Compatibility Tables for Gases, Fluids, Solids

COMPOUND COMPATIBILITY RATING
1 - Satisfactory
2 - Fair (usually OK for static seal)
3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
— A —																			
A-A-52624	E1267-80	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A-A-59290	E1267-80	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Abietic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Acetaldehyde	E0540-80	3	3	2	4	1	1	3	3	3	4	4	2	2	2	2	3	4	2
Acetamide	C0873-70	1	1	1	3	1	1	2	1	4	4	4	2	4	4	4	2	1	2
Acetanilide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Acetic Acid, 30%	E0540-80	X	X	1	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Acetic Acid, 5%	E0540-80	2	2	1	1	1	1	1	1	2	4	4	1	2	2	2	1	2	1
Acetic Acid, Glacial	E0540-80	2	2	1	2	1	1	3	4	2	4	4	2	2	2	2	3	2	1
Acetic Acid, Hot, High Pressure	FF200-75	4	4	3	4	2	1	3	4	4	4	4	4	4	4	4	3	4	3
Acetic Anhydride	C0873-70	3	4	2	4	1	1	2	2	2	4	4	2	2	2	2	2	4	2
Acetoacetic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Acetone	E0540-80	4	4	1	4	2	1	2	4	4	4	4	1	4	4	4	3	4	4
Acetone Cyanohydrin	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Acetonitrile (Methyl Cyanide)	E0540-80	3	3	1	3	1	1	1	X	X	X	X	X	X	X	X	X	X	X
Acetophenetidine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Acetophenone	E0540-80	4	4	1	4	2	1	2	4	4	4	4	2	4	4	4	4	4	4
Acetotoluidide	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Acetyl Acetone	E0540-80	4	4	1	4	2	1	2	4	4	4	4	1	4	4	4	4	4	4
Acetyl Bromide	V1164-75	4	4	1	1	1	1	2	4	4	4	4	1	4	4	4	4	4	4
Acetyl Chloride	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	1	4
Acetylene	E0540-80	1	1	1	1	1	1	1	2	2	4	4	1	2	2	2	2	X	2
Acetylene Tetrabromide	V1164-75	4	4	1	1	1	1	1	2	4	X	4	1	X	X	X	X	X	X
Acetylene Tetrachloride	V1164-75	4	4	1	1	1	1	1	2	4	X	4	1	X	X	X	X	X	X
Acetylsalicylic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Acids, Non-organic	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Acids, Organic	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aconitic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Acridine	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Acrolein	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Acrylic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Acrylonitrile	FF500-75	4	4	4	3	1	1	3	4	3	4	4	4	X	3	3	3	4	4
Adipic Acid	E0540-80	1	1	2	X	1	1	2	X	X	X	X	X	X	X	X	X	X	X
Aero Lubriplate	N0674-70	1	1	4	1	1	1	2	1	2	1	1	4	4	4	4	1	1	2
Aero Shell 17 Grease	N0674-70	1	1	4	1	1	1	2	2	4	1	1	4	4	4	4	1	1	2

Approximate Service Temperature Ranges for Commonly Used Basic Polymer Types*

Nitrile (General Service)	-34°C to 121°C (-30°F to 250°F)*	AFLAS	-9°C to 232°C (15°F to 450°F)*
Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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Aero Shell 560	VM835-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Aero Shell 750	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	4
Aero Shell 7A Grease (MIL-G-23827)	N0674-70	2	2	4	1	1	1	2	2	4	1	1	4	4	4	4	1	1	2
Aero Shell IAC	N0674-70	1	1	4	1	1	1	2	2	4	1	1	4	4	4	4	1	1	2
Aerosafe 2300	E0540-80	4	4	1	4	1	1	2	4	4	4	4	2	4	4	4	4	3	3
Aerosafe 2300W	E0540-80	4	4	1	4	1	1	2	4	4	4	4	2	4	4	4	4	3	3
Aerozene 50 (50% Hydrazine 50% UDMH)	E0540-80	3	3	1	4	3	2	2	4	4	X	4	1	4	4	4	4	4	4
Air, Below 200° F	E0540-80	2	2	1	1	1	1	1	1	2	1	2	1	2	2	2	1	1	1
Air, 200 - 300° F	S0604-70	3	3	2	1	1	1	1	2	4	2	3	2	4	4	4	2	1	1
Air, 300 - 400° F	S0604-70	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	1
Air, 400 - 500° F	S0455-70	4	4	4	3	2	2	3	4	4	4	4	4	4	4	4	4	4	2
Aliphatic Dicarboxylic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Alkanes (Paraffin Hydrocarbons)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Alkanesulfonic Acid	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Alkazene	V1164-75	4	4	4	2	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Alkenes (Olefin Hydrocarbons)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Alkyl Acetone	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Alkyl Alcohol	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Alkyl Amine	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Alkyl Aryl Sulfonates	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Alkyl Aryl Sulfonics	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Alkyl Benzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Alkyl Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Alkyl Lithium	FF500-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Alkyl Sulfide*	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Alkylnaphthalene Sulfonic Acid	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Allyl Chloride	V1164-75	2	2	4	1	1	1	X	1	X	X	X	X	X	X	X	X	X	X
Allylidene Diacetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Alpha Picoline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Aluminum Acetate	E0540-80	2	2	1	4	1	1	2	2	2	4	4	1	4	1	1	4	4	4
Aluminum Bromide	N0674-70	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1
Aluminum Chlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Aluminum Chloride	N0674-70	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	2
Aluminum Ethylate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aluminum Fluoride	N0674-70	1	1	1	1	1	1	1	1	1	X	3	1	1	1	2	1	1	2
Aluminum Fluorosilicate*	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aluminum Formate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Aluminum Hydroxide	E0540-80	2	X	1	2	1	1	1	X	X	X	X	X	X	X	X	X	X	2
Aluminum Linoleate	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Aluminum Nitrate	N0674-70	1	1	1	1	1	1	1	1	1	X	3	1	1	1	1	1	X	2

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Aluminum Oxalate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Aluminum Phosphate	E0540-80	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	2
Aluminum Potassium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Aluminum Salts	N0674-70	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1
Aluminum Sodium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Aluminum Sulfate	N0674-70	1	1	1	1	1	1	1	1	2	4	4	1	1	1	1	1	1	1
Alums-NH3 -Cr -K	N0674-70	1	1	1	4	1	1	2	1	1	4	X	1	1	1	1	1	4	1
Ambrex 33 (Mobil)	N0674-70	1	1	4	1	1	1	2	2	4	1	2	4	4	4	4	3	3	4
Ambrex 830 (Mobil)	N0674-70	1	1	3	1	1	1	2	2	4	1	1	3	4	4	4	2	1	2
Amines-Mixed	C0873-70	4	4	2	4	3	2	3	2	2	4	4	2	2	2	2	4	4	2
Aminoanthraquinone	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aminoazobenzene	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aminobenzene Sulfonic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aminobenzoic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aminopyridine	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aminosalicylic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Ammonia (Anhydrous)	C0873-70	2	2	1	4	3	2	2	1	4	4	4	1	4	4	4	4	4	2
Ammonia and Lithium Metal in Solution	E0540-80	2	2	2	4	4	4	3	X	4	4	4	2	4	4	4	4	4	4
Ammonia, Gas, Cold	C0873-70	1	1	1	4	2	1	2	1	1	4	X	1	1	1	1	1	4	1
Ammonia, Gas, Hot	C0873-70	4	4	2	4	3	2	2	2	4	4	X	2	4	4	4	2	4	X
Ammonia, Liquid (Anhydrous)	C0873-70	2	2	1	4	3	2	2	1	4	4	4	1	4	4	4	2	4	2
Ammonium Acetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Arsenate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Benzoate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Bicarbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Bisulfite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Bromide	N0674-70	1	1	1	1	1	1	1	1	1	X	1	1	X	X	1	1	X	X
Ammonium Carbamate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Carbonate	C0873-70	4	4	1	1	1	1	1	1	1	4	4	1	X	X	1	1	X	X
Ammonium Chloride, 2N	N0674-70	1	1	1	1	1	1	1	1	1	X	1	1	X	X	1	1	X	X
Ammonium Citrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Dichromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Diphosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Fluoride	N0674-70	1	1	1	1	1	1	1	1	1	X	1	1	X	X	1	1	X	X
Ammonium Fluorosilicate*	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Ammonium Formate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Hydroxide, 3 Molar	E0540-80	1	1	1	3	2	2	2	1	2	4	4	1	2	2	2	1	1	1
Ammonium Hydroxide, Concentrated	E0540-80	4	4	1	4	3	2	2	1	3	4	4	1	3	3	3	1	1	1
Ammonium Iodide	N0674-70	1	1	1	1	1	1	1	1	1	X	1	1	X	X	1	1	X	X
Ammonium Lactate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Ammonium Metaphosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Molybdenate*	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Nitrate, 2N	N0674-70	1	1	1	X	X	X	2	1	1	2	X	1	X	X	3	1	X	X
Ammonium Nitrite	N0674-70	1	1	1	X	1	1	2	1	1	X	X	1	1	1	1	1	X	2
Ammonium Oxalate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Perchlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Perchloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Ammonium Persulfate 10%	E0540-80	4	4	1	X	X	X	2	1	4	4	4	1	X	1	1	X	X	X
Ammonium Persulfate Solution	E0540-80	4	4	1	X	1	1	2	X	4	4	4	1	X	1	1	X	X	X
Ammonium Phosphate	N0674-70	1	1	1	4	1	1	2	1	1	X	X	1	X	1	1	1	X	1
Ammonium Phosphate, Dibasic	N0674-70	1	1	1	X	1	1	2	1	1	X	X	1	X	1	1	1	X	1
Ammonium Phosphate, Mono-Basic	N0674-70	1	1	1	X	1	1	2	1	1	X	X	1	X	1	1	1	X	1
Ammonium Phosphate, Tribasic	N0674-70	1	1	1	X	1	1	2	1	1	X	X	1	X	1	1	1	X	1
Ammonium Phosphite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Picrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Polysulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Salicylate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Salts	N0674-70	1	1	1	3	1	1	2	1	1	3	X	1	X	1	1	1	3	1
Ammonium Sulfamate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Sulfate	N0674-70	1	1	1	4	1	1	2	1	2	4	X	1	1	1	1	1	X	X
Ammonium Sulfate Nitrate	N0674-70	1	1	1	4	1	1	2	1	2	4	X	1	1	1	1	1	X	X
Ammonium Sulfide	N0674-70	1	1	1	4	1	1	2	1	2	4	X	1	1	1	1	1	X	X
Ammonium Sulfite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Thiocyanate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Thioglycolate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Thiosulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Tungstate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ammonium Valerate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Amyl Acetate	N0674-70	1	1	3	4	1	1	3	4	4	4	4	3	4	4	4	4	4	4
Amyl Alcohol	E0540-80	2	2	1	2	1	1	1	2	2	4	4	1	2	2	2	2	1	4
Amyl Borate	N0674-70	1	1	4	1	1	1	2	1	4	X	X	4	4	4	4	1	X	X
Amyl Butyrate	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Amyl Chloride	V1164-75	X	X	4	1	1	1	2	4	4	4	X	4	4	4	4	4	2	4
Amyl Chloronaphthalene	V1164-75	4	4	4	1	1	1	2	4	4	4	X	4	4	4	4	4	2	4
Amyl Cinnamic Aldehyde	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Amyl Laurate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Amyl Mercaptan	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Amyl Naphthalene	V1164-75	4	4	4	1	1	1	2	4	4	2	4	4	4	4	4	4	1	4
Amyl Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Amyl Nitrite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Nitrile (General Service)	-34°C to 121°C (-30°F to 250°F)*	AFLAS	-9°C to 232°C (15°F to 450°F)*
Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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1 - Satisfactory
2 - Fair (usually OK for static seal)
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4 - Unsatisfactory
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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Amyl Phenol	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Amyl Propionate	N0674-70	1	1	4	1	2	1	X	2	4	1	1	4	4	4	4	2	1	2
Anderol, L- 826 (di-ester)	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	4
Anderol, L- 829 (di-ester)	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	4
Anderol, L-774 (di-ester)	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	4
ANG-25 (Di-ester Base) (TG749)	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	2
ANG-25 (Glyceral Ester)	E0540-80	2	2	1	1	1	1	1	2	2	4	4	2	2	2	2	2	2	2
Aniline	E0540-80	4	4	2	3	1	1	2	4	4	4	4	2	4	4	4	4	3	4
Aniline Dyes	E0540-80	4	4	2	2	1	1	2	2	2	4	4	2	2	2	2	2	2	3
Aniline Hydrochloride	E0540-80	2	2	2	2	1	1	2	4	3	4	4	2	4	2	2	4	2	3
Aniline Oil	E0540-80	4	4	2	3	2	2	2	4	4	4	4	2	4	4	4	4	3	4
Aniline Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Aniline Sulfite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Animal Fats	N0674-70	1	1	2	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Animal Oil (Lard Oil)	N0674-70	1	1	2	1	1	1	2	2	4	1	2	2	4	4	4	2	1	2
Anisole	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Anisoyl Chloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
AN-O-3 Grade M	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	2	1	2
AN-O-366	N0674-70	1	1	4	1	1	1	2	2	4	1	1	4	4	4	4	2	1	4
AN-O-6	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	2	1	4
Ansul Ether 161 or 181	V3819-75	3	3	3	4	1	1	3	4	4	4	2	3	4	4	4	4	3	4
Anthracene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Anthranilic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Anthraquinone	V3819-75	X	X	X	X	2	1	X	X	X	X	X	X	X	X	X	X	X	X
Anti-freeze Solutions	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Antimony Chloride	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	2	1	4
Antimony Pentachloride	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	2	1	4
Antimony Pentafluoride	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Antimony Sulfate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Antimony Tribromide	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	2	1	4
Antimony Trichloride	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	2	1	4
Antimony Trifluoride	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	2	1	4
Antimony Trioxide	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	2	1	4
AN-VV-O-366b Hydr. Fluid	N0674-70	1	1	4	1	1	1	1	2	4	2	2	4	4	4	4	2	1	4
Aqua Regia	V3819-75	4	3	3	2	2	2	3	4	X	X	X	X	X	X	X	X	X	X
Arachidic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Argon	B0612-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Armor All	N0674-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Aroclor, 1248	V1164-75	3	3	2	1	1	1	1	4	4	4	4	2	4	4	4	4	2	2
Aroclor, 1254	V1164-75	4	4	2	1	1	1	1	4	4	4	4	4	4	4	4	4	2	3

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Parker Hannifin Corporation • O-Ring Division
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2 - Fair (usually OK for static seal)
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x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Aroclor, 1260	V1164-75	1	1	X	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1
Aromatic Fuel -50%	V1164-75	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Arsenic Acid	E0540-80	1	1	1	1	1	1	1	1	1	3	3	1	1	1	2	1	1	1
Arsenic Oxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Arsenic Trichloride	N0674-70	1	1	4	4	1	1	X	1	X	X	X	X	X	X	X	X	X	X
Arsenic Trioxide	N0674-70	1	1	4	4	1	1	X	1	X	X	X	X	X	X	X	X	X	X
Arsenic Trisulfide	N0674-70	1	1	4	4	1	1	X	1	X	X	X	X	X	X	X	X	X	X
Arsenites	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Arsine	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Aryl Orthosilicate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Ascorbic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Askarel Transformer Oil	V1164-75	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Aspartic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Asphalt	V1164-75	2	2	4	1	1	1	2	2	4	2	2	4	4	4	4	2	2	4
ASTM Oil, No. 1	N0674-70	1	1	4	1	1	1	1	1	4	1	1	4	4	4	4	2	1	1
ASTM Oil, No. 2	N0674-70	1	1	4	1	1	1	1	2	4	1	2	4	4	4	4	4	1	4
ASTM Oil, No. 3	N0674-70	1	1	4	1	1	1	1	4	4	1	2	4	4	4	4	4	1	3
ASTM Oil, No. 4	V1164-75	2	2	4	1	1	1	1	4	4	2	4	4	4	4	4	4	2	4
ASTM Oil, No. 5	V1164-75	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
ASTM Reference Fuel A	N0674-70	1	1	4	1	1	1	1	2	4	2	1	4	4	4	4	2	1	4
ASTM Reference Fuel B	N1500-75	1	1	4	1	1	1	1	4	4	4	2	4	4	4	4	4	1	4
ASTM Reference Fuel C	V1164-75	2	2	4	1	1	1	1	4	4	4	4	4	4	4	4	4	2	4
ASTM Reference Fuel D	V1164-75	2	2	4	1	1	1	4	4	X	X	X	X	X	X	X	X	X	X
ATL-857	V1164-75	2	2	4	1	1	1	1	4	4	2	4	4	4	4	4	4	2	4
Atlantic Dominion F	N0674-70	1	1	4	1	1	1	2	2	4	1	2	4	4	4	4	4	1	4
Atlantic Utro Gear-e	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Atlantic Utro Gear-EP Lube	V1164-75	1	1	4	1	1	1	2	2	4	1	1	4	4	4	4	4	1	4
Aure 903R (Mobil)	N0304-75	1	1	4	1	1	1	2	2	4	1	1	4	4	4	2	4	4	4
AUREX 256	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Automatic Transmission Fluid	N0674-70	1	1	4	1	1	1	2	2	4	1	2	4	4	4	4	3	X	4
Automotive Brake Fluid	E0667-70	3	3	1	4	1	1	2	2	1	4	4	2	X	X	X	2	4	3
AXAREL 9100	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Azobenzene	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
— B —																			
Bardol B	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Barium Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Barium Chlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Barium Chloride	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Barium Cyanide	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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Barium Hydroxide	N0674-70	1	1	1	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1
Barium Iodide	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Barium Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Barium Oxide	N0674-70	1	1	1	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1
Barium Peroxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Barium Polysulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Barium Salts	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Barium Sulfate	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Barium Sulfide	N0674-70	1	1	1	1	1	1	1	1	2	4	1	1	2	1	1	1	1	1
Bayol 35	N0674-70	1	1	4	1	1	1	2	2	4	1	2	4	4	4	4	4	1	4
Bayol D	N0674-70	1	1	4	1	1	1	2	2	4	1	4	4	4	4	4	4	1	4
Beer	E3609-70	1	1	1	1	1	1	1	1	1	4	2	1	1	1	1	1	1	1
Beet Sugar Liquids	N0674-70	1	1	1	1	1	1	1	1		X	X	X	X	X	X	X	X	X
Beet Sugar Liquors	N0674-70	1	1	1	1	1	1	1	2	1	4	4	1	1	1	1	1	1	1
Benzaldehyde	E0540-80	4	4	1	4	1	1	2	4	4	4	4	1	4	4	4	1	4	2
Benzaldehyde Disulfonic Acid	FF200-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Benzamide	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzanthrone	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzene	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	3	4
Benzene Hexachloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Benzenesulfonic Acid 10%	V1164-75	4	4	4	1	1	1	2	2	4	4	4	4	4	4	4	1	2	4
Benzidine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzidine 3 Sulfonic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzil	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzilic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzine (Ligroin)	N0674-70	1	1	4	1	1	1	2	2	4	1	2	4	4	4	4	3	1	4
Benzocatechol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzochloride	V1164-75	4	4	1	1	1	1	1	4	4	4	X	2	4	4	4	4	1	X
Benzoic Acid	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Benzoin	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzonitrile	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Benzophenone	V1164-75	X	X	2	1	1	1	2	X	4	4	4	2	4	4	X	X	1	X
Benzoquinone	V1164-75	X	X	2	1	1	1	2	X	4	4	4	2	4	4	X	X	X	X
Benzotrichloride	V1164-75	4	4	1	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Benzotrifluoride	V1164-75	4	4	1	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Benzoyl Chloride	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzoyl Peroxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Benzoylsulfonilic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzyl Acetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Benzyl Alcohol	V1164-75	4	4	2	1	1	1	2	2	4	4	4	2	4	4	4	2	2	2

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Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Benzyl Amine	FF500-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Benzyl Benzoate	V1164-75	4	4	4	1	1	1	2	4	4	4	4	2	4	4	4	4	1	4
Benzyl Bromide	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	1	4
Benzyl Butyl Phthalate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Benzyl Chloride	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	1	4
Benzyl Phenol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Benzyl Salicylate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Beryllium Chloride	N0674-70	1	1	1	1	1	1	1	3	3	3	3	1	3	3	3	3	3	3
Beryllium Fluoride	N0674-70	1	1	1	1	1	1	1	3	3	3	3	1	3	3	3	3	3	3
Beryllium Oxide	N0674-70	1	1	1	1	1	1	1	3	3	3	3	1	3	3	3	3	3	3
Beryllium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Bismuth Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Bismuth Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Bismuth Oxychloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Bittern	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Black Liquor	E0540-80	2	X	1	1	4	3	1	1	X	X	X	X	X	X	X	X	X	X
Black Point 77	N0674-70	1	1	1	1	1	1	1	3	3	3	3	1	3	3	3	3	3	3
Blast Furnace Gas	S0604-70	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	1
Bleach Liquor	E0540-80	3	3	1	1	1	1	1	2	3	4	4	1	2	2	3	1	2	2
Bleach Solutions	E0540-80	X	X	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Blood	E3609-70	2	0	1	1	1	1	3	1	X	X	X	X	X	X	X	X	X	2
Borax	E0540-80	2	2	1	1	1	1	1	4	2	2	1	1	2	2	2	4	2	2
Borax Solutions	E0540-80	X	X	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Bordeaux Mixture	E0540-80	2	2	1	1	1	1	1	2	2	4	4	1	2	2	2	1	2	2
Boric Acid	N0674-70	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1
Boric Oxide	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Borneol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Bornyl Acetate	V1164-75	2	2	4	1	2	1	X	4	4	4	3	4	4	4	4	4	2	X
Bornyl Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Bornyl Formate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Boron Fluids (HEF)	V1164-75	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Boron Hydride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Boron Phosphate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Boron Tribromide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Boron Trichloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Boron Trifluoride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Boron Trioxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
BP Turbine Oil 2197	VM835-75	4	4	4	3	1	1	2	4	4	4	4	4	4	4	4	4	4	4
Brake Fluid DOT 3 (Glycol Type)	E0667-70	3	3	1	4	1	1	2	2	1	X	4	2	X	X	X	2	4	3
Brake Fluid DOT 4	E0667-70	3	3	1	4	1	1	2	2	1	X	4	2	X	X	X	2	4	3

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Brake Fluid DOT 5	E0667-70	2	1	1	1	1	1	1	2	X	X	X	1	X	X	X	X	3	4
Bray GG-130	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	4
Brayco 719-R (VV-H-910)	E0603-70	3	3	1	4	1	1	2	2	X	4	4	2	2	2	2	2	2	2
Brayco 885 (MIL-L-6085A)	V1164-75	2	2	4	1	1	1	2	4	4	2	1	4	4	4	4	4	2	4
Brayco 910	E0540-80	2	2	1	4	1	1	2	2	2	3	3	1	1	1	1	1	4	4
Bret 710	E0540-80	2	2	1	4	1	1	2	2	2	3	3	1	1	1	1	1	4	4
Brine	N0674-70	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Brine (Seawater)	N0674-70	1	1	1	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Brom - 113	V3819-75	3	3	4	X	X	X	3	4	4	X	X	4	X	X	X	4	X	4
Brom - 114	V3819-75	2	2	4	2	1	1	3	2	4	X	X	4	4	4	4	2	X	4
Bromic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Bromine	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Bromine Pentafluoride	Factory	4	4	4	4	2	2	3	4	4	4	4	4	4	4	4	4	4	4
Bromine Trifluoride	Factory	4	4	4	4	2	2	3	4	4	4	4	4	4	4	4	4	4	4
Bromine Water	V1164-75	4	4	2	1	1	1	3	4	4	4	4	4	4	4	4	1	2	4
Bromobenzene	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	1	4
Bromobenzene Cyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Bromochlorotrifluoroethane (Halothane)	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Bromoform	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Bromomethane (Methyl Bromide)	V1164-75	2	2	4	1	1	1	1	4	4	3	X	4	4	4	4	4	1	X
Bromotrifluoroethylene (BFE)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Bromotrifluoromethane (F-13B1)	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Brucine Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Buffered Oxide Etchants	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Bunker Oil	N0674-70	1	1	4	1	1	1	2	4	4	1	2	4	4	4	4	4	1	2
Bunker's "C" (Fuel Oil)	N0674-70	1	X	X	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Butadiene (Monomer)	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	1	4
Butane	N0674-70	1	1	4	1	1	1	2	1	3	1	1	4	4	4	4	2	3	4
Butane, 2, 2-Dimethyl	N0674-70	1	1	4	1	1	1	2	2	3	1	4	4	4	4	4	2	3	4
Butane, 2, 3-Dimethyl	N0674-70	1	1	4	1	1	1	2	2	3	1	4	4	4	4	4	2	3	4
Butanedial	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Butanol (Butyl Alcohol)	N0674-70	1	1	2	1	1	1	1	1	1	4	4	2	1	1	1	1	1	2
Butene 2-Ethyl (1-Butene 2-Ethyl)	N0674-70	1	1	4	1	1	1	1	4	4	1	4	4	4	4	4	4	3	4
Butter	E1028-70	1	1	1	1	1	1	1	2	X	X	1	3	X	X	X	X	X	2
Butter-Animal Fat	N0508-75	1	1	1	1	1	1	1	2	4	1	1	2	4	4	4	2	1	2
Butyl Acetate or n-Butyl Acetate	E0540-80	4	4	2	4	1	1		4	4	4	4	2	4	4	4	4	4	4
Butyl Acetyl Ricinoleate	E0540-80	2	2	1	1	1	1	1	2	4	X	4	1	4	4	4	2	2	X
Butyl Acrylate	E0540-80	4	4	1	4	1	1	4	4	4	4	X	4	4	4	4	4	4	2
Butyl Alcohol	N0674-70	1	1	2	1	1	1	1	1	1	4	4	2	1	1	1	1	1	2
Butyl Alcohol (Secondary)	V1164-75	2	2	2	1	1	1	1	2	2	4	4	2	2	2	2	2	2	2

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Butyl Alcohol (Tertiary)	V1164-75	2	2	2	1	1	1	1	2	2	4	4	2	2	2	2	2	2	2
Butyl Amine or N-Butyl Amine	N0674-70	1	1	3	4	1	1	3	4	4	4	4	4	4	4	4	4	4	4
Butyl Benzoate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyl Benzoate or n-Butyl Benzoate	E0540-80	4	4	1	1	1	1		4	2	4	X	1	4	4	4	4	1	X
Butyl Benzolate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Butyl Butyrate or n-Butyl Butyrate	E0540-80	4	4	1	1	1	1		4	4	4	X	1	4	4	4	4	1	X
Butyl Carbitol	E0540-80	4	4	1	3	1	1	2	3	4	4	X	1	4	4	4	2	4	4
Butyl Cellosolve	E0540-80	3	3	2	4	1	1	2	3	4	4	4	2	4	4	4	4	4	X
Butyl Cellosolve Acetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyl Cellosolve Adipate	E0540-80	4	4	2	2	1	1	2	4	4	4	4	2	4	4	4	4	2	2
Butyl Chloride	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Butyl Ether or n-Butyl Ether	V3819-75	3	3	3	4	1	1		4	4	4	3	3	4	4	4	4	3	4
Butyl Glycolate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyl Lactate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyl Laurate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyl Mercaptan (Tertiary)	V1164-75	4	4	4	1	1	1		4	4	4	4	4	4	4	4	4	X	4
Butyl Methacrylate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyl Oleate	V1164-75	4	4	2	1	1	1	2	4	4	X	X	2	4	X	4	4	2	X
Butyl Oxalate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyl Stearate	V1164-75	2	2	4	1	1	1	2	4	4	X	X	4	4	4	4	4	2	X
Butylbenzoic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Butylene	V1164-75	2	2	4	1	1	1	2	3	4	4	4	4	4	4	4	4	2	4
Butyraldehyde	E0540-80	4	4	2	4	1	1	2	4	4	4	4	2	4	4	4	4	4	4
Butyric Acid	V1164-75	4	4	2	2	1	1	1	4	4	4	X	2	4	X	X	4	X	X
Butyric Anhydride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyrolacetone	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Butyryl Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
— C —																			
Cadmium Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cadmium Cyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cadmium Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cadmium Oxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cadmium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cadmium Sulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcine Liquors	N0674-70	1	1	1	1	1	1	1	X	X	4	4	1	X	X	X	X	1	X
Calcium Acetate	E0540-80	2	2	1	4	1	1	2	2	4	4	4	1	4	1	1	2	4	4
Calcium Arsenate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Benzoate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Calcium Bicarbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Bisulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Bisulfite	E0540-80	2	2	1	2	1	1	1	2	2	3	3	1	4	4	4	1	3	3

Approximate Service Temperature Ranges for Commonly Used Basic Polymer Types*

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Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Calcium Bromide	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calcium Carbide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Calcium Carbonate	N0674-70	1	1	1	1	1	1	1	1	1	3	3	1	1	1	1	1	1	1
Calcium Chlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Chloride	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calcium Chromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Cyanamide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Calcium Cyanide	N0674-70	1	1	1	X	1	1	1	1	1	X	X	1	1	1	1	1	X	1
Calcium Fluoride	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calcium Gluconate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Hydride	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calcium Hydrosulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Hydroxide	N0674-70	1	1	1	1	1	1	1	1	1	4	2	1	1	1	1	1	1	1
Calcium Hypochlorite	E0540-80	2	2	1	1	1	1	1	2	2	4	4	1	2	2	2	1	2	2
Calcium Hypophosphite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Lactate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Naphthenate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Calcium Nitrate	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Calcium Oxalate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Oxide	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calcium Permanganate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Calcium Peroxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Calcium Phenolsulfonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Phosphate	N0674-70	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	X	1
Calcium Phosphate Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Propionate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Pyridine Sulfonate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Calcium Salts	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Calcium Silicate	N0674-70	1	1	1	1	1	1	1	1	1	X	X	1	1	1	1	1	X	X
Calcium Stearate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Calcium Sulfamate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Calcium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Sulfide	N0674-70	1	1	1	1	1	1	1	1	2	4	1	1	2	2	2	1	1	1
Calcium Sulfite	N0674-70	1	1	1	1	1	1	1	1	2	4	1	1	2	2	2	1	1	1
Calcium Thiocyanate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Calcium Thiosulfate	E0540-80	2	2	1	1	1	1	1	1	2	4	1	1	2	2	2	1	1	1
Calcium Tungstate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Caliche Liquors	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Camphene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Camphor	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X

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Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
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Parker Hannifin Corporation • O-Ring Division
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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Camphoric Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Cane Sugar Liquors	N0674-70	1	1	1	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1
Capric Acid	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Caproic Acid	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Caproic Aldehyde	E0540-80	X	X	2	4	1	1	3	X	X	4	4	2	2	2	2	X	4	2
Caprolactam	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Capronaldehyde	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Carbamate	V1164-75	3	3	2	1	1	1	1	2	4	4	4	2	4	4	4	2	1	X
Carbazole	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Carbitol	E0540-80	2	2	2	2	1	1	1	2	2	4	4	2	2	2	2	2	2	2
Carbolic Acid (Phenol)	V0494-70	4	4	2	1	1	1	1	4	4	4	3	2	4	4	4	4	1	4
Carbon Bisulfide	V1164-75	4	4	4	1	1	1	2	4	4	3	X	4	4	4	4	4	1	4
Carbon Dioxide	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Carbon Dioxide (Explosive Decompression Use)	E0962-90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Carbon Disulfide	V1164-75	4	4	4	1	1	1	2	4	4	3	X	4	4	4	4	4	1	4
Carbon Fluorides	V1164-75	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Carbon Monoxide	N0674-70	1	1	1	1	1	1	1	2	2	X	1	1	2	2	2	2	2	1
Carbon Tetrabromide	V1164-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Carbon Tetrachloride	V1164-75	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Carbon Tetrafluoride	V1164-75	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Carbonic Acid	E0540-80	2	2	1	1	1	1	1	1	2	1	1	1	2	1	1	1	1	1
Casein	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Castor Oil	N0674-70	1	1	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
Caustic Lime	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Caustic Potash	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Caustic Soda (Sodium Hydroxide)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cellosolve	E0540-80	4	4	2	4	1	1	3	4	4	4	4	2	4	4	4	4	4	4
Cellosolve, Acetate	E0540-80	4	4	2	4	1	1	2	4	4	4	4	2	4	4	4	4	4	4
Cellosolve, Butyl	E0540-80	4	4	2	4	1	1	2	4	4	4	4	2	4	4	4	4	4	4
Celluguard	N0674-70	1	1	1	1	1	1	1	1	1	3	4	1	1	1	1	1	1	1
Cellulose Acetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Cellulose Acetate Butyrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cellulose Ether	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Cellulose Nitrate*	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cellulose Tripropionate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cellulube (Phosphate Esters)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cellutherm 2505A	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	4
Cerium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cerous Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cerous Fluoride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Cerous Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Cesium Formate	E0962-90	X	X	2	4	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cetane (Hexadecane)	N0674-70	1	1	4	1	1	1	2	2	4	1	4	4	4	4	4	2	3	4
Cetyl Alcohol	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Chaulmoogric Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
China Wood Oil (Tung Oil)	N0674-70	1	1	4	1	1	1	2	2	4	X	3	3	4	4	4	3	2	4
Chloral	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chloramine	E1257-70	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chloranthraquinone	V1164-75	2	2	4	1	2	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlordane	V1164-75	2	2	4	1	1	1	2	3	4	X	X	4	4	4	4	3	2	4
Chlorextol	V1164-75	2	2	4	1	1	1	2	2	4	2	4	4	4	4	4	4	2	4
Chloric Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chlorinated Solvents, Dry	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	1	4
Chlorinated Solvents, Wet	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	1	4
Chlorine (Dry)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlorine (Plasma)	V3819-75	X	X	X	X	3	2	X	X	X	X	X	X	X	X	X	X	X	X
Chlorine (Wet)	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Chlorine Dioxide	V1164-75	4	4	3	1	1	1	2	4	4	4	4	3	4	4	4	3	2	X
Chlorine Dioxide, 8% Cl as NaClO2 in solution	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	X
Chlorine Trifluoride	Factory	4	4	4	4	2	2	4	4	4	4	4	4	4	4	4	4	4	4
Chlorine Water (Chemical Processing)	V1164-75	3	3	2	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Chloro 1-Nitro Ethane (1-Chloro 1-Nitro Ethane)	Factory	4	4	4	4	1	1	3	4	4	4	4	4	4	4	4	4	4	4
Chloro Oxyfluorides	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Chloro Xylenols	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chloroacetaldehyde	E0540-80	3	3	1	3	2	2	X	1	1	4	4	1	1	1	1	1	1	2
Chloroacetic Acid	E0540-80	4	4	2	4	1	1	2	4	4	4	4	2	4	4	4	1	4	X
Chloroacetone	E0540-80	4	4	1	4	2	1	2	4	4	4	4	2	4	4	4	4	4	4
Chloroacetyl Chloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chloroamino Benzoic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chloroaniline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chlorobenzaldehyde	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chlorobenzene	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Chlorobenzene (Mono)	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Chlorobenzene Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlorobenzene Trifluoride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlorobenzochloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlorobenzotrifluoride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlorobromo Methane	V1164-75	4	4	2	1	1	1	1	4	4	4	4	2	4	4	4	4	2	4
Chlorobromopropane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlorobutadiene	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4

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Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Chlorobutane (Butyl Chloride)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Chlorododecane	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	1	4
Chloroethane	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Chloroethane Sulfonic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chloroethylbenzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chloroform	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	4	4
Chlorohydrin	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chloronaphthalene or o-Chloronaphthalene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Chloronitrobenzene	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chlorophenol or o-Chlorophenol	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Chloropicrin	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chloroprene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlorosilanes	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chlorosulfonic Acid	Factory	4	4	4	4	1	1	4	4	4	4	4	4	4	4	4	4	4	4
Chlorotoluene	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Chlorotoluene Sulfonic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Chlorotoluidine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chlorotrifluoroethylene (CTFE)	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Chlorox	E0540-80	2	2	1	1	1	1	1	2	4	4	4	2	4	4	4	2	1	X
Chloroxylols	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cholesterol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chrome Alum	N0674-70	1	1	1	1	1	1	1	1	1	4	X	1	1	1	1	1	X	1
Chrome Plating Solutions	V1164-75	4	4	2	1	1	1	1	4	4	4	4	2	4	4	4	4	2	2
Chromic Acid	V1164-75	4	4	2	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Chromic Chloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chromic Fluorides	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chromic Hydroxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chromic Nitrates	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chromic Oxide	V1164-75	4	4	2	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Chromic Phosphate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chromic Sulfate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Chromium Potassium Sulfate (Alum)	V1164-75	2	X	2	1	1	1	2	X	X	X	X	X	X	X	X	X	X	X
Chromyl Chlorides	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cinnamic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Cinnamic Alcohol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Cinnamic Aldehyde	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Circo Light Process Oil	N0674-70	1	1	4	1	1	1	2	2	4	1	1	4	4	4	4	2	1	4
Citric Acid	C0873-70	1	1	1	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1
City Service #65 #120 #250	N0674-70	1	1	4	1	1	1	2	2	4	1	2	4	4	4	4	4	1	4
City Service Koolmoter-AP Gear Oil 140-EP Lube	N0674-70	1	1	4	1	1	1	2	2	4	1	1	4	4	4	4	2	1	4

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City Service Pacemaker #2	N0674-70	1	1	4	1	1	1	2	2	4	1	2	4	4	4	4	4	1	4
Clorox	E0540-80	2	2	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Coal Tar	N0674-70	1	X	X	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cobalt Chloride	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Cobalt Chloride, 2N	N0674-70	1	1	1	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1
Cobaltous Acetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Cobaltous Bromide	N0674-70	1	1	1	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1
Cobaltous Linoleate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cobaltous Naphthenate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cobaltous Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Coconut Oil	N0674-70	1	1	3	1	1	1	2	3	4	1	3	3	4	4	4	3	1	1
Cod Liver Oil	N0674-70	1	1	1	1	1	1	1	2	4	1	1	1	4	4	4	2	1	2
Codeine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Coffee	N0508-75	1	1	1	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1
Coke Oven Gas	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	2
Coliche Liquors	C0873-70	2	2	2	X	X	X	2	1	2	X	X	2	1	1	1	X	X	X
Convelex 10	Factory	4	4	X	X	X	X	X	4	4	X	2	4	4	4	4	4	X	4
Coolanol 20 25R 35R 40& 45A (Monsanto)	V1164-75	1	1	3	1	1	1	2	2	4	4	1	4	4	4	4	2	1	4
Copper Acetate	E0540-80	2	2	1	4	1	1	2	2	4	4	4	1	4	1	1	2	4	4
Copper Ammonium Acetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Copper Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Copper Chloride	N0674-70	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1
Copper Cyanide	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Copper Gluconate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Copper Naphthenate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Copper Nitrate	V1164-75	2	X	2	1	1	1	2	X	X	X	X	X	X	X	X	X	X	X
Copper Oxide	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Copper Salts	N0674-70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Copper Sulfate	N0674-70	1	1	1	1	1	1	1	1	2	4	1	2	2	2	2	1	1	1
Copper Sulfate 10%	N0674-70	1	1	1	1	1	1	1	1	2	4	2	2	2	2	2	1	1	1
Copper Sulfate 50%	N0674-70	1	1	1	1	1	1	1	1	2	4	3	2	2	2	1	1	1	1
Corn Oil	N0674-70	1	1	3	1	1	1	2	3	4	1	1	3	4	4	4	2	1	1
Cottonseed Oil	N0674-70	1	1	3	1	1	1	2	3	4	1	1	3	4	4	4	2	2	1
Creosote, Coal Tar	N0674-70	1	1	4	1	1	1	2	2	4	1	3	4	4	4	4	4	1	4
Creosote, Wood	N0674-70	1	1	4	1	1	1	2	2	4	1	3	4	4	4	4	4	1	4
Cresol (Methyl Phenol)	V1164-75	X	X	X	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cresols	V0834-70	4	4	4	2	1	1	2	4	4	4	X	4	4	4	4	4	X	4
Cresylic Acid	V0834-70	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	X	4
Crotonaldehyde	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Crotonic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X

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Crude Oil	V1164-75	2	2	4	1	1	1	2	4	4	1	X	4	4	4	4	4	2	4
Cumaldehyde	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Cumene	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Cumene Hydroperoxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cupric Sulfate	V1164-75	2	X	2	1	1	1	2	X	X	X	X	X	X	X	X	X	X	X
Cutting Oil	N0674-70	1	1	4	1	1	1	2	2	4	1	1	4	4	4	4	2	1	4
Cyanamide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cyanides	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cyanogen Chloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cyanogen Gas	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cyanohydrin	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cyanuric Chloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cyclohexane	N0674-70	1	1	4	1	1	1	2	3	4	2	1	4	4	4	4	4	1	4
Cyclohexanol	N0674-70	1	1	4	1	1	1	2	2	4	X	X	4	4	4	4	2	1	4
Cyclohexanone	E0540-80	4	4	2	4	1	1	3	4	4	4	4	2	4	4	4	4	4	4
Cyclohexene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Cyclohexylamine	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Cyclohexylamine Carbonate	FF500-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Cyclohexylamine Laurate	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Cyclopentadiene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Cyclopentane	N0674-70	1	1	4	1	1	1	2	3	4	2	1	4	4	4	4	4	1	4
Cyclopolyolefins	V1164-75	1	1	4	1	1	1	2	3	4	2	1	4	4	4	4	4	1	4
Cymene or p-Cymene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
— D —																			
DDT (Dichlorodiphenyltrichloroethane)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Decalin	V1164-75	4	4	4	1	1	1	2	4	4	X	X	4	4	4	4	4	1	4
Decane	N0674-70	1	1	4	1	1	1	2	3	4	1	2	4	4	4	4	3	1	2
Delco Brake Fluid	E0667-70	3	3	1	4	1	1	2	2	1	X	X	2	X	X	X	2	4	3
Denatured Alcohol	N0674-70	1	1	1	1	1	1	1	1	1	4	4	1	1	1	1	1	1	1
Detergent, Water Solution	E0540-80	1	1	1	1	1	1	1	2	2	4	4	1	2	2	2	2	1	1
Developing Fluids (Photo)	N0674-70	1	1	2	1	1	1	1	1	2	X	X	2	2	1	1	1	1	1
Dexron	N0674-70	1	1	4	1	1	1	2	2	4	1	2	4	4	4	4	4	2	4
Dextrin	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Dextro Lactic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dextron	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Dextrose	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
DF200	E0540-80	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DI Water	E0540-80	2	X	1	2	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Diacetone	E0540-80	4	4	1	4	1	1	2	4	4	4	4	1	4	4	4	4	4	4
Diacetone Alcohol	E0540-80	4	4	1	4	1	1	2	2	4	4	4	1	4	4	4	2	4	4

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Nitrile (General Service)	-34°C to 121°C (-30°F to 250°F)*	AFLAS	-9°C to 232°C (15°F to 450°F)*
Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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COMPOUND COMPATIBILITY RATING
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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Dialkyl Sulfates	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Diallyl Ether	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Diallyl Phthalate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Diamylamine	N0674-70	1	1	4	1	2	1	X	2	4	1	1	4	4	4	4	2	1	2
Diazinon	V1164-75	3	3	4	2	1	1	2	3	4	X	X	4	4	4	4	3	2	4
Dibenzyl (sym-Diphenylethane)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dibenzyl Ether	Factory	4	4	2	4	1	1	2	4	4	X	2	2	4	4	4	4	X	X
Dibenzyl Sebacate	V1164-75	4	4	2	2	1	1	2	4	4	4	2	2	4	4	4	4	3	3
Diborane	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Dibromoethane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dibromoethyl Benzene	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Dibutyl Cellosolve Adipate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dibutyl Ether	Factory	4	4	3	3	1	1	3	4	4	3	2	3	4	4	4	4	3	4
Dibutyl Methylenedithio Glycolate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dibutyl Phthalate	E0540-80	4	4	2	3	2	1	3	4	4	4	3	3	4	4	4	4	3	2
Dibutyl Sebacate	E0540-80	4	4	2	2	1	1	2	4	4	4	4	2	4	4	4	4	2	2
Dibutyl Thioglycolate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dibutyl Thiourea	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dibutylamine	E0540-80	4	4	1	4	1	1	4	3	4	4	4	4	4	4	4	4	4	3
Dichloroacetic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichloroaniline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dichlorobenzene or o-Dichlorobenzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Dichlorobenzene or p-Dichlorobenzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Dichlorobutane	V1164-75	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Dichlorobutene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichlorodiphenyl-Dichloroethane (DDD)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichloroethane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichloroethylene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichlorohydrin	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dichloroisopropyl Ether	Factory	4	4	3	3	1	1	3	4	4	3	2	4	4	4	4	4	3	4
Dichloromethane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichlorophenol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichlorophenoxyacetic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichloropropane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichloropropene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dichlorosilane	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Dicyclohexylamine	N0674-70	1	1	4	4	1	1	4	4	4	4	4	4	4	4	4	4	4	2
Dicyclohexylammonium Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dicyclopentadiene	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Dieldrin	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Diesel Oil	N0674-70	1	1	4	1	1	1	2	3	4	1	3	4	4	4	4	3	1	4
Di-ester Lubricant MIL-L-7808	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	4
Di-ester Synthetic Lubricants	V1164-75	2	2	4	1	1	1	2	4	4	2	4	4	4	4	4	4	2	4
Diethanolamine (DEA)	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Diethyl Benzene	V1164-75	X	X	X	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Diethyl Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Diethyl Ether	Factory	4	4	4	4	1	1	4	3	4	3	1	4	4	4	4	4	3	4
Diethyl Phthalate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Diethyl Sebacate	V1164-75	2	2	2	2	1	1	2	4	4	4	4	2	4	4	4	4	2	2
Diethyl Sulfate	E0540-80	4	X	1	3	1	1	2	4	X	X	X	X	X	X	X	X	X	2
Diethylamine	E0540-80	2	X	1	4	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Diethylaniline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Diethylene Glycol	E0540-80	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	1	1	2
Diethylene Glycol B	V3819-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Diethylenetriamine	FF500-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Difluorodibromomethane	E0540-80	4	4	2	X	1	1	2	4	4	4	4	2	4	4	4	4	X	4
Difluoroethane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Difluoromonochloroethane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Diglycol Chloroformate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Diglycolamine	C0873-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Diglycolic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dihydroxydiphenylsulfone	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Diisobutyl Ketone	E0540-80	X	X	1	X	2	1	1	X	X	X	X	1	X	X	X	X	X	X
Diisobutylcarbinol	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Diisobutylene	V1164-75	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	3	4
Diisooctyl Sebacate	V1164-75	3	3	3	2	1	1	2	4	4	4	4	4	4	4	4	4	3	3
Diisopropyl Ether (DIPE)	V3819-75	X	X	X	X	2	1	X	X	X	X	X	X	X	X	X	X	X	X
Diisopropyl Ketone	E0540-80	4	4	1	4	2	1	2	4	4	4	4	1	4	4	4	4	4	4
Diisopropylbenzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Diisopropylidene Acetone	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dimethoxyethane (DME)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dimethyl Acetamide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	4	2
Dimethylaniline (Xylidine)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dimethyldisulfide (DMDS)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Dimethyl Ether	N0674-70	1	X	2	2	1	1	4	3	X	X	X	X	X	X	X	X	X	X
Dimethyl Formaldehyde	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dimethyl Formamide (DMF)	E0540-80	2	2	1	4	1	1	2	3	4	4	4	2	X	X	4	4	4	2
Dimethylhydrazine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dimethyl Phenyl Carbinol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dimethyl Phenyl Methanol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X

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Dimethyl Phthalate	V1164-75	4	4	2	2	1	1	2	4	4	4	X	2	4	4	4	4	2	X
Dimethyl Sulfoxide (DMSO)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Dimethyl Terephthalate (DMT)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dimethylamine (DMA)	E0540-80	2	2	1	4	1	1	2	2	2	4	3	2	2	2	2	3	4	2
Dinitrochlorobenzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dinitrogen Tetroxide	FF500-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Dinitrotoluene (DNT)	Factory	4	4	4	4	1	1	4	4	4	4	4	4	4	4	4	4	4	4
Dioctyl Phthalate	V1164-75	4	4	2	2	1	1	2	4	4	4	4	2	4	4	4	4	2	3
Dioctyl Sebacate	E0540-80	4	4	2	2	1	1	2	4	4	4	2	2	4	4	4	4	3	3
Dioctylamine	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Dioxane	E0540-80	4	4	2	4	1	1	3	4	4	4	4	2	4	4	4	4	4	4
Dioxolane	E0540-80	4	4	2	4	1	1	3	4	4	4	4	3	4	4	4	4	4	4
Dipentene	N0674-70	2	2	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Diphenyl	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	4
Diphenyl Oxides	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	4	4	4	4	2	3
Diphenylamine (DPA)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Diphenylene Oxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Diphenylpropane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Disilane	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Di-Tert-Butyl Peroxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
D-Limonene		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dodecylbenzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Dow Chemical 50-4	E0540-80	X	X	1	4	3	2	2	2	1	X	X	2	X	X	X	2	4	X
Dow Chemical ET378	Factory	4	4	X	X	X	X	X	4	4	3	2	4	4	4	4	4	X	4
Dow Chemical ET588	E0540-80	3	3	1	4	3	2	2	2	1	X	X	2	X	X	X	2	4	X
Dow Corning -11	E0540-80	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Dow Corning 1208, 4050, 6620, F-60, XF-60	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Dow Corning -1265 Fluorosilicone Fluid	E0540-80	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1
Dow Corning -200	E0540-80	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3
Dow Corning -220	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Dow Corning -3	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	2
Dow Corning -33	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Dow Corning -4	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	2
Dow Corning -44	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Dow Corning -5	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Dow Corning -510	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Dow Corning -55	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Dow Corning -550	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Dow Corning -704	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Dow Corning -705	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3

Approximate Service Temperature Ranges for Commonly Used Basic Polymer Types*

Nitrile (General Service)	-34°C to 121°C (-30°F to 250°F)*	AFLAS	-9°C to 232°C (15°F to 450°F)*
Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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2 - Fair (usually OK for static seal)
3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Dow Corning -710	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Dow Corning F-61	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Dow Guard	N0674-70	1	1	1	1	1	1	X	1	1	3	3	1	1	1	1	1	1	1
Dowanol P Mix	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Dowtherm, 209	E0540-80	3	3	1	4	1	1	X	2	X	X	X	2	X	X	X	X	3	3
Dowtherm, A	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Dowtherm, E	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Drinking Water	E3609-70	1	1	1	1	1	1	X	2	1	4	4	1	1	1	1	1	1	1
Dry Cleaning Fluids	V1164-75	3	3	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
DTE 20 Series, Mobil	V1164-75	2	2	4	1	1	1	2	1	X	2	1	4	X	X	2	2	2	4
DTE named series, Mobil, light-heavy	N0674-70	1	1	4	1	1	1	2	2	4	X	1	4	4	X	3	1	1	3
— E —																			
Elco 28-EP lubricant	N0674-70	1	1	4	1	1	1	X	3	4	1	1	4	4	4	4	4	1	2
Epichlorohydrin	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Epoxy Resins	E0540-80	X	X	1	4	1	1	X	1	X	X	X	1	X	X	X	X	X	X
Erucic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Esam-6 Fluid	E0540-80	X	X	1	4	1	1	X	2	1	X	X	2	X	X	X	2	4	X
Esso Fuel 208	N0674-70	1	1	4	1	1	1	X	2	4	1	4	4	4	4	4	3	1	4
Esso Golden Gasoline	V1164-75	2	2	4	1	1	1	X	4	4	4	4	4	4	4	4	4	1	4
Esso Motor Oil	N0674-70	1	1	4	1	1	1	X	3	4	1	4	4	4	4	4	4	1	4
Esso Transmission Fluid (Type A)	N0674-70	1	1	4	1	1	1	X	2	4	1	3	4	4	4	4	4	1	4
Esso WS2812 (MIL-L-7808A)	V1164-75	1	1	4	1	1	1	X	4	4	2	4	4	4	4	4	4	1	4
Esso XP90-EP Lubricant	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Esstic 42, 43	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Ethane	N0674-70	1	1	4	1	1	1	X	2	4	1	3	4	4	4	4	2	3	4
Ethanol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ethanol Amine	E0540-80	2	2	1	4	1	1	X	2	2	4	3	2	2	2	2	3	4	2
Ethers	V3819-75	4	4	3	3	1	1	X	4	4	3	2	4	4	4	4	4	3	4
Ethoxyethyl Acetate (EGMEEA)	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Ethyl Acetate-Organic Ester	E0540-80	4	4	2	4	2	1	X	4	4	4	4	2	4	4	4	4	4	2
Ethyl Acetoacetate	E0540-80	4	4	2	4	1	1	X	4	3	4	4	2	3	3	3	4	4	2
Ethyl Acrylate	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	2
Ethyl Alcohol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ethyl Ammonium Dichloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Ethyl Benzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	1	4
Ethyl Benzoate	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	1	4
Ethyl Bromide	V1164-75	2	2	4	1	1	1	X	4	X	X	X	4	4	4	4	4	1	X

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Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Ethyl Cellosolve	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Ethyl Cellulose	N0674-70	2	2	2	4	1	1	X	2	2	4	2	2	2	2	2	2	4	2
Ethyl Chloride	N0674-70	1	1	3	1	1	1	X	4	4	3	2	4	2	1	4	4	1	4
Ethyl Chlorocarbonate	V1164-75	4	4	2	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Ethyl Chloroformate	E0540-80	4	4	2	4	1	1	X	4	4	4	4	3	4	4	4	4	4	4
Ethyl Ether	Factory	3	3	3	4	1	1	X	4	4	4	2	3	4	4	4	4	3	4
Ethyl Formate	V1164-75	4	4	2	1	1	1	X	2	4	X	X	2	4	4	4	2	1	X
Ethyl Hexanol	N0674-70	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ethyl Lactate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ethyl Mercaptan	V1164-75	4	4	X	2	1	1	X	3	4	X	X	4	4	4	4	3	X	3
Ethyl Nitrite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ethyl Oxalate	E0540-80	4	4	1	2	1	1	X	4	4	4	X	4	4	1	4	4	2	4
Ethyl Pentachlorobenzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Ethyl Pyridine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Ethyl Silicate	E0540-80	1	1	1	1	1	1	X	1	2	X	X	1	2	2	2	2	1	X
Ethyl Stearate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Ethyl Sulfate	E0540-80	X	X	1	4	1	1	1	X	X	X	X	X	X	X	X	X	X	X
Ethyl Tertiary Butyl Ether	V3819-75	X	X	X	X	2	1	X	X	X	X	X	X	X	X	X	X	X	X
Ethyl Valerate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Ethylacrylic Acid	E0540-80	4	4	2	X	X	X	X	2	4	4	4	2	4	4	4	4	4	4
Ethylamine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ethylcyclopentane	N0674-70	1	1	4	1	1	1	X	3	4	2	1	4	4	4	4	4	1	4
Ethylene	V1164-75	3	2	4	2	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Ethylene Chloride	V1164-75	4	4	4	2	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Ethylene Chlorohydrin	V1164-75	4	4	2	1	1	1	X	2	2	4	4	2	2	2	2	2	2	3
Ethylene Cyanohydrin	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Ethylene Diamine	E0540-80	1	1	1	4	2	2	X	1	2	4	4	1	2	1	1	2	4	1
Ethylene Dibromide	V1164-75	4	4	3	1	1	1	X	4	4	4	4	3	4	4	4	4	3	4
Ethylene Dichloride	V1164-75	4	4	3	1	1	1	X	4	4	4	4	3	4	4	4	4	3	4
Ethylene Glycol	E0540-80	1	1	1	1	1	1	X	1	1	4	2	1	1	1	1	1	1	1
Ethylene Hydrochloride	V1164-75	4	4	3	1	1	1	X	4	4	4	4	3	4	4	4	4	3	4
Ethylene Oxide	V8545-75	4	4	3	4	1	1	X	4	4	4	4	3	4	4	4	4	4	4
Ethylene Oxide, (12%) and Freon 12 (80%)	V3819-75	3	3	2	4	4	2	X	4	4	4	4	2	4	4	4	4	4	4
Ethylene Trichloride	V1164-75	4	4	3	1	1	1	X	4	4	4	4	3	4	4	4	4	3	4
Ethyleneimine	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Ethylmorpholene Stannous Octotate (50/50 mixture)	E0540-80	4	4	2	4	1	1	X	X	4	X	X	2	X	X	X	X	X	X
Ethylmorpholine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Ethylsulfuric Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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— F —																			
F-60 Fluid (Dow Corning)	E0540-80	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	4
F-61 Fluid (Dow Corning)	E0540-80	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	4
Fatty Acids	V1164-75	2	2	3	1	1	1	X	2	4	X	X	3	4	4	4	2	X	3
FC-43 Heptacosofluorotri-butylamine	N0674-70	1	1	1	1	1	1	X	1	4	X	X	1	X	X	X	1	1	1
FC75 & FC77 (Fluorocarbon)	E0540-80	1	1	1	2	1	1	X	1	4	X	X	1	X	X	X	1	2	1
Ferric Acetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferric Ammonium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferric Chloride	N0674-70	1	1	1	1	1	1	X	2	1	1	1	1	1	1	1	2	1	2
Ferric Ferrocyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferric Hydroxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferric Nitrate	N0674-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	2
Ferric Persulfate	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Ferric Sulfate	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Ferrous Ammonium Citrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferrous Ammonium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferrous Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferrous Chloride	N0674-70	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Ferrous Iodide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferrous Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ferrous Tartrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Fish Oil	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Fisher Reagent	E0540-80	X	X	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fluorinated Cyclic Ethers	V3819-75	X	X	1	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Fluorine (Gas)	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Fluorine (Liquid)	V1164-75	4	4	4	2	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Fluorobenzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Fluoroboric Acid	N0674-70	1	X	1	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Fluorocarbon Oils	E0540-80	X	X	1	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Fluoroform (Trifluoromethane)	FF500-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Fluorolube	E0540-80	1	1	1	2	1	1	X	1	4	X	X	1	X	X	X	1	2	1
Fluorophosphoric Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Fluorosilicic Acid	N0674-70	1	1	2	2	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Fluorosulfonic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Formaldehyde	E0540-80	3	3	2	4	1	1	X	3	3	4	4	2	2	2	2	2	4	2
Formamide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	3	2
Formic Acid	E0540-80	X	X	1	4	1	1	3	1	X	X	X	X	X	X	X	X	X	X
Freon, 11 (Trichlorofluoromethane)	V3819-75	4	4	4	2	2	2	X	4	4	4	X	4	X	X	4	1	2	4
Freon, 112 (Tetrachlorodifluoroethane)	V1164-75	2	2	4	1	1	1	X	2	4	X	X	4	X	X	4	2	X	4
Freon, 113 (Trichlorotrifluoroethane)	C0873-70	1	1	4	2	4	3	X	1	2	X	1	4	X	X	4	1	X	4
Freon, 113 + High and Low Aniline Oil	N0674-70	1	X	X	X	4	3	4	X	X	X	X	X	X	X	X	X	X	X

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Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Freon, 114 (Dichlorotetrafluroethane)	C0873-70	1	1	1	1	2	2	X	1	1	X	X	1	X	X	1	X	X	4
Freon, 114B2	C0873-70	2	2	4	2	2	2	X	2	4	X	X	4	X	X	4	1	X	4
Freon, 115, 116	C0873-70	1	1	1	2	2	2	X	1	1	X	X	1	X	X	1	X	X	X
Freon, 12 (Dichlorodifluroethane)	C0873-70	2	2	3	3	2	2	X	1	1	X	1	3	4	4	2	1	3	4
Freon, 12 and ASTM Oil #2 (50/50 Mixture)	V1164-75	2	2	4	1	1	1	X	3	4	X	X	4	4	4	4	2	2	4
Freon, 12 and Suniso 4G (50/50 Mixture)	V1164-75	2	2	4	1	1	1	X	3	4	X	X	4	4	4	4	2	2	4
Freon, 123 (Dichlorotrifluoroethane)	C0873-70	X	X	X	X	4	4	X	X	X	X	X	X	X	X	X	X	X	X
Freon, 124 (Chlorotetrafluoroethane)	C0873-70	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Freon, 125 (Pentafluoroethane)	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Freon, 13 (Chlorotrifluoromethane)	C0873-70	1	1	1	1	1	1	X	1	1	X	X	1	X	1	1	1	4	4
Freon, 134a (Tetrafluoroethane)	C0873-70	1	1	1	4	4	3	X	1	X	X	X	X	X	X	X	X	4	4
Freon, 13B1 (Bromotrifluoromethane)	N0674-70	1	1	1	1	2	2	X	1	1	X	X	1	X	X	1	1	2	4
Freon, 14 (Tetrafluoromethane)	C0873-70	1	1	1	1	1	1	X	1	1	X	1	1	X	X	1	1	X	4
Freon, 141b (Dichlorofluoroethane)	Factory	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Freon, 142b (Chlorotrifluorothane)	V1164-75	2	2	4	2	4	3	4	1	X	X	X	X	X	X	X	X	X	X
Freon, 152a (Difluoroethane)	Factory	X	X	X	X	4	3	X	1	X	X	X	X	X	X	X	X	X	X
Freon, 21	Factory	4	4	4	4	1	1	X	3	4	X	X	4	4	4	4	4	X	4
Freon, 218	N0674-70	1	X	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Freon, 22 (Chlorodifluoromethane)	C0873-70	4	4	3	4	4	4	X	1	1	2	4	3	X	X	1	1	4	4
Freon, 22 and ASTM Oil #2 (50/50 Mixture)	C0873-70	4	4	4	2	1	1	X	2	4	2	X	4	X	X	4	X	2	4
Freon, 23 (Fluoroform) (Trifluoromethane)	Factory	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Freon, 31	C0873-70	4	4	1	4	2	2	X	1	2	X	X	1	X	X	2	2	X	X
Freon, 32	C0873-70	1	1	1	4	2	2	X	1	1	X	X	1	X	X	1	1	X	X
Freon, 356mcf	C0873-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Freon, 401a	C0873-70	X	4	1	4	X	X	X	1	X	X	X	X	X	X	X	X	X	X
Freon, 402a	C0873-70	X	3	1	4	X	X	X	1	X	X	X	X	X	X	X	X	X	X
Freon, 404a	C0873-70	X	1	1	4	X	X	X	4	X	X	X	X	X	X	X	X	X	X
Freon, 407c	C0873-70	X	2	X	4	X	X	X	4	X	X	X	X	X	X	X	X	X	X
Freon, 410a	C0873-70	X	2	1	4	X	X	X	1	X	X	X	X	X	X	X	X	X	X
Freon, 410c	C0873-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Freon, 502	C0873-70	2	2	1	2	2	2	X	1	1	X	X	1	X	X	1	X	X	X
Freon, 507	C0873-70	X	1	1	4	X	X	X	1	X	X	X	X	X	X	X	X	X	X
Freon, BF (R112)	V1164-75	2	2	4	1	2	2	X	2	4	X	X	4	X	X	4	2	X	4
Freon, C316	N0674-70	1	X	1	1	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Freon, C318	C0873-70	1	1	1	2	2	2	X	1	1	X	X	1	X	X	1	1	X	X
Freon, K-142b	C0873-70	1	1	1	4	4	4	X	1	1	X	X	1	X	X	2	1	X	X
Freon, K-152a	C0873-70	1	1	1	4	4	4	X	1	1	X	X	1	X	X	1	4	X	X
Freon, MF (R11)	N0674-70	2	2	4	2	2	2	X	4	4	X	3	4	X	X	4	1	X	4
Freon, PCA (R113)	N0674-70	1	1	4	2	1	1	X	1	2	X	1	4	X	X	4	1	X	4
Freon, TA	N0674-70	1	X	2	3	2	2	X	X	X	X	X	X	X	X	X	X	X	X

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Freon, TC	N0674-70	1	X	2	1	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Freon, TF (R113)	N0674-70	1	1	4	2	2	2	X	1	2	X	1	4	X	X	4	1	X	4
Freon, TMC	V1164-75	2	X	3	1	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Freon, T-P35	N0674-70	1	X	1	1	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Freon, T-WD602	V1164-75	2	X	2	1	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Frick #3 Compressor Oil	C0873-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fuel Oil, #6	V1164-75	2	2	4	1	1	1	X	4	4	1	2	4	4	4	4	4	1	1
Fuel Oil, 1, and 2	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	3	1	4
Fuel Oil, Acidic	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	1
Fumaric Acid	N0674-70	1	1	2	1	1	1	X	2	2	4	X	4	2	1	3	2	1	2
Fuming Sulphuric Acid (20/25% Oleum)	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	X	4
Furaldehyde	E0540-80	4	4	2	4	2	2	4	4	X	X	X	X	X	X	X	X	X	X
Furan (Furfuran)	V1164-75	4	4	3	1	1	1	X	4	4	4	X	4	4	4	4	4	X	X
Furfural (Furfuraldehyde)	E0540-80	4	4	2	4	1	1	X	4	4	4	3	2	4	4	4	3	X	4
Furfuraldehyde	E0540-80	4	4	2	4	1	1	X	4	4	4	3	2	4	4	4	3	X	4
Furfuryl Alcohol	E0540-80	4	4	2	X	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Furoic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Furyl Carbinol	E0540-80	4	4	2	X	X	X	X	4	4	4	4	2	4	4	4	4	4	4
Fyrquel 150 220 300 550	E0540-80	4	4	1	1	1	1	X	4	4	4	4	1	4	4	4	4	2	1
Fyrquel 90, 100, 500	E0540-80	4	4	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X
Fyrquel A60	V3819-75	4	4	2	4	1	1	2	4	X	X	X	X	X	X	X	X	X	X
Fyrquel EHC	E0540-80	3	1	1	1	1	1	1	4	X	4	4	1	X	X	X	X	3	1
— G —																			
Galden	E0740-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Gallic Acid	V1164-75	2	2	2	1	1	1	X	2	2	4	4	2	X	1	1	2	1	X
Gasoline	N1500-75	1	1	4	1	1	1	X	4	4	4	2	4	4	4	4	4	1	4
Gelatin	N0674-70	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
Germane (Germanium Tetrahydride)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Girling Brake Fluid	E0667-70	3	3	1	4	1	1	X	2	1	X	X	2	X	X	X	2	4	X
Glauber's Salt	V1164-75	4	4	2	1	1	1	X	2	4	4	X	2	4	2	2	2	1	X
Gluconic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Glucose	N0674-70	1	1	1	1	1	1	X	1	1	X	4	1	1	1	1	1	1	1
Glue	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Glutamic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Glycerine (Glycerol)	N0674-70	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
Glycerol Dichlorohydrin	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Glycerol Monochlorohydrin	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Glycerol Triacetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Glycerophosphoric Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Glyceryl Phosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Glycidol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Glycol Monoether	V3819-75	X	X	X	X	2	1	X	X	X	X	X	X	X	X	X	X	X	X
Glycolic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Glycols	E0540-80	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
Glycoxylic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Grease Petroleum Base	N0674-70	1	1	4	1	1	1	X	3	4	1	1	4	4	4	4	4	1	4
Green Sulfate Liquor	E0540-80	2	2	1	1	1	1	X	2	2	4	4	1	2	2	2	2	2	X
Gulf Endurance Oils	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Gulf FR Fluids (Emulsion)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Gulf FR G-Fluids	E0540-80	1	1	1	1	1	1	X	1	1	4	2	1	1	1	1	1	1	1
Gulf FR P-Fluids	E0540-80	4	4	2	2	1	1	X	4	4	4	4	2	4	4	4	4	2	1
Gulf Harmony Oils	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Gulf High Temperature Grease	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Gulf Legion Oils	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Gulf Paramount Oils	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Gulf Security Oils	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Gulfcrown Grease	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
— H —																			
Halothane	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Halowax Oil	V1164-75	4	4	4	1	1	1	X	4	4	X	X	4	4	4	4	4	1	4
Hannifin Lube A	N0674-70	1	1	4	1	1	1	X	1	2	1	1	4	4	4	4	1	1	2
Heavy Water	N0674-70	1	1	1	X	1	1	X	2	1	4	4	1	1	1	1	1	1	1
HEF-2 (High Energy Fuel)	V1164-75	2	2	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Helium	B0612-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Heptachlor	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Heptachlorobutene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Heptaldehyde (Heptanal)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Heptane or n-Heptane	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	2	3	4
Heptanoic Acid	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Hexachloroacetone	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Hexachlorobutadiene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Hexachlorobutene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Hexachloroethane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Hexaethyl Tetraphosphate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hexafluoroethane (F-116)	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Hexafluoroxylene	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hexafluoroxylene	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hexaldehyde or n-Hexaldehyde	E0540-80	4	4	1	4	1	1	X	1	4	X	2	2	4	4	4	3	4	2

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COMPOUND COMPATIBILITY RATING
1 - Satisfactory
2 - Fair (usually OK for static seal)
3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Hexamethyldisilizane	V8545-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hexamethylene (Cyclohexane)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Hexamethylene Diammonium Adipate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Hexamethylenediamine	E0540-80	3	3	1	3	2	2	X	1	1	4	4	1	1	1	1	1	1	2
Hexamethylenetetramine	E0540-80	3	3	1	3	2	2	X	1	1	4	4	1	1	1	1	1	1	2
Hexane or n-Hexane	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	2	3	4
Hexene-1 or n-Hexene-1	V1164-75	2	2	4	1	1	1	X	2	4	1	2	4	4	4	4	2	4	4
Hexone (Methyl Isobutyl Ketone)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Hexyl Acetate	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Hexyl Alcohol	N0674-70	1	1	3	1	1	1	X	2	1	4	4	3	1	1	1	2	2	2
Hexylene Glycol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Hexylresorcinol	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
HFC-245fa	C0873-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
High Viscosity Lubricant, H2	N0674-70	1	1	1	1	1	1	X	2	1	4	4	1	2	X	X	X	2	1
High Viscosity Lubricant, U4	N0674-70	1	1	1	1	1	1	X	2	1	4	4	1	2	X	X	X	2	1
HiLo MS #1	E0540-80	4	4	1	4	1	1	X	4	4	4	4	2	4	4	4	4	3	3
Houghto-Safe 1010 phosphate ester	E0540-80	4	4	1	1	1	1	X	4	4	4	X	1	4	4	4	4	2	3
Houghto-Safe 1055 phosphate ester	E0540-80	4	4	1	1	1	1	X	4	4	4	X	1	4	4	4	4	2	3
Houghto-Safe 1120 phosphate ester	V1164-75	4	4	2	1	1	1	X	4	4	4	4	1	4	4	4	4	2	3
Houghto-Safe 271 (Water & Glycol Base)	N0674-70	1	1	1	2	1	1	X	2	1	4	4	2	X	X	X	X	2	2
Houghto-Safe 416 & 500 Series	N0674-70	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Houghto-Safe 5040 (Water/Oil emulsion)	N0674-70	1	1	4	1	1	1	X	2	4	4	4	4	4	4	4	4	2	3
Houghto-Safe 620 Water/Glycol	N0674-70	1	1	1	2	1	1	X	2	1	4	4	2	X	X	X	X	2	2
Hydraulic Oil (Petroleum Base, Industrial)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Hydraulic Oils (Synthetic Base)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Hydrazine	E0540-80	2	2	1	4	1	1	X	2	2	X	4	1	X	X	1	2	4	2
Hydrazine (Anhydrous)	E0540-80	4	4	2	4	1	1	2	2	1	4	4	2	4	4	4	2	4	X
Hydrazine Dihydrochloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Hydrazine Hydrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Hydriodic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Hydroabietyl Alcohol	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrobromic Acid	E0540-80	4	4	1	1	1	1	X	4	4	4	4	1	4	1	1	1	3	4
Hydrobromic Acid 40%	E0540-80	4	4	1	1	1	1	X	2	4	4	4	1	4	1	1	1	3	4
Hydrocarbons, Saturated	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	3	1	4
Hydrochloric Acid (cold) 37%	V1164-75	4	X	3	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Hydrochloric Acid (hot) 37%	V1164-75	4	X	3	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Hydrochloric Acid, 3 Molar to 158°F	V1164-75	2	2	1	1	1	1	X	2	3	3	4	1	X	X	3	1	3	4
Hydrochloric Acid, Concentrated Room Temp.	V0834-70	2	2	2	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrochloric Acid, Concentrated to 158°F	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	X	X	4	X	4	4
Hydrocyanic Acid	E0540-80	2	2	1	1	1	1	X	2	2	4	X	1	2	1	1	1	2	3

Approximate Service Temperature Ranges for Commonly Used Basic Polymer Types*

Nitrile (General Service)	-34°C to 121°C (-30°F to 250°F)*	AFLAS	-9°C to 232°C (15°F to 450°F)*
Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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Hydro-Drive MIH-10 (Petroleum Base)	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	2
Hydro-Drive MIH-50 (Petroleum Base)	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	2
Hydrofluoric Acid (Anhydrous)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrofluoric Acid (conc.) Cold	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrofluoric Acid (conc.) Hot	V3819-75	4	X	4	3	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrofluorosilicic Acid	E0540-80	2	2	1	1	1	1	X	2	2	X	X	1	X	1	1	1	4	4
Hydrogen Bromide (Anhydrous)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrogen Chloride (Anhydrous)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrogen Chloride gas	E0540-80	4	X	1	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Hydrogen Cyanide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrogen Fluoride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrogen Fluoride (Anhydrous)	E0540-80	4	4	1	4	1	1	2	X	4	4	X	1	4	4	4	X	4	X
Hydrogen Gas, Cold	E0540-80	1	1	1	1	1	1	X	1	2	2	1	1	1	1	2	1	3	3
Hydrogen Gas, Hot	E0540-80	1	1	1	1	1	1	X	1	2	2	1	1	1	1	2	1	3	3
Hydrogen Iodide (Anhydrous)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrogen Peroxide	V1164-75	2	2	1	1	1	1	X	1	2	4	X	1	2	2	2	2	1	1
Hydrogen Peroxide 90%	V1164-75	4	4	3	1	1	1	X	4	4	4	X	3	4	4	4	3	2	2
Hydrogen Selenide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Hydrogen Sulfide, Dry, Cold	E0540-80	1	1	1	4	1	1	X	1	1	4	X	1	1	1	1	1	3	3
Hydrogen Sulfide, Dry, Hot	E0540-80	4	4	1	4	1	1	X	2	4	4	X	1	4	4	4	3	3	3
Hydrogen Sulfide, Wet, Cold	E0540-80	4	4	1	4	1	1	X	1	4	4	X	1	4	4	4	2	3	3
Hydrogen Sulfide, Wet, Hot	E0540-80	4	4	1	4	1	1	X	2	4	4	X	1	4	4	4	3	3	3
Hydrolube-Water/Ethylene Glycol	N0674-70	1	1	1	1	1	1	X	2	1	4	4	2	X	X	X	X	2	2
Hydrooxycitronellal	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Hydroquinol	V1164-75	4	4	4	1	2	2	X	4	X	X	X	X	X	X	X	X	X	X
Hydroquinone	V1164-75	3	3	2	2	1	1	X	4	4	4	X	4	4	2	2	4	2	X
Hydroxyacetic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Hydyne	E0540-80	2	2	1	4	1	1	X	2	2	4	X	2	2	2	2	X	4	4
Hyjet	E1267-80	4	4	1	4	1	1	2	4	X	X	X	X	X	X	X	X	X	X
Hyjet IV and IVA	E1267-80	4	4	1	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Hyjet S4	E1267-80	4	X	1	4	1	1	2	4	X	X	X	X	X	X	X	X	X	X
Hyjet W	E1267-80	4	4	1	4	1	1	2	4	X	X	X	X	X	X	X	X	X	X
Hypochlorous Acid	V0834-70	4	4	2	1	1	1	X	4	4	4	X	2	4	2	2	1	X	X
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Indole	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Industron FF44	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Industron FF48	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Industron FF53	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Industron FF80	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4

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Parker Hannifin Corporation • O-Ring Division
2360 Palumbo Drive, Lexington, KY 40509
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www.parkerorings.com

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2 - Fair (usually OK for static seal)
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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Insulin	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Iodic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Iodine	V1164-75	2	2	2	1	1	1	X	4	2	X	X	2	X	4	X	2	1	X
Iodine Pentafluoride	Factory	4	4	4	4	2	2	X	4	4	4	4	4	4	4	4	4	4	4
Iodoform	V1164-75	X	X	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Isoamyl Acetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Isoamyl Butyrate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Isoamyl Valerate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Isoboreol	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Isobutane	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Isobutyl Acetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Isobutyl Alcohol	E0540-80	2	2	1	1	1	1	X	1	2	4	4	1	2	1	1	1	2	1
Isobutyl Chloride	V1164-75	4	4	4	1	1	1	4	4	X	X	X	X	X	X	X	X	X	X
Isobutyl Ether	V3819-75	2	2	4	4	2	1	4	3	X	X	X	X	X	X	X	X	X	X
Isobutyl Methyl Ketone	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Isobutyl n-Butyrate	E0540-80	4	4	1	1	1	1	X	4	4	4	X	1	4	4	4	4	1	X
Isobutyl Phosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Isobutylene	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Isobutyraldehyde	E0540-80	3	2	2	4	2	2	4	3	X	X	X	X	X	X	X	X	X	X
Isobutyric Acid	N0674-70	1	1	2	4	1	1	3	4	X	X	X	X	X	X	X	X	X	2
Isocrotyl Chloride	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Isodecanol	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Isododecane	N0674-70	1	1	4	1	1	1	X	2	4	4	X	4	4	4	4	2	1	4
Isoeugenol	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Isooctane	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	1	1	4
Isopar K	N0674-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Isopentane	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Isophorone (Ketone)	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Isopropanol	E0540-80	2	2	1	1	1	1	X	2	2	4	4	1	2	1	1	1	2	1
Isopropyl Acetate	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	2	4
Isopropyl Alcohol	E0540-80	2	2	1	1	1	1	X	2	2	4	4	1	2	1	1	1	2	1
Isopropyl Chloride	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Isopropyl Ether	N0674-70	2	2	4	4	1	1	X	3	4	3	2	4	4	4	4	3	3	4
Isopropylacetone	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Isopropylamine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
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Jet Fuel A	V1164-75	2	2	4	1	1	1	2	4	4	4	3	4	4	4	4	4	2	X
JP-10	V1164-75	3	3	4	1	1	1	2	4	4	4	3	4	X	X	4	X	1	4
JP-3 (MIL-J-5624)	N0674-70	1	1	4	1	1	1	2	4	X	X	X	X	X	X	X	X	X	X
JP-4 (MIL-T-5624) (Jet A1)	N0602-70	1	1	4	1	1	1	2	4	4	2	2	4	4	4	4	4	2	4
JP-5 (MIL-T-5624)	N0602-70	1	1	4	1	1	1	2	4	4	2	2	4	4	4	4	4	2	4

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JP-6 (MIL-J-25656)	N0602-70	1	1	4	1	1	1	2	4	4	2	2	4	4	4	4	4	2	4
JP-8 (MIL-T-83133) (Jet A)	N0602-70	1	1	4	1	1	1	2	3	4	1	1	4	X	X	4	X	2	4
JP-9 (MIL-F-81912)	V1164-75	3	3	4	1	1	1	2	4	4	4	3	4	X	X	4	X	2	4
JP-9 -11	V1164-75	4	4	4	1	1	1	2	4	4	4	4	4	X	X	4	X	2	4
JPX (MIL-F-25604)	N0674-70	1	1	4	4	1	1	2	2	X	X	X	X	X	X	X	X	X	X
— K —																			
Karl Fischer Reagent		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Kel F Liquids	E0540-80	1	1	1	2	1	1	X	X	1	X	X	1	X	X	X	1	2	1
Kerosene (Similar to RP-1 and JP-1)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Keystone #87HX-Grease	N0674-70	1	1	4	1	1	1	X	4	4	1	1	4	4	4	4	4	1	4
— L —																			
Lacquer Solvents	V3819-75	4	4	4	4	1	1	X	4	4	4	4	4	4	4	4	4	4	4
Lacquers	V3819-75	4	4	4	4	1	1	X	4	4	4	4	4	4	4	4	4	4	4
Lactams-Amino Acids	E0540-80	4	4	2	4	1	1	X	2	4	X	X	2	4	4	4	2	4	X
Lactic Acid, Cold	N0674-70	1	1	1	1	1	1	X	1	1	4	X	1	1	1	1	1	1	1
Lactic Acid, Hot	V1164-75	4	4	4	1	1	1	X	4	4	4	X	4	4	4	4	3	2	2
Lactones (Cyclic Esters)	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	2
Lard Animal Fat	N0674-70	1	1	2	1	1	1	X	2	4	1	1	2	4	4	4	4	1	2
Lauric Acid	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Lavender Oil	V1164-75	2	2	4	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
LB 135	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Lead (Molten)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Lead Acetate	E0540-80	2	2	1	4	1	1	X	2	4	4	4	1	4	1	1	4	4	4
Lead Arsenate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lead Azide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Lead Bromide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lead Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lead Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lead Chromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lead Dioxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lead Linoleate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lead Naphthenate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Lead Nitrate	N0674-70	1	1	1	X	1	1	X	1	1	X	X	1	1	1	1	1	1	2
Lead Oxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lead Sulfamate	C0873-70	2	2	1	1	1	1	X	1	2	4	X	1	2	2	2	1	1	2
Lehigh X1169	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Lehigh X1170	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Light Grease	N0674-70	1	1	4	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Ligroin (Petroleum Ether or Benzene)	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	3	1	4
Lime Bleach	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Lime Sulfur	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X

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Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Lindol, Hydraulic Fluid (Phosphate ester type)	E0540-80	4	4	1	2	1	1	X	4	4	4	4	1	4	4	4	4	3	3
Linoleic Acid	S0604-70	2	2	4	2	1	1	X	2	4	X	X	4	4	4	4	2	X	2
Linseed Oil	N0674-70	1	1	3	1	1	1	X	3	4	1	2	3	4	4	4	2	1	1
Liquid Oxygen (LOX)	Factory	4	4	4	4	3	2	X	4	4	4	4	4	4	4	4	4	4	4
Liquid Petroleum Gas (LPG)	N0674-70	1	1	4	1	1	1	X	2	4	3	1	4	4	4	4	4	1	3
Liquimoly	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Lithium Bromide (Brine)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Citrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Hydroxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Hypochlorite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Nitrite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Perchlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithium Salicylate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lithopone	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Lubricating Oils (Crude & Refined)	V1164-75	2	2	4	1	1	1	1	3	X	X	X	X	X	X	X	X	X	X
Lubricating Oils (Synthetic base)	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Lubricating Oils, Di-ester	V1164-75	2	2	4	1	1	1	X	3	4	2	X	4	4	4	4	X	2	4
Lubricating Oils, petroleum base	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Lubricating Oils, SAE 10, 20, 30, 40, 50	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Lye Solutions	E0540-80	2	2	1	2	1	1	X	2	2	4	4	1	2	2	1	1	2	2
—M —																			
Magnesium Chloride	N0674-70	1	1	1	1	1	1	X	1	1	X	1	1	1	1	1	1	1	1
Magnesium Hydroxide	E0540-80	2	2	1	1	1	1	X	2	2	4	4	1	2	2	2	1	X	X
Magnesium Salts	N0674-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Magnesium Sulfite and Sulfate	N0674-70	1	1	1	1	1	1	X	1	2	4	X	1	2	2	2	1	1	1
Magnesium Trisilicate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Malathion	V1164-75	2	2	4	1	1	1	X	X	4	X	X	4	4	4	4	X	2	4
Maleic Acid	V1164-75	4	4	4	1	1	1	X	4	4	4	X	4	4	4	4	4	X	X
Maleic Anhydride	E0540-80	4	4	2	4	1	1	X	4	4	4	X	2	4	4	4	4	X	X
Maleic Hydrazide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Malic Acid	V1164-75	1	1	2	1	1	1	X	2	2	4	X	4	2	1	3	2	1	2
Mandelic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganese Acetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganese Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganese Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganese Dioxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Manganese Gluconate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganese Hypophosphite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganese Linoleate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganese Naphthenate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Manganese Phosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganese Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganous Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganous Phosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Manganous Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mannitol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
MCS 312	V1164-75	4	4	4	1	1	1	X	4	4	4	X	4	4	4	4	X	1	1
MCS 352	E1267-80	4	4	1	4	1	1	X	4	4	4	4	2	4	4	4	4	3	3
MCS 463	E1267-80	4	4	1	4	1	1	X	4	4	4	4	2	4	4	4	4	3	3
MDI (Methylene di-p-phenylene isocyanate)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercaptan	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Mercaptobenzothiazole (MBT)	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Mercuric Acetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercuric Chloride	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	X	X
Mercuric Cyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercuric Iodide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercuric Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercuric Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercuric Sulfite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercurous Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercury	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	X	X
Mercury Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercury Fulminate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercury Salts	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mercury Vapors	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	X	X
Mesityl Oxide (Ketone)	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Meta-Cresol	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Metaldehyde	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Meta-Nitroaniline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Meta-Toluidine	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methacrylic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methallyl Chloride	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methane	N0674-70	1	1	4	1	1	1	X	2	4	1	3	4	4	4	4	2	3	4
Methanol	E0540-80	4	4	1	4	1	1	X	1	1	4	4	1	1	1	1	1	1	1
Methoxychlor	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Methoxyethanol (DGMMA)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Methyl Abietate	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methyl Acetate	E0540-80	4	4	2	4	2	1	X	2	4	4	4	2	4	4	4	4	4	4
Methyl Acetoacetate	E0540-80	4	4	2	4	1	1	X	4	X	4	4	2	X	X	X	4	4	2
Methyl Acetophenone*	V1164-75	X	X	X	1	2	1	X	4	4	4	3	4	4	4	4	4	2	X
Methyl Acrylate	E0540-80	4	4	2	4	1	1	X	2	4	4	4	2	4	4	4	4	4	4
Methyl Alcohol	E0540-80	4	4	1	4	1	1	X	1	1	4	4	1	1	1	1	1	1	1
Methyl Amylketone	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Methyl Anthranilate	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methyl Benzoate	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	1	4
Methyl Bromide	V1164-75	2	2	4	1	1	1	X	4	4	3	X	4	4	4	4	4	1	X
Methyl Butyl Ketone	E0540-80	4	4	1	4	2	1	X	4	4	4	4	1	4	4	4	4	4	4
Methyl Butyrate Cellosolve	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methyl Butyrate Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methyl Carbonate	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Methyl Cellosolve	E0540-80	3	3	2	4	1	1	X	3	4	4	4	2	4	4	4	2	4	4
Methyl Cellulose	N0674-70	2	2	2	4	1	1	X	2	2	4	2	2	2	2	2	2	4	2
Methyl Chloride	V1164-75	4	4	3	1	1	1	X	4	4	4	4	3	4	4	4	4	2	4
Methyl Chloroacetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Methyl Chloroform	V1164-75	4	4	4	1	1	1	4	4	X	X	X	X	X	X	X	X	X	X
Methyl Chloroformate	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Methyl Chlorosilanes	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Methyl Cyanide (Acetonitrile)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methyl Cyclohexanone	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Methyl Dichloride	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methyldiethanolamine (MDEA)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Methyl Ether	N0674-70	1	1	4	1	2	1	X	3	4	4	X	4	1	1	4	4	1	1
Methyl Ethyl Ketone (MEK)	E0540-80	4	4	1	4	2	1	X	4	4	4	4	1	4	4	4	4	4	4
Methyl Ethyl Ketone Peroxide	S0604-70	4	4	4	4	1	1	X	4	4	4	4	4	4	4	4	4	4	2
Methyl Ethyl Oleate	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methyl Formate	C0873-70	4	4	2	X	1	1	X	2	4	X	X	2	4	4	4	2	X	X
Methyl Hexyl Ketone (2-Octanone)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methyl Iodide	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Methyl Isobutyl Ketone (MIBK)	Factory	4	4	3	4	1	1	X	4	4	4	4	3	4	4	4	4	4	4
Methyl Isocyanate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methyl Isopropyl Ketone	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Methyl Isovalerate	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methyl Lactate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methyl Mercaptan	E0540-80	X	X	1	X	1	1	X	X	X	X	X	1	X	X	X	X	X	X
Methyl Methacrylate	V3819-75	4	X	4	4	1	1	X	4	4	4	X	4	4	4	4	4	4	4
Methyl Oleate	V1164-75	4	4	2	1	1	1	X	4	4	X	X	2	4	X	4	4	2	X

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Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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2 - Fair (usually OK for static seal)
3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Methyl Pentadiene	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methyl Phenylacetate	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methylphenyl Carbinol		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Methyl Salicylate	E0540-80	4	4	2	X	1	1	X	4	3	X	X	2	X	X	3	4	X	X
Methyl Tertiary Butyl Ether (MTBE)	V3819-75	3	3	3	3	2	1	2	3	X	X	X	X	X	X	X	X	X	X
Methyl Valerate	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methyl-2-Pyrrolidone or n-Methyl-2-Pyrrolidone	E0540-80	X	X	2	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Methylacrylic Acid	E0540-80	4	4	2	3	1	1	X	2	4	4	4	2	4	4	4	4	4	4
Methylal	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Methylamine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methylamyl Acetate	E0540-80	3	3	1	3	2	1	X	1	1	4	4	1	1	1	1	1	1	2
Methylcyclopentane	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Methylene Bromide	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methylene Chloride	V1164-75	4	4	4	2	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Methylene Iodide	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methylglycerol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Methylisobutyl Carbinol	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Methylpyrrolidine	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methylpyrrolidone	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Methylsulfuric Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
MIL-A-6091	E1267-80	2	2	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
MIL-C-4339	N0304-75	1	1	4	1	1	1	X	4	4	1	1	4	4	4	4	4	1	3
MIL-C-7024	N0602-70	1	1	4	1	1	1	X	2	4	2	1	4	4	4	4	4	1	4
MIL-C-8188	V1164-75	2	2	4	2	1	1	X	4	4	3	4	4	4	4	4	4	2	4
MIL-E-9500	E1267-80	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
MIL-F-16884	N0304-75	1	1	4	1	1	1	X	3	4	1	3	4	4	4	4	3	1	4
MIL-F-17111	N0304-75	1	1	4	1	1	1	X	2	4	1	3	4	4	4	4	2	2	4
MIL-F-25558 (RJ-1)	N0602-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
MIL-F-25656	N0602-70	1	1	4	1	1	1	X	4	4	2	2	4	4	4	4	4	2	4
MIL-F-5566	E1267-80	2	2	1	1	1	1	X	2	2	4	2	1	2	1	1	1	1	1
MIL-F-81912 (JP-9)	V1164-75	3	3	4	1	1	1	X	4	4	4	3	4	X	X	4	X	2	4
MIL-F-82522 (RJ-4)	N0602-70	2	2	4	1	1	1	X	4	4	1	1	4	1	1	1	X	1	4
MIL-G-10924	N0304-75	1	1	4	1	1	1	X	2	4	2	1	4	4	4	4	2	1	4
MIL-G-15793	N0304-75	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	2	4
MIL-G-21568	E1267-80	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	4
MIL-G-23827		1	X	4	1	1	1	X	3	X	3	3	3	X	X	X	X	1	4
MIL-G-25013	V1164-75	1	1	1	1	1	1	X	2	1	1	3	1	4	4	2	2	1	4
MIL-G-25537	N0304-75	1	1	4	1	1	1	X	2	4	2	1	4	4	4	4	2	1	4
MIL-G-25760	V1164-75	2	2	4	1	1	1	X	2	4	2	2	4	4	4	4	2	2	4
MIL-G-3278	L1120-70	2	2	4	1	1	1	X	4	4	1	2	4	4	4	4	4	2	4

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1 - Satisfactory
2 - Fair (usually OK for static seal)
3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
MIL-G-3545	N0304-75	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
MIL-G-4343	V1164-75	2	2	3	1	1	1	X	2	1	1	1	3	1	1	1	1	1	3
MIL-G-5572	N0602-70	1	1	4	1	1	1	X	4	4	2	2	4	4	4	4	4	1	4
MIL-G-7118	N0304-75	2	2	4	1	1	1	X	2	4	3	3	4	4	4	4	2	1	4
MIL-G-7187	N0304-75	1	1	4	1	1	1	X	4	4	1	1	4	4	4	4	4	1	4
MIL-G-7421	L1120-70	2	2	4	1	1	1	X	2	4	4	2	4	4	4	4	2	2	4
MIL-G-7711	N0304-75	1	1	4	1	1	1	X	4	4	2	1	4	4	4	4	4	1	2
MIL-H-13910	E1267-80	1	1	1	1	1	1	X	1	1	2	4	1	1	1	1	1	2	4
MIL-H-19457	V1164-75	4	4	2	1	1	1	X	4	4	4	4	1	4	4	4	4	4	3
MIL-H-22072	N0304-75	1	X	1	2	1	1	X	2	X	X	4	4	X	X	X	X	2	2
MIL-H-22251	E1267-80	2	2	1	X	X	X	X	2	2	X	X	1	X	X	X	2	X	4
MIL-H-27601	V1164-75	1	1	4	1	1	1	X	2	4	1	3	4	4	4	4	3	2	4
MIL-H-46170 -15°F to +400°F	V1164-75	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
MIL-H-46170 -20°F to +275°F	N0756-75	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
MIL-H-46170 -55°F to +275°F	N0756-75	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
MIL-H-46170 -65°F to +275°F	N0756-75	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
MIL-H-5606 -65°F to +235°F	N0304-75	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
MIL-H-5606 -65°F to +275°F	N0756-75	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
MIL-H-6083	N0304-75	1	1	4	1	1	1	X	1	4	1	1	4	4	4	2	2	1	4
MIL-H-7083	E1267-80	1	1	1	2	1	1	X	2	2	4	4	1	3	3	2	2	1	1
MIL-H-81019	LM158-70	1	X	4	1	1	1	X	2	X	1	2	4	X	X	X	X	1	3
MIL-H-8446 (MLO-8515)	V1164-75	2	2	4	1	1	1	X	1	4	3	4	4	4	4	4	X	1	4
MIL-J-5161	N0602-70	2	2	4	1	1	1	X	4	4	1	2	4	4	4	4	4	1	4
Milk	N0508-75	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
MIL-L-15016	N0304-75	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	2	4
MIL-L-15017	N0304-75	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	2	4
MIL-L-17331	V1164-75	1	1	4	1	1	1	X	X	4	X	X	4	4	4	4	X	X	4
MIL-L-2104	N0304-75	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	3	1	4
MIL-L-21260	N0304-75	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
MIL-L-23699	V1164-75	2	2	4	1	1	1	X	3	4	3	3	4	4	4	4	3	2	4
MIL-L-25681	V1164-75	2	2	1	1	1	1	X	2	2	2	3	1	2	2	2	2	2	4
MIL-L-3150	N0304-75	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
MIL-L-6081	N0304-75	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
MIL-L-6082	N0304-75	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	3
MIL-L-6085	V1164-75	2	2	4	1	1	1	X	4	4	2	3	4	4	4	4	4	2	4
MIL-L-6387	V1164-75	2	2	4	1	1	1	X	4	4	2	1	4	4	4	4	4	2	4
MIL-L-7808	V1164-75	2	2	4	1	1	1	X	4	4	2	4	4	4	4	4	4	2	4
MIL-L-7870	N0304-75	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
MIL-L-9000	N0304-75	1	1	4	1	1	1	X	2	4	1	3	4	4	4	4	2	2	4
MIL-L-9236	V1164-75	2	2	4	1	1	1	X	4	4	2	2	4	4	4	4	4	2	4

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MIL-O-3503	N0304-75	1	1	4	1	1	1	X	2	4	2	1	4	4	4	4	2	1	4
MIL-P-27402	E1267-80	2	2	1	X	X	X	X	2	2	X	X	1	X	X	X	2	X	4
MIL-PRF-17672	N0304-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MIL-PRF-2105	N0304-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MIL-PRF-81322	N0304-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	X	1	3
MIL-PRF-87252	N0674-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MIL-R-25576 (RP-1)	N0602-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
MIL-S-3136, Type I Fuel	N0602-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
MIL-S-3136, Type II Fuel	N0602-70	2	2	4	1	1	1	X	4	4	3	2	4	4	4	4	4	2	4
MIL-S-3136, Type III Fuel	N0602-70	2	2	4	1	1	1	X	4	4	3	2	4	4	4	4	4	2	4
MIL-S-3136, Type IV Oil High Swell	N0674-70	1	1	4	1	1	1	X	4	4	1	1	4	4	4	4	4	1	2
MIL-S-3136, Type IV Oil Low Swell	N0674-70	1	1	4	1	1	1	X	1	4	1	1	4	4	4	4	1	1	3
MIL-S-3136, Type V Oil Medium Swell	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
MIL-S-81087	E1267-80	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
MIL-T-5624, JP-4, JP-5	N0602-70	1	1	4	1	1	1	X	4	4	2	2	4	4	4	4	4	2	4
MIL-T-83133	N0602-70	1	1	4	1	1	1	X	3	4	1	1	4	X	X	4	X	2	4
Mineral Oils	N0674-70	1	1	3	1	1	1	X	2	4	1	1	3	4	4	4	2	1	2
Mixed Acids	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
MLO-7277 Hydr.	V1164-75	3	3	4	1	1	1	X	4	4	3	3	4	4	4	4	4	3	4
MLO-7557	V1164-75	3	3	4	1	1	1	X	4	4	3	3	4	4	4	4	4	3	4
MLO-8200 Hydr.	V1164-75	2	2	4	1	1	1	X	1	4	X	1	4	4	4	4	4	2	4
MLO-8515	V1164-75	2	2	4	1	1	1	X	1	4	3	1	4	4	4	4	3	1	4
Mobil DTE 20 Series	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Mobil 254 Lubricant	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Mobil Delvac 1100, 1110, 1120, 1130	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Mobil HF	N0674-70	1	1	4	1	1	1	X	2	X	X	X	X	X	X	X	X	X	X
Mobil Nivac 20, 30	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Mobil SHC 500 Series	V1164-75	3	3	4	1	1	1	X	2	X	1	2	4	X	X	X	2	2	2
Mobil SHC 600 Series	V1164-75	3	3	4	1	1	1	X	2	4	1	1	4	X	X	X	2	2	3
Mobil Therm 600	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Mobil Velocite c	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Mobilgas WA200 ATF	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Mobilgear 600 Series	V1164-75	3	3	3	1	1	1	X	1	4	1	2	3	3	4	4	2	1	1
Mobilgear SHC ISO Series	V1164-75	3	3	3	1	1	1	X	2	4	1	2	3	3	4	4	2	1	1
Mobilgrease HP	V1164-75	2	2	4	1	1	1	X	2	4	1	1	4	X	4	4	3	1	2
Mobilgrease HTS	V1164-75	2	2	4	1	1	1	X	2	4	1	1	4	X	4	4	3	1	2
Mobilgrease SM	V1164-75	2	2	4	1	1	1	X	2	4	1	1	4	X	4	4	3	1	2
Mobilith AW Series	V1164-75	2	2	4	1	1	1	X	2	4	1	1	4	X	4	4	3	1	2
Mobilith SHC Series	V1164-75	2	2	4	1	1	1	X	3	4	1	1	4	X	4	4	3	1	2
Mobiljet 291	VM835-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Mobiljet II Lubricant	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Mobilmistlube Series	V1164-75	3	3	3	1	1	1	X	1	4	1	2	3	3	4	4	2	1	1
Mobiloil SAE 20	N0674-70	1	1	4	1	1	1	1	2	4	1	1	4	4	4	4	X	1	X
Mobilux	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Molybdenum Disulfide Grease	N0674-70	1	X	4	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Molybdenum Oxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Molybdenum Trioxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Molybdic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Monobromobenzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Monobromotoluene	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Monobutyl Paracresol	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Monochloroacetic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Monochlorobenzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Monochlorobutene	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Monochlorohydrin	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Monoethanolamine (MEA)	E0540-80	4	4	2	4	2	1	X	4	2	4	4	2	2	2	2	4	4	2
Monoethyl Amine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Monoisopropylamine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Monomethyl Aniline	E0540-80	4	X	1	2	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Monomethyl Ether (Dimethyl Ether)	V3819-75	X	X	X	X	2	1	X	X	X	X	X	X	X	X	X	X	X	X
Monomethyl Ether (Methyl Ether)	N0674-70	1	X	4	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Monomethyl Hydrazine	E0540-80	2	2	1	X	1	1	X	2	2	X	X	1	X	X	X	2	X	4
Monomethylamine (MMA)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Monomethylaniline	V1164-75	4	4	2	2	1	1	X	4	4	4	4	2	4	4	4	4	X	X
Mononitrotoluene	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Mononitrotoluene & Dinitrotoluene (40/60 Mixture)	E0540-80	4	4	1	3	2	2	X	4	4	4	4	4	4	4	4	4	3	4
Monovinyl Acetylene	E0540-80	1	1	1	1	1	1	X	2	2	X	X	1	2	2	2	2	X	2
Mopar Brake Fluid	E0667-70	3	3	1	4	1	1	X	2	1	X	X	2	X	X	X	2	4	3
Morpholine	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Motor Oils	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Mustard Gas	E1267-80	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Myristic Acid	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
— N —																			
Naphthalene	V1164-75	4	4	4	1	1	1	X	4	4	X	2	4	4	4	4	4	1	4
Naphthalene Chloride	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Naphthalene Sulfonic Acid	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Naphthalenic Acid	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Naphthalonic Acid	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X

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Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Naphthenic Acid	V1164-75	2	2	4	1	1	1	X	4	4	X	X	4	4	4	4	4	1	4
Naphthylamine	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Naptha	V1164-75	2	2	4	1	1	1	X	4	4	2	2	4	4	4	4	4	2	4
Natural Gas	N0674-70	1	1	4	1	1	1	X	1	2	2	2	4	2	2	2	1	3	4
Neatsfoot Oil	N0674-70	1	1	2	1	1	1	X	4	4	1	1	2	4	4	4	4	1	2
Neon	B0612-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Neville Acid	V1164-75	4	4	2	1	1	1	X	4	4	4	X	2	4	4	4	4	2	4
Nickel Acetate	E0540-80	2	2	1	4	1	1	X	2	4	4	4	1	4	1	1	4	4	4
Nickel Ammonium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nickel Chloride	N0674-70	1	1	1	1	1	1	X	2	1	3	3	1	1	1	1	1	1	1
Nickel Cyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nickel Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nickel Salts	N0674-70	1	1	1	1	1	1	X	2	1	3	3	1	1	1	1	1	1	1
Nickel Sulfate	N0674-70	1	1	1	1	1	1	X	1	2	4	3	1	2	2	2	1	1	1
Nicotinamide (Niacinamide)	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Nicotinamide Hydrochloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nicotine	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Nicotine Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Niter Cake	N0674-70	1	1	1	1	1	1	X	1	1	4	1	1	1	1	1	1	1	1
Nitric Acid, Red Fuming	V3819-75	4	4	4	2	1	1	3	4	X	X	X	X	X	X	X	X	X	X
Nitric Acid, White Fuming	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Nitric Acid (0 - 50%)	V1164-75	4	X	2	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Nitric Acid (50 - 100%)	V3819-75	4	X	4	3	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Nitric Acid 3 Molar to 158°F	E0540-80	4	4	2	3	2	2	X	4	3	4	4	2	X	X	X	2	4	4
Nitric Acid Concentrated Room Temp.	V0834-70	X	X	4	2	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Nitric Acid Concentrated to 158°F	V3819-75	4	4	4	4	3	2	X	4	4	4	4	4	X	X	4	X	4	4
Nitric Oxide	E0540-80	3	X	3	3	X	X	X	3	X	X	4	4	X	X	X	X	X	4
Nitroaniline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrobenzene	E0540-80	4	4	1	2	1	1	X	4	4	4	4	1	4	4	4	4	4	4
Nitrobenzoic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrocellulose	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrochlorobenzene	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrochloroform	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrodiethylaniline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrodiphenyl Ether	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Nitroethane	E0540-80	4	4	2	4	1	1	X	2	2	4	4	2	2	2	2	2	4	4
Nitrofluorobenzene	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrogen	B0612-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Nitrogen Dioxide	E0540-80	3	3	1	4	1	1	X	1	X	4	3	2	X	X	X	X	1	2
Nitrogen Oxides	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Nitrogen Tetroxide (N2O4)	Factory	4	3	4	4	2	2	X	4	4	4	4	3	4	4	4	4	4	4
Nitrogen Trifluoride	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Nitroglycerine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrogylcerol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitroisopropylbenzene	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitromethane	E0540-80	4	4	2	4	1	1	X	3	3	4	4	2	2	2	2	2	4	4
Nitrophenol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitropropane	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Nitrosyl Chloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Nitrosylsulfuric Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Nitrothiophene	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrotoluene	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrous Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Nitrous Oxide	E0540-80	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X	1
Nonane	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Nonylphenoxy Polyethoxy Ethanol		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Noryl GE Phenolic	N0674-70	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Nyvac FR200 Mobil	N0674-70	1	1	1	1	1	1	X	2	4	X	X	4	4	X	4	3	X	X
— O —																			
Octachloro Toluene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Octadecane	N0674-70	1	1	4	1	1	1	X	2	4	2	1	4	4	4	4	2	1	4
Octanal (n-Octanaldehyde)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Octane or n-Octane	V1164-75	1	1	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Octyl Acetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Octyl Alcohol	V1164-75	2	2	3	1	1	1	X	2	2	4	4	2	2	2	2	2	2	2
Octyl Chloride	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Octyl Phthalate	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Olefins	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Oleic Acid	V0834-70	3	3	4	2	1	1	X	4	4	4	2	4	4	4	4	4	X	4
Oleum (Fuming Sulfuric Acid)	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	X	4
Oleum Spirits	V1164-75	2	2	4	1	1	1	X	3	4	X	3	4	4	4	4	2	2	4
Oleyl Alcohol	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Olive Oil	N0674-70	1	1	2	1	1	1	X	2	4	1	1	2	4	4	4	2	1	3
Oronite 8200	V1164-75	2	2	4	1	1	1	X	1	4	X	1	4	4	4	4	4	1	4
Oronite 8515	V1164-75	2	2	4	1	1	1	X	1	4	X	1	4	4	4	4	4	1	4
Ortho-Chloro Ethyl Benzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Ortho-Chloroaniline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ortho-Chlorophenol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Ortho-Cresol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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2 - Fair (usually OK for static seal)
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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Ortho-Dichlorobenzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Ortho-Nitrotoluene	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Orthophos Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
OS 45 Type III (OS45)	V1164-75	2	2	4	1	1	1	X	1	4	X	4	4	4	4	4	2	2	4
OS 45 Type IV (OS45-1)	V1164-75	2	2	4	1	1	1	X	1	4	X	4	4	4	4	4	2	2	4
OS 70	V1164-75	2	2	4	1	1	1	X	1	4	X	4	4	4	4	4	2	2	4
Oxalic Acid	E0540-80	2	2	1	1	1	1	X	2	2	X	X	1	2	2	2	2	1	2
Oxygen, 200°-300°F (Evalute for specific applications)	V1164-75	4	4	4	2	1	1	1	3	4	1	X	1	X	X	4	X	1	1
Oxygen, 300°-400°F (Evalute for specific applications)	S0604-70	4	4	4	2	1	1	X	4	4	4	4	4	4	4	4	4	4	1
Oxygen, Cold (Evalute for specific applications)	C0873-70	2	2	1	1	1	1	X	1	2	2	1	1	2	2	2	1	1	1
Oxygen, Liquid	V3819-75	4	4	4	4	3	2	4	4	X	X	X	X	X	X	X	X	X	X
Ozonated Deionized Water	E0540-80	3	3	1	3	2	2	X	1	1	4	4	1	1	1	1	1	1	2
Ozone	E0540-80	4	2	1	1	1	1	X	2	4	2	1	2	4	4	4	1	1	1
— P —																			
PAG Compressor Oil	N1173-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Paint Thinner, Duco	V1164-75	4	4	4	2	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Palmitic Acid	N0674-70	1	1	2	1	1	1	X	2	2	X	1	2	2	2	2	3	1	4
PAO	V1164 -75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Para-Aminobenzoic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Para-Aminosalicylic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Para-Bromobenzylphenyl Ether	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Para-Chlorophenol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Paracymene	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Para-Dichlorobenzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Paraffins	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Para-Formaldehyde	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Paraldehyde	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Par-al-Ketone	Factory	4	4	4	4	X	X	X	4	4	4	4	4	4	4	4	4	4	4
Para-Nitroaniline	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Para-Nitrobenzoic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Para-Nitrophenol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Parathion	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Para-Toluene Sulfonic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Paraxylene	V1164-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Parker O Lube	N0674-70	1	1	4	1	1	1	X	1	2	1	1	4	4	4	4	1	1	2
Peanut Oil	N0674-70	1	1	3	1	1	1	X	3	4	1	2	3	4	4	4	2	1	1
Pectin (Liquor)	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Pelagonic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Penicillin (Liquid)	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X

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www.parkerorings.com

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Pentachloroethane	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Pentachlorophenol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Pentaerythritol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Pentaerythritol Tetranitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Pentafluoroethane (F-125)	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Pentane or n-Pentane	N0674-70	1	1	4	1	1	1	X	1	3	1	4	4	4	4	4	2	3	4
Pentane, 2 Methyl	N0674-70	1	1	4	1	1	1	X	2	4	1	4	4	4	4	4	2	3	4
Pentane, 2-4 dimethyl	N0674-70	1	1	4	1	1	1	X	2	4	1	4	4	4	4	4	2	3	4
Pentane, 3-Methyl	N0674-70	1	1	4	1	1	1	X	2	4	1	4	4	4	4	4	2	3	4
Pentoxone	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Pentyl Pentanoate	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Peracetic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Perchloric Acid - 2N	E0540-80	4	4	1	1	1	1	X	2	4	4	4	2	4	4	4	2	1	2
Perchloroethylene	V1164-75	2	2	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Perfluoropropane	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Perfluorotriethylamine	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Permanganic Acid	FF200-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Persulfuric Acid (Caro's Acid)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Petrolatum	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Petrolatum Ether	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Petroleum Oil, Above 250°F	V1164-75	4	4	4	2	1	1	X	4	4	4	4	4	4	4	4	4	4	4
Petroleum Oil, Below 250°F	N0674-70	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	2	2
Petroleum Oil, Crude	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Phenol	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Phenol, 70% / 30% H2O	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Phenol, 85% / 15% H2O	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Phenolic Sulfonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Phenolsulfonic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Phenylacetamide	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Phenylacetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Phenylacetic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Phenylbenzene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Phenylene Diamine	FF500-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Phenylethyl Alcohol	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Phenylethyl Ether	FF200-75	4	4	4	4	1	1	X	4	4	4	4	4	4	4	4	4	4	4
Phenylethyl Malonic Ester*	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Phenylglycerine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Phenylhydrazine	V1164-75	4	4	2	1	1	1	X	4	2	4	X	4	2	1	1	4	X	X
Phenylhydrazine Hydrochloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Phenylmercuric Acetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Phorone	Factory	4	4	3	4	1	1	X	4	4	4	4	3	4	4	4	4	4	4
Phosgene	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Phosphine	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Phosphoric Acid 3 Molar to 158°F	E0540-80	1	1	1	1	1	1	X	2	2	3	4	1	X	X	X	1	2	2
Phosphoric Acid Concentrated Room Temp	E0540-80	2	2	1	1	1	1	X	2	1	2	4	1	X	X	X	1	3	3
Phosphoric Acid Concentrated to 158°F	E0540-80	4	4	1	1	1	1	X	3	2	3	4	1	X	X	X	1	3	4
Phosphoric Acid, 20%	E0540-80	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Phosphoric Acid, 45%	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Phosphorus (Molten)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Phosphorus Oxychloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Phosphorus Trichloride	E0540-80	4	4	1	1	1	1	X	4	4	X	X	1	X	X	4	4	1	X
Phosphorus Trichloride Acid	E0540-80	4	4	1	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Phthalic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Phthalic Anhydride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Pickling Solution	V0834-70	4	4	3	2	1	1	X	4	4	4	4	3	4	4	4	2	4	4
Picric Acid (aq)	C0873-70	1	1	1	1	1	1	X	1	2	X	X	1	2	2	1	1	2	X
Picric Acid Molten	V0834-70	2	2	2	1	1	1	X	2	2	X	X	2	2	2	2	2	2	4
Pine Oil	N0674-70	1	1	4	1	1	1	X	4	4	X	X	4	4	4	4	4	1	4
Pine Tar	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Pinene	V1164-75	2	2	4	1	1	1	X	3	4	4	2	4	4	4	4	4	1	4
Piperazine	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Piperidine	V1164-75	4	4	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	4
Piranha (H2SO4:H2O2)(70:30)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Plating Solution (Co,Cu,Au,In,Fe,Pb,Ni,Ag,Sn,Zn)	N0674-70	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X
Plating Solutions Chrome	V1164-75	4	4	2	1	1	1	X	4	4	4	4	2	4	4	4	4	2	2
Plating Solutions Others	E0540-80	1	1	1	1	1	1	X	4	4	X	X	1	X	X	4	1	X	4
Pneumatic Service	N0674-70	1	1	1	1	1	1	X	1	4	4	1	1	4	4	4	1	4	4
Polyetherpolyol		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Polyethylene Glycol	E0540-80	2	2	1	3	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Polyglycerol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Polyglycol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Polyolester (POE)	N1173-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Polyvinyl Acetate Emulsion	E0540-80	X	X	1	X	1	1	X	2	4	X	X	1	X	X	2	2	X	X
Potassium (Molten)	V3819-75	X	X	X	X	4	4	X	X	X	X	X	X	X	X	X	X	X	X
Potassium Acetate	E0540-80	2	2	1	4	1	1	X	2	4	4	4	1	4	1	1	1	4	4
Potassium Acid Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Alum	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Aluminum Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Antimonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Bicarbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Potassium Bichromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Bifluoride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Bisulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Bisulfite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Bitartrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Bromide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Chlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Chloride	N0674-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Potassium Chromates	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Citrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Cupro Cyanide	N0674-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Potassium Cyanate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Cyanide	N0674-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Potassium Dichromate	N0674-70	1	1	1	1	1	1	X	1	1	1	2	1	1	1	1	1	1	1
Potassium Diphosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Ferricyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Fluoride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Glucocyanate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Hydroxide 50%	E0540-80	2	2	1	4	1	1	X	2	2	4	4	1	2	2	2	1	3	3
Potassium Hypochlorite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Iodate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Iodide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Metabisulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Metachromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Metasilicate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Potassium Monochromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Nitrate	N0674-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Potassium Nitrite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Oxalate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Perchlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Perfluoro Acetate	V3819-75	X	X	X	X	2	1	X	X	X	X	X	X	X	X	X	X	X	X
Potassium Permanganate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Peroxide	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Potassium Persulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Phosphate (Acid)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Phosphate (Alkaline)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Phosphate (Di/Tri Basic)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Pyrosulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Salts	N0674-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1

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Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
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Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Potassium Silicate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Potassium Sodium Tartrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Stannate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Stearate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Sulfate	N0674-70	1	1	1	1	1	1	X	1	2	4	1	1	1	2	2	2	1	1
Potassium Sulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Sulfite	N0674-70	1	1	1	1	1	1	X	1	2	4	1	1	1	2	2	2	1	1
Potassium Tartrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Thiocyanate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Thiosulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Potassium Triphosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Prestone Antifreeze	N0674-70	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
PRL-High Temp. Hydr. Oil	V1164-75	2	2	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	2
Producer Gas	N0674-70	1	1	4	1	1	1	X	2	4	2	1	4	4	4	4	2	2	2
Propane	N0674-70	1	1	4	1	1	1	X	2	4	1	3	4	4	4	4	2	2	4
Propionaldehyde	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Propionic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Propionitrile	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Propyl Acetate	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Propyl Acetone or n-Propyl Acetone	E0540-80	4	4	1	4	1	1	X	4	4	4	4	1	4	4	4	4	4	4
Propyl Alcohol	N0674-70	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
Propyl Nitrate	E0540-80	4	4	2	4	1	1	X	4	4	4	X	2	4	4	4	4	4	4
Propyl Propionate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Propylamine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Propylbenzene	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Propylene	V1164-75	3	3	4	1	1	1	X	4	4	4	4	4	4	4	4	4	3	4
Propylene Chloride	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Propylene Chlorohydrin	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Propylene Dichloride	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Propylene Glycol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Propylene Imine	V1164-75	X	X	X	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Propylene Oxide	E0540-80	4	4	2	4	1	1	X	4	4	4	4	2	4	4	4	4	4	4
Pydraul 90e	E0540-80	4	4	1	1	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Pydraul, 10E	E0540-80	4	4	1	4	1	1	X	4	4	4	4	1	4	4	4	4	4	1
Pydraul, 115E	V1164-75	4	4	1	1	1	1	X	4	4	4	4	1	4	4	4	4	3	4
Pydraul, 230C, 312C, 540C, A200	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	4	4
Pydraul, 29ELT 30E, 50E, 65E	V1164-75	4	4	1	1	1	1	X	4	4	4	4	1	4	4	4	4	1	1
Pyranol Transformer Oil	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	2	1	4
Pyridine	V1164-75	4	4	2	1	2	1	X	4	4	4	3	4	4	4	4	4	2	X
Pyridine Oil	E0540-80	4	4	2	4	1	1	X	4	4	4	X	2	4	4	4	4	4	4

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Pyridine Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Pyridine Sulfonic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Pyrogallol (Pyrogallic Acid)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Pyrogard 42, 43, 55	E0540-80	4	4	1	1	1	1	2	4	X	X	X	X	X	X	X	X	X	X
Pyrogard 53, Mobil Phosphate Ester	E0540-80	4	4	1	1	1	1	X	4	4	4	4	1	4	4	4	4	4	4
Pyrogard D, Mobil Water-in-Oil Emulsion	N0674-70	1	1	4	4	1	1	X	2	4	X	1	4	4	4	4	1	2	3
Pyroligneous Acid	E0540-80	4	4	2	4	1	1	X	2	4	4	4	2	4	4	4	2	4	X
Pyrolube	V1164-75	4	4	2	1	1	1	X	4	4	4	4	2	4	4	4	4	2	2
Pyrosulfuric Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Pyrosulfuryl Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Pyrrole	E0540-80	4	4	4	4	1	1	X	4	2	4	X	4	2	2	2	2	4	2
Pyruvic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
—Q —																			
Quinidine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Quinine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Quinine Bisulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Quinine Hydrochloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Quinine Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Quinine Tartrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Quinizarin	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Quinoline	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Quinone	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Quintolubric	N0674-70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Quintolubric 888	V1164-75	1	1	4	1	1	1	1	2	X	X	1	2	X	X	X	X	X	X
— R —																			
Radiation (Gamma, 1.0 E+07 Rads)	E0740-75	3	3	2	4	3	2	X	X	X	X	4	4	X	X	4	X	4	2
Raffinate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Rapeseed Oil	E0540-80	2	2	1	1	1	1	X	2	4	2	2	1	4	4	4	2	1	4
Red Line 100 Oil	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Red Oil (MIL-H-5606)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Resorcinol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Rhodium	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Riboflavin	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Ricinoleic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
RJ-1 (MIL-F-25558)	N0602-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
RJ-4 (MIL-F-82522)	N0602-70	2	2	4	1	1	1	X	4	4	2	2	4	X	X	4	X	1	4
Rosin	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
RP-1 (MIL-R-25576)	N0602-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4

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Nitrile (General Service)	-34°C to 121°C (-30°F to 250°F)*	AFLAS	-9°C to 232°C (15°F to 450°F)*
Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

NOTE: *These temperature ranges will apply to the majority of media for which the material is potentially recommended. With some media however, the service temperature range may be significantly different. ALWAYS TEST UNDER ACTUAL SERVICE CONDITIONS.

COMPOUND COMPATIBILITY RATING
1 - Satisfactory
2 - Fair (usually OK for static seal)
3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
—S —																			
Saccharin Solution	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sal Ammoniac	E0540-80	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	2
Salicylic Acid	E0540-80	2	2	1	1	1	1	X	X	2	X	X	1	2	1	1	X	1	X
Santo Safe 300	V1164-75	4	4	3	1	1	1	X	4	4	4	X	3	4	4	4	X	1	1
Sea (Salt) Water	N0674-70	1	1	1	1	1	1	X	2	1	4	2	1	1	1	1	1	1	1
Sebacic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Selenic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Selenous Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sewage	N0674-70	1	1	1	1	1	1	X	2	1	4	4	1	1	1	1	1	1	1
SF 1154 GE Silicone Fluid	E0740-75	2	2	1	1	1	1	X	1	1	1	2	1	X	1	1	1	1	4
SF1147 GE Silicone Fluid	V1164-75	2	2	3	1	1	1	X	X	X	X	X	3	X	X	X	X	X	4
SF96 GE SIlicone Fluid	E0740-75	2	2	1	1	1	1	X	1	1	1	2	1	1	1	1	1	1	4
Shell 3XF Mine Fluid (Fire resist hydr.)	N0674-70	1	1	4	1	1	1	X	2	4	4	4	4	4	4	4	2	1	X
Shell Alvania Grease #2	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	2
Shell Carnea 19 and 29	N0674-70	1	1	4	1	1	1	X	4	4	1	2	4	4	4	4	4	1	X
Shell Diala	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Shell Irus 905	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Shell Lo Hydrax 27 and 29	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Shell Macome 72	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Shell Tellus #32 Pet. Base	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Shell Tellus #68	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Shell Tellus 27 (Petroleum Base)	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Shell Tellus 33	N0674-70	1	1	4	1	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Shell UMF (5% Aromatic)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Shellac	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Silane	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Silicate Esters	V1164-75	2	2	4	1	1	1	X	1	4	X	1	4	4	4	4	X	1	4
Silicon Fluoride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Silicon Tetrachloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Silicon Tetrafluoride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Silicone Greases	E0540-80	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	2	3
Silicone Oils	E0540-80	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	3	3
Silver Bromide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Silver Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Silver Cyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Silver Nitrate	E0540-80	2	2	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Silver Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sinclair Opaline CX-EP Lube	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Skelly, Solvent B, C, E	N0674-70	1	1	4	1	1	1	X	4	4	X	X	4	4	4	4	4	1	X
Skydrol 500 B4	E1267-80	4	4	1	4	1	1	X	4	4	4	4	2	4	4	4	4	3	3

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www.parkerorings.com

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Skydrol 7000	E1267-80	4	4	1	2	1	1	1	4	X	X	X	X	X	X	X	X	X	X
Skydrol LD-4	E1267-80	4	4	1	4	1	1	X	4	4	4	4	2	4	4	4	4	3	3
Soap Solutions	E0540-80	1	1	1	1	1	1	X	2	2	4	4	1	1	1	2	1	1	1
Socony Mobile Type A	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	2	4
Socony Vacuum AMV AC781 (Grease)	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	2	4
Socony Vacuum PD959B	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Soda Ash	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Sodium (Molten)	Factory	X	X	X	X	4	4	X	X	X	X	X	X	X	X	X	X	X	X
Sodium Acetate	E0540-80	2	2	1	4	1	1	X	2	4	3	3	1	4	1	1	1	4	4
Sodium Acid Bisulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Acid Fluoride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Acid Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Aluminate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Aluminate Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Anthraquinone Disulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Antimonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Arsenate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Arsenite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Benzoate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Bicarbonate (Baking Soda)	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Sodium Bichromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Bifluoride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Bisulfate or Bisulfite	N0674-70	1	1	1	1	1	1	X	1	2	4	X	1	2	2	1	1	1	1
Sodium Bisulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Bitartrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Borate	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Sodium Bromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Bromide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Carbonate (Soda Ash)	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Sodium Chlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Chloride	N0674-70	1	1	1	1	1	1	X	1	1	X	1	1	1	1	1	1	X	1
Sodium Chlorite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Chloroacetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Chromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Citrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Cyanamide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Cyanate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Cyanide	N0674-70	1	1	1	X	1	1	X	1	1	X	X	1	1	1	1	1	X	1
Sodium Diacetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Diphenyl Sulfonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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Sodium Diphosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Disilicate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Ethylate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Ferricyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Ferrocyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Fluoride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Fluorosilicate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Glutamate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Hydride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Sodium Hydrogen Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Hydrosulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Hydrosulfite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Hydroxide, 3 Molar	E0540-80	2	2	1	2	1	1	X	2	2	4	2	1	1	1	1	1	2	1
Sodium Hypochlorite	E0540-80	2	2	1	1	1	1	X	2	2	4	4	1	2	2	2	1	2	2
Sodium Hypophosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Hypophosphite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Hyposulfite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Iodide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Lactate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Metaphosphate	N0674-70	1	1	1	1	1	1	X	2	1	X	X	1	1	1	1	2	1	X
Sodium Metasilicate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Methylate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Monophosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Nitrate	E0540-80	2	2	1	X	1	1	X	2	2	X	X	1	1	1	2	1	X	4
Sodium Oleate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Orthosilicate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Oxalate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Perborate	E0540-80	2	2	1	1	1	1	X	2	2	X	X	1	2	2	2	2	1	2
Sodium Percarbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Perchlorate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Peroxide	E0540-80	2	2	1	1	1	1	X	2	2	4	4	1	2	2	2	2	1	4
Sodium Persulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Phenolate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Phenoxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Phosphate (Dibasic)	N0674-70	1	1	1	1	1	1	X	2	1	1	1	1	1	1	1	1	X	4
Sodium Phosphate (Mono)	N0674-70	1	1	1	1	1	1	X	2	1	1	1	1	1	1	1	1	X	4
Sodium Phosphate (Tribasic)	N0674-70	1	1	1	1	1	1	X	2	1	1	1	1	1	1	1	1	X	1
Sodium Plumbite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Pyrophosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Resinate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

Approximate Service Temperature Ranges for Commonly Used Basic Polymer Types*

Nitrile (General Service)	-34°C to 121°C (-30°F to 250°F)*	AFLAS	-9°C to 232°C (15°F to 450°F)*
Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Sodium Salicylate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Salts	N0674-70	1	1	1	1	1	1	X	2	1	1	1	1	1	1	1	1	1	1
Sodium Sesquisilicate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Sodium Silicate	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	X	X
Sodium Silicofluoride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Sodium Stannate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Sulfate	N0674-70	1	1	1	1	1	1	X	1	2	4	1	1	2	2	2	1	1	1
Sodium Sulfide and Sulfite	N0674-70	1	1	1	1	1	1	X	1	2	4	1	1	2	2	2	1	1	1
Sodium Sulfocyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Tartrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Tetraborate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Tetraphosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Tetrasulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Thioarsenate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Thiocyanate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Thiosulfate	E0540-80	2	2	1	1	1	1	X	1	2	4	1	1	2	2	2	1	1	1
Sodium Trichloroacetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sodium Triphosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Solvesso 100, 150	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Sorbitol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sour Crude Oil	V1238-95	3	3	4	1	1	1	X	4	4	4	4	4	4	4	4	X	4	4
Sour Natural Gas	V1238-95	3	3	4	1	1	1	X	4	4	4	4	4	4	4	4	X	4	4
Sovasol No. 1, 2, and 3	N0674-70	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
Sovasol No. 73 and 74	V1164-75	2	2	4	1	1	1	X	2	4	2	2	4	4	4	4	2	1	4
Soybean Oil	N0674-70	1	1	3	1	1	1	X	3	4	1	X	3	4	4	4	3	1	1
Spry	N0674-70	1	1	2	1	1	1	X	2	4	1	1	2	4	4	4	4	1	1
SR-10 Fuel	N0674-70	1	1	4	1	1	1	X	4	4	2	2	4	4	4	4	4	1	4
SR-6 Fuel	V1164-75	2	2	4	1	1	1	X	4	4	2	2	4	4	4	4	4	1	4
Standard Oil Mobilube GX90-EP Lube	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Stannic Ammonium Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Stannic Chloride	N0674-70	1	1	1	1	1	1	X	4	1	X	X	1	1	1	1	4	1	2
Stannic Chloride, 50%	N0674-70	1	1	1	1	1	1	X	4	1	X	X	1	1	1	1	4	1	2
Stannic Tetrachloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Stannous Bisulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Stannous Bromide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Stannous Chloride (15%)	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	2
Stannous Fluoride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Stannous Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Stauffer 7700	V1164-75	2	2	4	1	1	1	X	4	4	2	X	4	4	4	4	4	2	4
Steam Below 400°F	E0692-75	4	4	1	4	1	1	X	4	4	4	4	2	4	4	4	4	4	3

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Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
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Steam, 400° - 500°F	E0962-90	4	4	3	4	1	1	X	4	4	4	4	4	4	4	4	4	4	4
Steam, Above 500°F	FF200-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Stearic Acid	N0674-70	2	2	2	X	1	1	X	2	2	X	X	2	2	2	2	2	X	2
Stoddard Solvent	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Strontium Acetate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Strontium Carbonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Strontium Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Strontium Hydroxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Strontium Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Styrene (Monomer)	V1164-75	4	4	4	2	1	1	X	4	4	4	X	4	4	4	4	4	3	4
Succinic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sucrose Solutions	N0674-70	1	1	1	1	1	1	X	2	1	4	4	1	1	1	1	2	1	1
Sulfamic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sulfanilic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sulfanilic Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Sulfanilimide	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Sulfite Liquors	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sulfolane	E0540-80	2	2	1	2	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Sulfonated Oils	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Sulfonic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sulfonyl Choride	E0540-80	3	3	1	3	2	2	X	1	1	4	4	1	1	1	1	1	1	2
Sulfur	E0540-80	4	4	1	1	1	1	X	1	4	4	X	1	4	4	4	X	1	X
Sulfur (Molten)	V1164-75	4	4	3	1	1	1	X	3	4	4	4	3	4	4	4	4	3	3
Sulfur Chloride	V1164-75	4	4	4	1	1	1	X	4	4	4	X	4	4	4	4	4	1	3
Sulfur Dioxide, Dry	E0540-80	4	4	1	4	1	1	X	4	2	4	X	2	2	2	2	4	2	2
Sulfur Dioxide, Liquidified under pressure	E0540-80	4	4	1	4	1	1	X	4	4	4	X	2	4	4	4	4	2	2
Sulfur Dioxide, Wet	E0540-80	4	4	1	4	1	1	X	2	4	4	X	1	4	4	4	3	2	2
Sulfur Hexafluoride	E0540-80	2	2	1	3	2	2	3	1	X	X	X	X	X	X	X	X	X	X
Sulfur Liquors	V0834-70	2	2	2	1	1	1	X	2	2	4	X	2	2	2	2	2	2	4
Sulfur Monochloride	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Sulfur Tetrafluoride	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Sulfur Trioxide Dry	V1164-75	4	4	2	1	1	1	X	4	3	4	X	2	2	2	2	4	2	2
Sulfuric Acid (20% Oleum)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sulfuric Acid, 3 Molar to 158°F	E0540-80	2	2	1	1	1	1	X	2	3	2	4	1	X	X	X	1	1	1
Sulfuric Acid, Concentrated Room Temp	V1164-75	X	X	3	1	1	1	X	X	X	X	3	X	X	X	X	X	X	X
Sulfuric Acid, Concentrated to 158°F	V1164-75	4	X	4	1	1	1	X	4	4	4	4	4	X	X	X	X	4	4
Sulfuric Chlorohydrin (Chlorosulfonic Acid)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Sulfurous Acid	V1164-75	2	2	2	1	1	1	X	2	2	4	3	2	2	2	2	1	X	4
Sunoco #3661	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Sunoco All purpose grease	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4

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Sunoco SAE 10	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Sunsafe (Fire resist. hydr. fluid)	N0674-70	1	1	4	1	1	1	X	2	4	4	4	4	4	4	4	2	1	X
Super Shell Gas	N1500-75	1	1	4	1	1	1	X	2	4	2	2	4	4	4	4	4	2	4
Surfuryl Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Swan Finch EP Lube	N0674-70	1	1	4	1	1	1	X	4	4	1	1	4	4	4	4	4	1	4
Swan Finch Hypoid-90	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
— T —																			
Tallow	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Tannic Acid (10%)	N0674-70	1	1	1	1	1	1	X	1	2	4	X	1	1	1	1	1	1	2
Tar, bituminous	V1164-75	2	2	4	1	1	1	X	3	4	4	X	4	4	2	3	4	1	2
Tartaric Acid	N0674-70	1	1	2	1	1	1	X	2	4	X	1	2	2	1	3	1	1	1
Tellone II	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Terephthalic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Terpineol	V1164-75	2	2	3	1	1	1	X	4	4	X	2	3	4	4	4	4	1	X
Terpinyl Acetate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Tertiary Amyl Methyl Ether (TAME)	V3819-75	X	X	X	X	2	1	X	X	X	X	X	X	X	X	X	X	X	X
Tertiary Butyl Catechol or p-tert-butylcatechol	V1164-75	4	4	2	1	1	1	X	2	2	4	4	2	2	4	4	2	1	X
Tertiary Butyl Mercaptan	V1164-75	4	4	4	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Tetrabromoethane	V1164-75	4	4	4	1	1	1	X	4	4	4	X	4	4	4	4	4	2	4
Tetrabromomethane	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Tetrabutyl Titanate	E0540-80	2	2	1	1	1	1	X	2	2	X	X	2	2	2	2	4	4	4
Tetrachloroethylene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Tetrachoroethane	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	X
Tetraethyl Lead	V1164-75	2	2	4	1	1	1	X	2	4	X	X	4	4	4	4	4	2	X
Tetraethyl Lead "Blend"	V1164-75	2	2	4	1	1	1	X	4	4	X	X	4	4	4	4	4	2	X
Tetraethyl Orthosilicate (TEOS)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Tetrahydrofuran	FF500-75	4	4	2	4	1	1	X	4	4	4	3	2	4	4	4	4	4	4
Tetrahydrothiophen	V1164-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tetralin	V1164-75	4	4	4	1	1	1	X	4	4	X	X	4	4	4	4	4	1	4
Tetramethyl Ammonium Hydroxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	X	2
Tetramethylcyclotetrasiloxane (TMCTS)	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Tetramethyldihydropyridine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Tetraphosphoglucosate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Tetraphosphoric Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Tetrasodium Pyrophosphate	E0540-80	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Texaco 3450 Gear Oil	N0674-70	1	1	4	1	1	1	X	4	4	1	1	4	4	4	4	4	1	4
Texaco Capella A and AA	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4

Approximate Service Temperature Ranges for Commonly Used Basic Polymer Types*

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Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

NOTE: *These temperature ranges will apply to the majority of media for which the material is potentially recommended. With some media however, the service temperature range may be significantly different. ALWAYS TEST UNDER ACTUAL SERVICE CONDITIONS.

COMPOUND COMPATIBILITY RATING
1 - Satisfactory
2 - Fair (usually OK for static seal)
3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Texaco Meropa 220 (No Lead)	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	1	4
Texaco Regal B	N0674-70	1	1	4	1	1	1	X	4	4	1	1	4	4	4	4	4	1	4
Texaco Uni-Temp Grease	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	2
Texamatic "A" 1581 Fluid	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	2	4
Texamatic "A" 3401 Fluid	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	2	4
Texamatic "A" 3525 Fluid	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	2	4
Texamatic "A" 3528 Fluid	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	2	4
Texamatic "A" Transmission Oil	N0674-70	1	1	4	1	1	1	X	2	4	1	2	4	4	4	4	4	2	4
Texas 1500 Oil	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	2
Therminol 44	V1164-75	4	4	4	1	1	1	X	4	X	4	X	4	X	X	X	X	X	4
Therminol 55	V1164-75	2	2	4	1	1	1	X	4	X	2	X	4	X	X	X	X	X	4
Therminol 66	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Therminol FR	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Therminol VP-1, 60, 65	V1164-75	4	4	4	1	1	1	X	4	X	4	X	4	X	X	X	X	X	2
Thio Acid Chloride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Thioamyl Alcohol	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Thiodiacetic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Thioethanol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Thioglycolic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Thiokol TP-90B	E0540-80	4	4	1	1	1	1	X	2	4	X	X	1	X	X	X	2	2	X
Thiokol TP-95	E0540-80	4	4	1	1	1	1	X	2	4	X	X	1	X	X	X	2	2	X
Thionyl Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Thiophene (Thiofuran)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Thiophosphoryl Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Thiourea	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Thorium Nitrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Tidewater Multigear, 140 EP Lube	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Tidewater Oil-Beedol	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	2
Tin Ammonium Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Tin Chloride	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Tin Tetrachloride	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Titanic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Titanium Chloride	V1164-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Titanium Dioxide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Titanium Sulfate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Titanium Tetrachloride	V1164-75	2	2	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Toluene	V1164-75	4	4	4	1	2	1	X	4	4	4	4	4	4	4	4	4	2	4
Toluene Bisodium Sulfite	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Toluene Diisocyanate (TDI)	E0540-80	4	4	2	4	1	1	X	4	4	4	X	2	4	4	4	4	4	4
Toluene Sulfonyl Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X

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Toluenesulfonic Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Toluidine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Toluol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Toluquinone	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Tolylaldehyde	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Toothpaste	E3609-70	1	1	1	1	1	1	1	1	1	2	3	1	1	1	1	1	1	1
Transformer Oil	N0674-70	1	1	4	1	1	1	X	2	4	2	1	4	4	4	4	4	1	2
Transmission Fluid Type A	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Triacetin	E0540-80	2	2	1	4	1	1	X	2	3	4	4	1	2	2	2	2	4	X
Triaryl Phosphate	E0540-80	4	4	1	1	1	1	X	4	4	4	4	1	4	4	4	4	2	3
Tribromomethylbenzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Tributoxyethyl Phosphate	E0540-80	4	4	1	1	1	1	X	4	2	4	4	1	2	4	2	4	2	X
Tributyl Citrate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Tributyl Mercaptan	V1164-75	4	4	4	1	1	1	X	4	4	4	X	4	4	4	4	4	3	4
Tributyl Phosphate	E0540-80	4	4	1	4	1	1	X	4	4	4	4	2	4	2	2	4	4	4
Tributylamine	FF500-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Trichloroacetic Acid	E0540-80	2	2	2	3	1	1	X	4	2	4	4	2	2	2	2	4	4	X
Trichloroacetyl Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Trichlorobenzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Trichloroethane	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Trichloroethanolamine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Trichloroethylene	V1164-75	3	3	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Trichloromethane	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Trichloronitromethane (Chloropicrin)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Trichlorophenylsilane	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Trichloropropane	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Trichlorosilane	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Tricresyl Phosphate	E0540-80	4	4	1	2	1	1	X	3	2	4	4	1	4	4	4	4	2	3
Triethanol Amine	E0540-80	3	3	2	4	1	1	X	2	2	4	4	2	2	2	2	2	4	X
Triethyl Phosphate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Triethylaluminum	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Triethylborane	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Triethylene Glycol	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Triethylenetetramine	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Trifluoroacetic Acid	E0540-80	3	3	1	3	2	2	X	1	1	4	4	1	1	1	1	1	1	2
Trifluoroethane (R-23)	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Trifluoromethane	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	2	4
Trifluorovinylchloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Triisopropylbenzylchloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Trimethylamine (TMA)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2

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	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Trimethylbenzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Trimethylborate (TMB)	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Trimethylpentane	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Trinitrololuene (TNT)	V1164-75	4	4	4	2	1	1	X	2	4	4	X	4	4	4	4	2	2	X
Trioctyl Phosphate	E0540-80	4	4	1	2	1	1	X	4	4	4	4	1	4	4	4	4	2	3
Triphenylphosphite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Tripoly Phosphate	E0540-80	4	4	1	2	1	1	X	3	4	4	4	1	4	4	4	4	1	3
Tripotassium Phosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Trisodium Phosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Tritium	Factory	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tung Oil (China Wood Oil)	N0674-70	1	1	4	1	1	1	X	2	4	X	3	3	4	4	4	3	2	4
Tungsten Hexafluoride	V3819-75	X	X	X	X	2	2	X	X	X	X	X	X	X	X	X	X	X	X
Tungstic Acid	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Turbine Oil	N0674-70	1	1	4	1	1	1	X	4	4	1	1	4	4	4	4	4	1	4
Turbine Oil #15 (MIL-L-7808A)	V1164-75	2	2	4	1	1	1	X	4	4	2	4	4	4	4	4	4	2	4
Turbo Oil #35	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Turpentine	N0674-70	1	1	4	1	1	1	X	4	4	2	4	4	4	4	4	4	2	4
Type I Fuel (MIL-S-3136)(ASTM Ref. Fuel A)	N0602-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Type II Fuel MIL-S-3136	N0602-70	2	2	4	1	1	1	X	4	4	3	2	4	4	4	4	4	2	4
Type III Fuel MIL-S-3136(ASTM Ref. Fuel B)	N0602-70	2	2	4	1	1	1	X	4	4	3	2	4	4	4	4	4	2	4
— U —																			
Ucon Hydrolube J-4	N0674-70	1	1	1	1	1	1	X	2	1	4	4	1	2	X	X	X	2	1
Ucon Lubricant 50-HB-100	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant 50-HB-260	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant 50-HB-5100	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant 50-HB55	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant 50-HB-660	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant LB-1145	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant LB-135	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant LB-285	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant LB-300X	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant LB-625	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Lubricant LB-65	N0674-70	1	1	1	1	1	1	X	1	2	X	X	1	2	2	2	2	1	1
Ucon Oil 50-HB-280x	E0540-80	2	2	1	3	1	1	1	2	X	X	X	X	X	X	X	X	X	X
Ucon Oil Heat Transfer Fluid 500 (Polyalkalene Glycol)	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Ucon Oil LB-385	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1

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4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
Ucon Oil LB-400X	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	1
Undecylenic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Undecylic Acid	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Univis 40 (Hydr. Fluid)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	4
Univolt #35 (Mineral Oil)	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Unsymmetrical Dimethyl Hydrazine (UDMH)	E0540-80	2	2	1	4	1	1	X	2	2	X	X	1	1	1	1	1	4	4
UPDI(Ultrapure Deionized Water)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Uranium Hexachloride	V1164-75	X	X	X	1	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Uranium Hexafluoride	Factory	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Uranium Sulfate	Factory	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Uric Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	3	2
— V —																			
Valeraldehyde	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Valeric Acid	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Vanadium Oxide	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Vanadium Pentoxide	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	2	1	2
Varnish	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	4
Vegetable Oil	N0674-70	1	1	3	1	1	1	X	3	4	1	X	3	4	4	4	X	1	1
Versilube F44, F55	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X
Versilube F-50	E0540-80	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	3
Vinegar	E0540-80	2	2	2	3	1	1	X	2	2	4	4	2	2	2	2	X	3	3
Vinyl Acetate	E0540-80	2	2	1	3	2	1	1	2	X	X	X	X	X	X	X	X	X	X
Vinyl Benzene	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Vinyl Benzoate	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Vinyl Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Vinyl Fluoride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Vinylidene Chloride	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Vinylpyridine	V1164-75	2	2	4	1	1	1	X	4	4	4	3	4	4	4	4	4	2	X
Vitriol (White)	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
VV-H-910	E0540-80	3	3	1	1	1	1	X	2	1	2	4	2	2	2	2	2	2	2
V V-L-825	C0873-70	1	X	4	X	1	1	X	1	X	1	2	4	X	X	X	X	1	3
— W —																			
Wagner 21B Brake Fluid	E0667-70	3	3	1	4	1	1	X	2	1	X	X	2	X	X	2	2	4	3
Water	E0540-80	1	2	1	2	1	1	X	2	1	4	4	1	1	1	1	1	1	1
Wemco C	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
Whiskey and Wines	E3609-70	1	1	1	1	1	1	X	1	1	4	4	1	1	1	1	1	1	1
White Liquor	N0674-70	1	1	1	1	1	1	1	1	X	X	X	X	X	X	X	X	X	X

Approximate Service Temperature Ranges for Commonly Used Basic Polymer Types*

Nitrile (General Service)	-34°C to 121°C (-30°F to 250°F)*	AFLAS	-9°C to 232°C (15°F to 450°F)*
Nitrile (Low Temperature)	-55°C to 107°C (-65°F to 225°F)*	Neoprene	-51°C to 107°C (-60°F to 225°F)*
Hydrogenated Nitrile	-32°C to 149°C (-23°F to 300°F)*	Polyacrylate	-21°C to 177°C (- 5°F to 350°F)*
Ethylene Propylene	-57°C to 121°C (-70°F to 250°F)*	Polyurethane	-40°C to 82°C (-40°F to 180°F)*
Fluorocarbon	-26°C to 205°C (-15°F to 400°F)*	Butyl	-59°C to 120°C (-75°F to 250°F)*
Hifluor	-26°C to 205°C (-15°F to 400°F)*	Fluorosilicone	-73°C to 177°C (-100°F to 350°F)*
Perfluoroelastomer (Parofluor)	-26°C to 320°C (-15°F to 608°F)*	Silicone	-115°C to 232°C (-175°F to 450°F)*

NOTE: *These temperature ranges will apply to the majority of media for which the material is potentially recommended. With some media however, the service temperature range may be significantly different. ALWAYS TEST UNDER ACTUAL SERVICE CONDITIONS.

COMPOUND COMPATIBILITY RATING
1 - Satisfactory
2 - Fair (usually OK for static seal)
3 - Doubtful (sometimes OK for static seal)
4 - Unsatisfactory
x - Insufficient Data

	Recommended	Nitrile NBR	Hydrogenated Nitrile HNBR	Ethylene Propylene EPDM	Fluorocarbon FKM	Hifluor FKM	Perfluoroelastomer FFKM	Aflas (TFE/Propylene) FEPM	Neoprene/Chloroprene CR	Styrene-Butadiene SBR	Polyacrylate ACM	Polyurethane AU, EU	Butyl IIR	Butadiene BR	Isoprene IR	Natural Rubber NR	Hypalon CSM	Fluorosilicone FVMQ	Silicone MQ, VMQ, PVMQ
White Oil	N0674-70	1	1	4	1	1	1	X	2	4	1	1	4	4	4	4	4	1	4
White Pine Oil	V1164-75	2	2	4	1	1	1	X	4	4	X	X	4	4	4	4	4	1	4
Wolmar Salt	N0674-70	1	1	1	1	1	1	X	2	1	2	1	1	1	1	1	1	1	1
Wood Alcohol	N0674-70	1	1	1	4	1	1	X	1	1	4	4	1	1	1	1	1	1	1
Wood Oil	N0674-70	1	1	4	1	1	1	X	2	4	1	3	3	4	4	4	3	2	4
— X —																			
Xenon	N0674-70	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1
Xylene	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	1	4
Xylidenes-Mixed-Aromatic Amines	E0540-80	3	3	1	4	1	1	X	4	4	4	4	4	4	4	4	4	4	4
Xylol	V1164-75	4	4	4	1	1	1	X	4	4	4	4	4	4	4	4	4	1	4
— Z —																			
Zeolites	N0674-70	1	1	1	1	1	1	X	1	1	X	X	1	1	1	1	1	1	X
Zinc Acetate	E0540-80	2	2	1	4	1	1	X	2	4	4	4	1	4	1	1	4	4	4
Zinc Ammonium Chloride	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zinc Bromide Completion Fluid	V1164-75	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Zinc Chloride	N0674-70	1	1	1	1	1	1	X	1	1	4	X	1	1	1	1	1	1	X
Zinc Chromate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zinc Cyanide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zinc Diethyldithiocarbamate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zinc Dihydrogen Phosphate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zinc Fluorosilicate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Zinc Hydrosulfite	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zinc Naphthenate	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Zinc Nitrate	N0674-70	1	1	1	1	1	1	X	X	1	4	X	1	1	1	1	1	1	X
Zinc Oxide	N0674-70	1	1	1	1	1	1	X	X	1	4	X	1	1	1	1	1	1	X
Zinc Phenolsulfonate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zinc Phosphate	N0674-70	1	1	1	1	1	1	X	1	1	4	1	1	1	1	1	1	1	1
Zinc Salts	N0674-70	1	1	1	1	1	1	X	1	1	4	1	1	1	1	1	1	1	1
Zinc Silicofluoride	V3819-75	X	X	X	X	1	1	X	X	X	X	X	X	X	X	X	X	X	X
Zinc Stearate	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zinc Sulfate	N0674-70	1	1	1	1	1	1	X	1	2	4	4	1	2	2	2	1	1	1
Zinc Sulfide	E0540-80	3	3	1	3	1	1	X	1	1	4	4	1	1	1	1	1	1	2
Zirconium Nitrate	N0674-70	1	1	1	1	1	1	X	1	2	4	4	1	2	2	2	1	1	1

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