Benzoic Acid								B	A
Blast Furnace Gas	U	U			U	U		A	A
Bleach Solutions	U	U	A	A		C		B	A
Borax	B	B	A	A	B	A	A	B	A
Bordeaux Mixture	B	B	A	A		A		B	A
Boric Acid	A	A	A	A	A	A	A	A	A
Brine			A	A	A	A			
Bromine - Anhydrous	U					U		C	A
Bromine Trifluoride		U	U	U	U	U	U	U	U
Bromine Water	U					B			A
Bromobenzene		U	U	U	U	U	U	U	A
Bunker Oil	U				A		B	B	A
Butadiene	U	U	C	C	U	B	U		B
Butane	U	U	U	U	A	A	A		A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Butter	U	U	B	A	A	B	A	A	A
Butyl Acetate			B	B		U		U	U
Butyl Acetate Ricinoleate			A	A		B			A
Butyl Acrylate		U	U	U					U
Butyl Alcohol	A	A	B	B	A	A	U	B	A
Butyl Amine	U	U	U	U	C	U	U	B	U
Butyl Benzoate			A	A		U			A
Butyl Carbitol			A	A	A	B			A
Butyl Cellosolve			A	A	C	B			U
Butyl Oleate	U	U	B	B		U			A
Butyl Stearate	U	U	B	B	B				A
Butylene	U	U	U	U	B	C			A
Butyraldehyde	C	C	B	B	C	C		C	U
Calcium Acetate	A		A	A	B	B			U
Calcium Bisulfite	U	U	U	U	A	A	A	A	A
Calcium Chloride	A	A	A	A	A	A	A	A	A
Calcium Hydroxide	A	A	A	A	A	A	A	A	A
Calcium Hypochlorite	U	U	A	A	C	C		B	A
Calcium Nitrate	A	A	A	A	A	A	A	B	A
Calcium Sulfide	B	B	A	A	B	A	A	B	A
Cane Sugar Liquors	A	A	A	A	A	A	U	A	A
Carbamate	U	U	B	B	C	B	U		A
Carbitol	B	B	B	B	B	B	U	B	B
Carbolic Acid	U	U	B	B	U	C		U	A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Carbon Bisulfide			U	U	C	U			A
Carbon Dioxide	B	B	B	B	A	B	A	A	A
Carbonic Acid	A	B	A	A	A	A	A	A	A
Carbon Monoxide	B	B	A	A	A	A	A	A	A
Carbon Tetrachloride	U	U	U	U	C	U	C	U	A
Castor Oil	A	A	B	B	A	A	A	A	A
Cellosolve	U	U	B	B					C
Cellosolve Acetate	U	U	B	B	U		U		U
Cellulube			A	A	U	U			A
Chlorine (Dry)	U	U				C			A
Chlorine (Wet)	U	U	C	C		U	U		A
Chlorine Dioxide			C	C	U	U			A
Chlorine Trifluoride	U	U	U	U	U	U	U	U	U
Chloroacetone	B		B	A	U	B			U
Chloroacetic Acid			B	B					
Chlorobenzene	U	U	U	U	U	U	C	U	A
Chlorobromomethane	U	U	B	B		U		U	B
Chlorobutadiene	U	U	U	U	U	U			A
Chlorododecane	U	U	U	U	U	U			A
Chloroform	U	U	U	U	U	U		U	A
O-Chloronapthalene	U	U	U	U	U	U		U	A
1-Chloro 1-Nitro Ethane	U	U	U	U	U	U	U	U	C
Chlorosulfonic Acid	U	U	U	U	U	U	U		C
Chlorotoluene	U	U	U	U	U	U	U		A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**

Chrome Plating Solutions	U	U	U	U	U	U	U	B	A
Chromic Acid	U	U	C	C	U	U	U	C	A
Citric Acid	A	A	A	A	A	A	A	A	A
Cobalt Chloride	A	A	A	A	A	A	U	A	
Coconut Oil	U	U	A	A	A	B	A	A	
Cod Liver Oil	U	U	A	A	A	B	A	B	A
Coke Oven Gas	U	U						B	A
Copper Acetate			A	A	B	B			
Copper Chloride	A	A	A	A	A	A	A	A	A
Copper Cyanide	A	A	A	A	A	A	A	A	A
Copper Sulfate	B	B	A	A	A	A	A	A	A
Corn Oil	U	U	B	C	A	B	A	A	A
Cottonseed Oil	U	U	C	A	A	B	A	A	A
Creosote	U	U	U	U	B	C	B	U	A
Cresol	U	U	U	U	C	C	U		A
Cresylic Acid	U	U	U	U	C	C	U		A
Cumene						U			A
Cyclohexane	U	U	U	U	A	U	B	U	A
Cyclohexanol	B	U	U	U	B	A			A
Cyclohexanone			B	B	U	U			U
p-Cymene						U			A
Decalin	U	U				U			A
Decane	U	U			B	U	B	B	A
Denatured Alcohol	A	A	A	A	A	A	C	A	A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Detergent Solutions	B	B	A	A	A	A	U	A	A
Developing Fluids	A	B	B	B	A	A		A	A
Diacetone			A	A			B		U
Diacetone Alcohol	U	U	A	A	U	A	B	A	
Dibenzyl Ether	U	U	B	B	U	B	B		
Dibenzyl Sebecate			B	B		U	B	C	B
Dibutyl Amine	U	U	U	U	U	U		C	U
Dibutyl Ether	U	U	C	C	C	C	B	U	C
Dibutyl Phthalate	C	U	B	A	U	U	C	B	B
Dibutyl Sebecate	U	U	B	B	U	U	U	B	B
O-Dichlorobenzene	U	U	U	U	U	U	U	U	A
Dichloro-Isopropyl Ether	U	U	C	C	U	U	B	U	C
Dicyclohexylamine	U	U			C				
Diesel Oil	U	U	U	U	A	B	B	U	A
Diethlamine	B	B	B	B	C	C	C	B	U
Diethyl Benzene	U	U	U	U	U	U	U	U	A
Diethyl Ether	U	U	U	U	U	C	A	U	U
Diethylene Glycol	A	A	A	A	A	A	U	B	A
Diethyl Sebacate			B	B	U	U		B	B
Diisobutylene					B	C		U	A
Diisopropyl Benzene	U	U	U	U	U	U			A
Diisopropyl Ketone			A	A	U	U			U
Dimethyl Aniline	U	U	U	B		U			U
Dimethyl Formamide					B	C		B	U

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**

Dimethyl Phthalate	U	U	B	B	U	U			B
Dinitrotoluene	U	U	U	U	U	U			C
Dioctyl Phthalate			B	B		U		C	B
Dioctyl Sebecate	U	U	B	B	U	U	B	C	B
Dioxane			B	B					
Dioxolane	U	U	C	B	U				
Dipentene					B				A
Diphenyl									A
Diphenyl Oxides				A				C	A
Dowtherm Oil	U	U	U	U		U	B	B	A
Dry Cleaning Fluids	U	U	U	U	C	U			A
Epichlorohydrin	U	U	B	B					U
Ethane	U	U	U	U	A	B	B	U	A
Ethanolamine	B	B	B	B	B	B	C	B	U
Ethyl Acetate	U	U	B	B	U	C	U	B	U
Ethyl Acetoacetate	C	C	B	B	U	C		B	U
Ethyl Acrylate			B	B				B	U
Ethyl Alcohol	A	A	A	A	A	A	B	A	A
Ethyl Benzene	U	U	U	U	U	U	U		A
Ethyl Benzoate			B	B					A
Ethyl Cellosolve			B	B					U
Ethyl Cellulose	B	B	B	B		B	B	C	U
Ethyl Chloride	B	B	A	A	A	B	B	U	A
Ethyl Chlorocarbonate	U	U				C			A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Ethyl Chloroformate	U					C			A
Ethyl Ether			C	C	C	U	B		U
Ethyl Formate	U	U	B	B	U	B			A
Ethyl Mercaptan	U	U	U	U	U				A
Ethyl Oxolate	A	A	A	A	U	C	A		A
Ethyl Pentochlorobenzene	U	U	U	U	C	U	C		A
Ethyl Silicate	B	B	A	A	A	A			A
Ethylene					A				A
Ethylene Chloride			C	C					A
Ethylene Chlorohydrin	B	B			U	B		C	A
Ethylene Diamine	B	B	A	A	A	A		A	U
Ethylene Dichloride	U	U	C	C	U	U	U	C	A
Ethylene Glycol	A	A	A	A	A	A	B	A	A
Ethylene Oxide			C	C	U	U		C	U
Ethylene Trichloride			C	C	U	U		C	A
Fatty Acids	C	C	U	U	B	B		C	A
Ferric Chloride	A	A	A	A	A	A	A	A	A
Ferric Nitrate	A	A	A	A	A	A		C	A
Ferric Sulfate	A	A	A	A	A	A		B	A
Fish Oil					A			A	A
Fluoroboric Acid	A	A	A	A	A	A			
Fluorine (Liquid)			C	C				U	B
Fluorobenzene	U	U	U	U	U	U		U	A
Fluorocarbon Oils			A	A					

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Fluorolube		U	A	A	A	A			B
Fluorinated Cyclic Ethers			A	A					
Fluosilicic Acid	A				A	A			
Formaldehyde			A	A	B	A	U		A
Formic Acid	A	A	A	A	B	A	U	B	C
Freon 11	U	U	U	U	A	B	U	U	A
Freon 12	B	A	B	B	A	A	A	U	B
Freon 13	A	A	A	A	A	A			A
Freon 21	U		U	U	U	B		U	U
Freon 22	A	A	A	A	U	A	U	U	U
Freon 31	B	B	A	A	U	A			U
Freon 32	A	A	A	A	A	A			C
Freon 112	U		U	U	B	B			A
Freon 113	C	B	U	U	A	A	B	U	B
Freon 114	A	A	A	A	A	A	A	U	B
Freon 115	A	A	A	A	A	A			B
Freon 142b	A	A	A	A	A	A			U
Freon 152a	A	A	A	A	A	A			U
Freon 218	A	A	A	A	A	A			A
Freon C316	A	A	A	A	A	A			
Freon C318	A	A	A	A	A	A			A
Freon 13B1	A	A	A	A	A	A	A	U	A
Freon 114B2	U	C	U	U	B	A			B
Freon 502	A	A			B	A			B

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Freon TF	C	B	U	U	A	A	A	U	A
Freon T-WD602	C	B	A	B	B	B	A	U	A
Freon TMC	B	C	B	B	B	B	B	C	A
Freon T-P35	A	A	A	A	A	A	A	A	A
Freon TA	A	A	A	A	A	A	A	A	C
Freon TC	U	B	A	B	A	A	A	U	A
Freon MF	U	B	U		A	C	C		
Freon BF	U	U	U		B	B			
Fuel Oil	U	U	U	U	A	B	B	U	A
Fumaric Acid	A	A	U		A	B		B	A
Furan, Furfuran	U	U	C	C	U	U			
Fufural	C	C	B	B	U	B			U
Gallic Acid	A	B	B	B	B	B	U		A
Gasoline	U	U	U	U	A	B	A	U	A
Gelatin	A	A	A	A	A	A	A	A	A
Glauber's Salt		U	B	B					A
Glucose	A	A	A	A	A	A	A	A	A
Glue	A	A	A	A	A	A	A	A	A
Glycerin	A	A	A	A	A	A	A	A	A
Glycols	A	A	A	A	A	A	B	A	A
Green Sulfate Liquor	B	B	A	A	B	B	A	A	A
Halowax Oil	U	U	U	U	U	U		U	A
n-Hexaldehyde	U	U	B	A	U	A	B	B	
Hexane	U	U	U	U	A	B	B	U	A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
n-Hexene-1	U	U	U	U	B	B	A	U	A
Hexyl Alcohol	A	A	C	C	A	B	U	B	A
Hydrazine			A	A	B	B	U	C	
Hydraulic Oil (Petroleum)	U	U	U	U	A	B	A	C	A
Hydrobromic Acid	A	C	A	A	U	A	U	U	A
Hydrochloric Acid (Hot) 37%	U	U	C	C	U	U	U	U	A
Hydrochloric Acid (Cold) 37%	B	B	A	A	B	B	U	B	A
Hydrocyanic Acid	B	B	A	A	B	B			A
Hydrofluoric Acid (Conc.) Hot	U	U	U	U	U	U	U	U	B
Hydrofluoric Acid (Conc.) Cold	U	U	B	B	U	B	U	U	A
Hydrofluoric Acid - Anhydrous	U	U	B	B				U	
Hydrofluosilicic Acid	A	B	A	A	B	B		U	A
Hydrogen Gas	B	B	A	A	A	A	A	C	A
Hydrogen Peroxide (90%)	U	U	C	C	U			A	B
Hydrogen Sulfide (Wet) (Cold)	U	U	A	A	U	A		C	U
Hydrogen Sulfide (Wet) (Hot)	U	U	A	A	U	B		C	U
Hydroquinone	B	B			C				U
Hypochlorous Acid	B	B	B	B	U				A
Iodine Pentafluoride	U	U	U	U	U	U	U	U	U
Iodoform			A	A					
Isobutyl Alcohol	A	B	A	A	B	A	U	A	A
Isooctane	U	U	U	U	A	B	B	U	A
Isophorone			A	A	U		B		U
Isopropyl Acid			A	A	U	U	A		U

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Chemical Resistance Properties of Common Elastomers

ASTM DESIGNATION (D1418)	(1) NR, IR	(2) SBR, BR	(3) IIR	(4) EPM, EPDM	(5) NBR	(6) CR	(7) AU, EU	(8) PMQ, MQ. VMQ	(9) FKM
COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Isopropyl Alcohol	A	B	A	A	B	A		A	A
Isopropyl Chloride	U	U	U	U	U				A
Isopropyl Ether	U	U	U	U	B	B	B		U
Kerosene	U	U	U	U	A	C	B	U	A
Lacquers	U	U	U	U	U	U	U	U	U
Lacquer Solvents	U	U	U	U	U	U	U	U	U
Lactic Acid	A	A	A	A	A	A		A	A
Lard	U	U	U	U	A	C	A	B	A
Lavender Oil	U	U	U	U	B	C			A
Lead Acetate	A		A	A	B	B		U	
Lead Nitrate	A	A	A	A	A	A		B	
Lead Sulfamate	B	B	A	A	B	A		B	A
Lime Bleach	A	A	A	A	A	B		B	A
Lime Sulfur	U	U	A	A	U	A		A	A
Lindol			A	A		C		C	B
Linoleic Acid			U	U	B	U		B	B
Linseed Oil	U	U	B	B	A	B	B		A
Liquefied Petroleum Gas	U	U	U	U	A	B	A	C	A
Lubricating Oils (Petroleum)	U	U	U	U	A	B	B	U	A
Lye	B	B	A	A	B	B	B	B	B
Magnesium Chloride	A	A	A	A	A	A	A	A	A
Magnesium Hydroxide	B	B	A	A	B	A	A		A
Magnesium Sulfate	B	B	A	A	A	A		A	A
Maleic Acid	B	B	C	C					A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Maleic Anhydride	B	B	C	C					A
Malic Acid		B	U	U	A	B		B	A
Mercuric Chloride	A	A	A	A	A	A			A
Mercury	A	A	A	A	A	A	A		A
Mesityl Oxide	U	U	B	B	U	U		U	U
Methane	U	U	U	U	A	B	B	U	A
Methyl Acetate	U	U	B	B	U	B			U
Methyl Acrylate	U	U	B	B	U	B			U
Methylacrylic Acid	U	U	B	B		B			B
Methyl Alcohol	A	A	A	A	A	A	U	A	C
Methyl Bromide					B	U			A
Methyl Butyl Ketone	U	U	A	A	U	U		B	U
Methyl Cellosolve	U	U	B	B		B			U
Methyl Chloride	U	U	C	C	U	U		U	A
Methyl Cyclopentane	U	U	U	U		C			A
Methylene Chloride	U	U	U	U	U	U	U		B
Methyl Ethyl Ketone	U	U	A	A	U	U	U		U
Methyl Formate	U	U	B	B	U	B		B	
Methyl Isobutyl Ketone	U	U	C	C	U	U		C	U
Methyl Methacrylate	U	U	U	U	U	U		C	U
Methyl Oleate	U	U	B	B	U	U			A
Methyl Salicylate			B	B		U			
Milk	A	A	A	A	A	A	U	A	A
Mineral Oil	U	U	U	U	A	B	A	B	A

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Disclaimer: The information contained in this document is to be used as a guide only. RubberMill cannot guarantee the accuracy, or be held responsible for the information's end use. It is recommended that each elastomer be tested for its specific application. RubberMill can assist you regarding information on additional elastomers not listed on this chart. Viton is a DuPont Dow Registered Trademark.

Chemical Resistance Properties of Common Elastomers

ASTM DESIGNATION (D1418)	(1) NR, IR	(2) SBR, BR	(3) IIR	(4) EPM, EPDM	(5) NBR	(6) CR	(7) AU, EU	(8) PMQ, MQ. VMQ	(9) FKM
COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Monochlorobenzene	U	U	U	U	U	U		U	A
Monomethyl Aniline	U	U			U	U			B
Monoethanolamine	B	B	B	B	U	U		B	U
Monomethylether	B	B	A	A	A	A			
Monovinyl Acetylene	B	B	A	A	A	B		B	A
Mustard Gas	A		A	A		A		A	
Naptha	U	U	U	U	C	C	C	U	A
Napthalene	U	U	U	U	U	U	B	U	A
Napthenic Acid	U	U	U	U	B				A
Natural Gas	C	C	U	U	A	A	B	A	A
Neatsfoot Oil	U	U	B	B	A			B	A
Neville Acid	U	U	B	B	C	C			A
Nickel Acetate	A		A	A	B	B			U
Nickel Chloride	A	A	A	A	A	A		A	A
Nickel Sulfate	B	B	A	A	A	A	A	A	A
Niter Cake	A	A	A	A	A	A		A	A
Nitric Acid - Conc.	U	U	C	C	U	C	U	U	A
Nitric Acid - Dilute	U	U	B	B	U	A	C	B	A
Nitric Acid - Red Fuming	U	U	U	U	U	U	U	U	C
Nitrobenzene	U	U	U	U	U	U	U	U	B
Nitrobenzine			C	C		U			A
Nitroethane	B	B	B	B	U	C		U	U
Nitromethane	B	B	B	B	U	C		U	U
Nitrogen	A	A	A	A	A	A	A	A	A

ASTM DESIGNATION (D1418)	(1) NR, IR	(2) SBR, BR	(3) IIR	(4) EPM, EPDM	(5) NBR	(6) CR	(7) AU, EU	(8) PMQ, MQ. VMQ	(9) FKM
COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**

Nitrogen Tetroxide	U	U	C	C	U	U		C	U
Octadecane	U	U	U	U	A	B	A	U	A
n-Octane	U	U	U	U				U	A
Octachlorotoluene	U	U	U	U	U	U	U	U	A
Octyl Alcohol	B	B	A	A	B	A	U	B	A
Oleic Acid	C	C	B	B	C	C	B		B
Oleum Spirits					B	C	C		A
Olive Oil	U	U	B	B	A	B	A	U	A
o-Dichlorobenzene					U	U			A
Oxalic Acid	B	B	A	A	B	B		B	A
Oxygen - Cold	B	B	A	A	B	B	A	A	A
Oxygen - 200-400˚F	U	U	U	U	U	U	U	B	B
Ozone	U	U	B	A	U	B	A	A	A
Paint Thinner, Duco	U	U	U	U					B
Palmitic Acid	B	B	B	B	A	B	A		A
Peanut Oil	U	U	C	C	A	B	B	A	A
Perchloric Acid			B	B		A		U	A
Perchloroethylene	U	U	U	U	C	U	U	B	A
Petroleum - Below 250	U	U	U	U	A	B	B	B	A
Petroleum - Above 250	U	U	U	U	C	U	U	U	B
Phenol			B	B		C	U	C	A
Phenylbenzene	U	U	U	U	U	U			A
Phenyl Ethyl Ether	U	U	U	U	U	U			
Phenyl Hydrazine	A	B	C	C	U	C			A

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Chemical Resistance Properties of Common Elastomers

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Phorone			B	B					
Phosphoric Acid - 20%	B	C	A	A	B	B	A		A
Phosphoric Acid - 45%	U	U	B	B	U	B	A	U	A
Phosphorous Trichloride	U	U	A	A	U	U			A
Pickling Solution			C	C					B
Picric Acid	B	B	B	B	B	A	B	U	A
Pinene	U	U	U	U	B	B	B	U	A
Pine Oil	U	U	U	U	B	U			A
Piperidine	U	U	U	U	U	U			U
Plating Solution - Chrome	U	U	A	A				U	A
Plating Solution - Others			A	A	A			U	A
Polyvinyl Acetate Emulsion			A	A		B			
Potassium Acetate	A	A	A	A	B	B			U
Potassium Chloride	A	A	A	A	A	A	A	A	A
Potassium Cupro Cyanide	A	A	A	A	A	A	A	A	A
Potassium Cyanide	A	A	A	A	A	A	A	A	A
Potassium Dichromate	B	B	A	A	A	A	A	A	A
Potassium Hydroxide	B	B	A	A	B	A	B	C	B
Potassium Nitrate	A	A	A	A	A	A	A	A	A
Potassium Sulfate	B	B	A	A	A	A	A	A	A
Producer Gas	U	U	U	U	A	B	A	B	A
Propane	U	U	U	U	A	A	B	U	A
Propyl Acetate	U	U	B	B	U	U			U
n-Propyl Acetate	U	U	A	A	U				U

ASTM DESIGNATION (D1418)	(1) NR, IR	(2) SBR, BR	(3) IIR	(4) EPM, EPDM	(5) NBR	(6) CR	(7) AU, EU	(8) PMQ, MQ. VMQ	(9) FKM
COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**

Propyl Alcohol	A	A	A	A	A	A	U	A	A
Propyl Nitrate			B	B				C	U
Propylene	U	U	U	U	U	U			A
Propylene Oxide			B	B		U		U	
Pyranol	U	U	U	U	A	U	B	B	A
Pydrauls	U	U	B	B	U	U	U	B	A
Pyridine	U	U	B	B	U	U			U
Pyroligneous Acid			B	B		B			
Pyrole	C	C	C	C	U	U		B	
Radiation	B	B	U	B	B	B	A	C	U
Rapeseed Oil	U	U	A	A	B	B	B	U	A
Red Oil	U	U	U	U	A	B	A	U	A
Sal Ammoniac	A	A	A	A	A	A	A	B	A
Salicylic Acid	A	A	A	A	A				A
Salt Water	A	A	A	A	A	A			A
Sewage	B	B	B	B	A	A	U	B	A
Silicate Ethers	U	U	U	U	B	A	A	U	A
Silicone Greases	A	A	A	A	A	A	A	C	A
Silicone Oils	A	A	A	A	A	A	A	C	A
Silver Nitrate	A	A	A	A	B	A	A	A	A
Skydrol 500	U	U	B	B	U	U	U	C	U
Skydrol 7000	U	U	A	A	U	U	U	B	B
Soap Solutions	B	B	A	A	A	A	A	A	A
Soda Ash	A	A	A	A	A	A		A	A

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ASTM DESIGNATION (D1418)	(1) NR, IR	(2) SBR, BR	(3) IIR	(4) EPM, EPDM	(5) NBR	(6) CR	(7) AU, EU	(8) PMQ, MQ. VMQ	(9) FKM
COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Sodium Acetate	A	C	A	A	B	B	U		U
Sodium Bicarbonate	A	A	A	A	A	A		A	A
Sodium Bisulfite	A	B	A	A	A	A		A	A
Sodium Borate	A	A	A	A	A	A		A	A
Sodium Chloride	A	A	A	A	A	A	A	A	A
Sodium Cyanide	A	A	A	A	A	A		A	A
Sodium Hydroxide	A	A	A	A	B	A	B	B	B
Sodium Hypochlorite	C	C	B	B	B	B	U	B	A
Sodium Metaphosphate	A	A	A	A	A	B			A
Sodium Nitrate	B	B	A	A	B	A		U	
Sodium Perborate	B	B	A	A	B	B		B	A
Sodium Peroxide	B	B	A	A	B	B	U	U	A
Sodium Phosphate	A	A	A	A	A	A	A	U	A
Sodium Silicate	A	A	A	A	A	A			A
Sodium Sulfate	B	B	A	A	A	A	A	A	A
Sodium Thiosulfate	B	B	A	A	B	A	A	A	A
Soybean Oil	U	U	C	C	A	B	B	A	A
Stannic(ous) Chloride	A	A	B	B	A	A		B	A
Steam Under 300˚F	U	U	A	A	U	C	U	U	U
Steam Over 300˚F	U	U	C	B	U	U	U	U	U
Stearic Acid	B	B	B	B	B	B	A	A	
Stoddard Solvent	U	U	U	U	A	C	A	U	A
Styrene	U	U	U	U	U	U		U	B
Sucrose Solution	A	A	A	A	A	A			

ASTM DESIGNATION (D1418)	(1) NR, IR	(2) SBR, BR	(3) IIR	(4) EPM, EPDM	(5) NBR	(6) CR	(7) AU, EU	(8) PMQ, MQ. VMQ	(9) FKM
COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Sulfite Liquors	B	B	B	B	B	B		U	A
Sulfur	U	U	A	A	U	A		A	A
Sulfur Chloride	U	U	U	U	C	C			A
Sulfur Dioxide	C	C	B	B	U	C		A	A
Sulfur Hexafluoride		A	A	A	A	A		A	A
Sulfur Trioxide	B	U	B	B	U	U		B	A
Sulfuric Acid (Dilute)	C	C	B	B	U	B	B	U	A
Sulfuric Acid (Concentrated)	U	U	B	B	U	U	U	U	A
Sulfuric Acid (20% Oleum)	U	U	U	U	U	U	U	U	A
Sulfurous Acid	B	B	B	B	B	B	U	U	A
Tannic Acid	A	A	A	A	A	A	A	B	A
Tar, Bituminous	U	U	U	U	B	C		B	A
Tartaric Acid	A	A	B	B	A	B	A	A	A
Terpineol	U	U	C	C	B	U	B		A
Tertiary Butyl Alcohol	B	B	B	B	B	B	U	B	A
Tertiary Butyl Cathecol	U	U	B	B	U	B	U		A
Tertiary Butyl Mercaptan	U	U	U	U	U	U	U		A
Tetrabromomethane	U	U	U	U	U				A
Tetrabutyl Titanate	B	B	B	A	B	A			A
Tetrachloroehylene	U	U	U	U	U		B		A
Tetraethyl Lead	U	U	U	U	B	C			A
Tetrahydrofuran	U	U	B	B					U
Tetralin	U	U	U	U	U	U			A
Thionyl Chloride	U	U	U	U		U			A

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COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**
Titanium Tetrachloride	U	U	U	U	C	U			A
Toluene	U	U	U	U	U	U	C	U	A
Toluene Diisocyanate	C	C	A	A		U			
Transformer Oil	U	U	U	U	A	B		B	A
Transmission Fluid Type A	U	U	U	U	A	B	A	B	A
Triacetin	B	C	A	A	B	B	U		U
Tributoxy Ethyl Phosphate	B	B	A	A	U	U	U		A
Tributyl Phosphate	B	U	A	A	U	U	U		U
Tributyl Mercaptan	U	U	U	U	U	U			A
Trichloroethane	U	U	U	U	U	U	U	U	A
Trichloroacetic Acid	C	B	B	B	B	B			C
Trichloroethylene	U	U	U	U	C	U	U	B	A
Tricresyl Phosphate	U	U	A	A	U	C	C	C	B
Triethanol Amine	B	B	B	B	C	A	U		U
Triethyl Aluminum									B
Triethyl Borane									A
Trinitroluene	U	U	U	U	U	B			B
Trioctyl Phosphate	U	U	A	A	U	U		C	B
Triaryl Phosphate	U	U	A	A	U	C	B	C	A
Tung Oil	U	U	C	U	A	B	B		A
Turbine Oil	U	U	U	U	B	B			A
Turpentine	U	U	U	U	A	U	U	U	A
Unsymmetrical Dimethyl Hydarzine (UDMH)			A	A	B	B		U	U

ASTM DESIGNATION (D1418)	(1) NR, IR	(2) SBR, BR	(3) IIR	(4) EPM, EPDM	(5) NBR	(6) CR	(7) AU, EU	(8) PMQ, MQ. VMQ	(9) FKM
COMMON NAME	**Natural Rubber**	**SBR**	**Butyl**	**EPDM**	**Nitrile**	**Neoprene**	**Urethane**	**Silicone**	**Viton®**

Varnish	U	U	U	U	B	C			A
Vegetable Oils	U	U	A	A	A	B		A	A
Versilube	A	A	A	A	A	A		C	A
Vinegar	B	B	A	A	B	A		A	A
Vinyl Chloride				B		U			A
Wagner 21B Fluid		A	B	A	C	A		C	U
Water	A	A	A	A	A	A	A	A	A
Whiskey, Wines	A	A	A	A	A	A	A	A	A
White Pine Oil	U	U	U	U	B	U			A
White Oil	U	U	U	U	A	B		U	A
Wood Oil	U	U	U	U	A	B		U	A
Xylene	U	U	U	U	U	U	C	U	A
Xylidenes	U	U	U	U	C	U		U	U
Zeolites	A	A	A	A	A	A			A
Zinc Acetate	A	C	A	A	B	B		U	U
Zinc Chloride	A	A	A	A	A	A			A
Zinc Sulfate	B	B	A	A	A	A		A	A

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