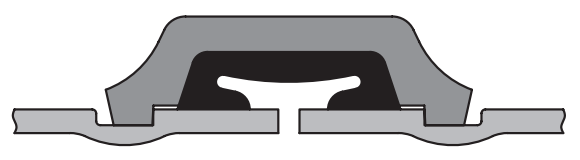
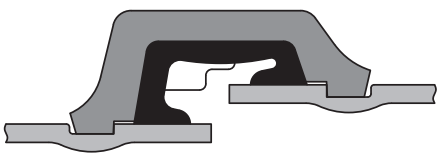
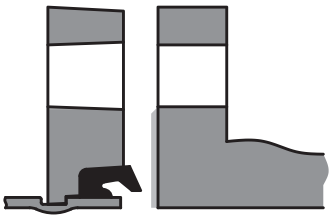
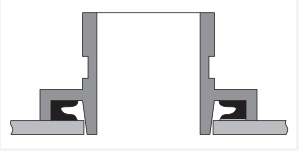
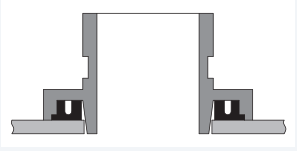
Mercatura gaskets

Profiles and product applications

PROFILE	MERCATURA PRODUCTS	GASKET CROSS-SECTION
CG1	**M-1GS, M-1N** M-1GS rigid coupling and M-1N flexible coupling	
CG4	**M-1F** Quick-install rigid coupling	
RCG1	**M-1NR** Flexible reducing coupling	
FG1	**M-321** Split flange adapter	
Outlet profiles	**M-3G, M-3J** Mechanical outlets	Two profile designs  Opening reaction type  Hole labyrinth type

Black: gasket. Grey: joint components. Catalogue cross-sections, not to scale.

Gasket dimensions match the product size and construction. Profiles of different product families are not interchangeable.

EPDM Grade E

Gasket material for grooved piping systems

MATERIAL	IDENTIFICATION	MATERIAL RANGE
EPDM / E	**Green stripe**	**-34°C to +110°C**

Applications

Water and oil-free air. The temperature range applies to the gasket material; the product data sheet defines the permitted operating conditions of the complete joint.

Material limitations

Do not use with petroleum products or mineral oils. The elastomer chemical resistance applies to the medium, temperature and concentration in service. Prevent water from freezing in the system.

Products with EPDM Grade E gaskets

Grooved couplings	M-1GS, M-1N, M-1F, M-1NR, M-1X
Flange adapter	M-321
Mechanical outlets	M-3G, M-3J, M-3L

Installation and service

01 The gasket must match the coupling model and size. Pipe and housing sealing surfaces must be clean and undamaged.

02 Use a lubricant compatible with EPDM and the product installation instructions. Do not use mineral oils or mineral greases.

03 Isolate, depressurize and drain the pipe section before dismantling. Replace damaged or distorted gaskets and those showing signs of degradation.

Material properties do not establish the working pressure or approval scope of the complete product.

Material selection matrix

The marking colour identifies the gasket elastomer material: grade E, T, O, L or V.
CG1, CG4, RCG1 and FG1 identify the gasket profile.

The temperature ranges below describe the gasket materials. The specific medium, concentration and service conditions may impose a lower limit. A material temperature range is not a pressure or temperature rating for the complete coupling assembly.

E

EPDM | Green stripe
-34°C to +110°C | -30°F to +230°F
Hot water within the specified range, a variety of dilute acids, oil-free air and many chemical services.
Not recommended for petroleum service. Check the chemical-services table for the particular medium and concentration.

T

Nitrile | Orange stripe
-29°C to +82°C | -20°F to +180°F
Petroleum products, hydrocarbons, air containing oil vapours, and vegetable and mineral oils within the specified range.
Not recommended for hot-water service. Do not use for hot dry air above +60°C (+140°F) or water above +66°C (+150°F). These service-specific limits take precedence over the general material range.

O

Fluoroelastomer | Blue stripe
-29°C to +149°C | -20°F to +300°F
Many oxidising acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air containing hydrocarbons, up to +149°C (+300°F).
Selection depends on the specific chemical and its concentration. Use the relevant chemical-services entry; the general description does not establish compatibility with every substance in these groups.

L

Silicone | White
-34°C to +177°C | -30°F to +350°F
Dry heat, air without hydrocarbons up to +177°C (+350°F), and certain chemical services.
The high-temperature air recommendation applies to air without hydrocarbons. Check the chemical-services table for other media.

V

Neoprene | Yellow stripe
-34°C to +82°C | -30°F to +180°F
Hot lubricating oils and certain chemicals. Good resistance to oxidation; does not support combustion.
Keep within the stated material range and the limits of the relevant chemical-services entry.

Other materials are shown for comparison. Inclusion in the table does not imply that every material is available for every Mercatura product.

Application in Mercatura products

The listed Mercatura products use grade E EPDM gaskets with green marking: M-1GS, M-1N, M-1F, M-1NR, M-1X, M-321, M-3G, M-3J and M-3L. Each swatch represents the material colour code. T/O/L/V are shown for comparison; the table does not indicate their availability for these products.

Define the service before selecting a gasket

Select both the gasket material and the correct profile for the coupling or fitting. The material grade describes the elastomer and its resistance to the medium and temperature. The profile describes the gasket geometry and the product with which it is used. These are separate selection criteria.

Gasket life depends on the complete operating conditions. The main variables to establish are:

The exact medium or chemical formulation, including all components of a mixture.

The concentration of the medium and any changes during service.

The operating temperature and the maximum temperature the gasket will encounter.

The duration of exposure and whether service is continuous or intermittent.

The operating pressure and the published pressure and temperature limits of the Mercatura product.

The required gasket profile and size for the selected coupling or fitting.

Temperatures above the recommended limits degrade the elastomer. Temperature, continuity of service and expected gasket life must therefore be considered together.

The listed applications are general recommendations. For unusual, critical or severe service, provide Mercatura with the complete operating conditions. Whenever possible, test the elastomer under conditions representative of the intended service.

Incorrect material or gasket selection can cause leakage or joint failure, resulting in personal injury or property damage.

These recommendations concern the rubber gasket only. Select the housing, fittings, bolts and nuts separately for the actual medium and operating environment.

Lubrication during assembly

Lubrication helps the gasket seat correctly and reduces the risk of pinching or crushing it during assembly.

Lubricate the following contact surfaces, as applicable to the product:

1. The outer surface of the gasket.

2. The gasket sealing lips and/or the pipe ends over which the gasket is installed.

3. The gasket-contacting cavity inside the coupling housing.

Use a dedicated gasket lubricant suitable for the gasket material and application. Alternatively, water-diluted household soap or detergent suitable for direct skin contact may be used, provided it is compatible with the gasket and the intended service.

Do not use machinery lubricants or grease. Lubrication assists installation; it does not make an unsuitable gasket material compatible with the medium.

How to use the chemical-services table

Find the exact chemical or service, including the stated concentration and any temperature qualifier.

Read the rating code and the gasket-grade code together. A favourable rating applies to the grade and conditions shown in that row.

Treat a temperature stated in a chemical entry as the recommended maximum for that entry. Where no temperature is stated, the recommendation applies at ambient temperature; it does not imply an unlimited temperature range.

Apply both the entry-specific limits and the material limits. Also observe the published pressure and temperature limits of the Mercatura product.

A slash between grade codes, for example E/T, identifies alternative materials listed for the stated conditions. It does not describe a blend or permit substitution with an unlisted grade. The reference table also contains codes A and M; these codes are not defined in the five-grade material matrix above.

G | Good
The indicated grade is recommended for the conditions shown.

C | Conditional
Submit the medium composition or material analysis and operating conditions to Mercatura for a specific recommendation.

NR | Not recommended
The service is not recommended with the gasket materials covered by the table.

Mixtures and special conditions

Compatibility with individual substances does not establish compatibility with their mixture. Components that are harmless separately may interact differently with the elastomer when combined.

Do not select a gasket for an unlisted chemical or formulation by analogy with a similar application. Obtain a service-specific recommendation from Mercatura.

Use additional care with flammable or toxic fluids. Assess the complete operating conditions and, whenever possible, test under representative service conditions.

A recommendation for water is not a general recommendation for steam. Steam is listed as not recommended in the chemical-services table.

EPDM: service temperature and ageing

The source description reports that, in a hot-air ageing test at +125°C (+257°F), the physical properties of grade E EPDM remained substantially unchanged. This is a test condition used to assess resistance to ageing.

The stated maximum hot-water service temperature is +110°C (+230°F). The +125°C ageing test does not raise this service limit. The separate potable-water classification temperatures are +30°C (+86°F) for cold water and +82°C (+180°F) for hot water.

Scope of potable-water information

The source catalogue describes grade E EPDM as UL classified to ANSI/NSF 61 for cold potable water to +30°C and hot potable water to +82°C. This statement concerns the described material and use; it does not establish certification of every Mercatura product or configuration.

Reading rules and data scope

529 entries. Source names, ratings, grades, temperatures and duplicate entries are retained. Each reference identifies the source PDF page, table panel and row.

Codes A and M are not defined in the source material matrix. The incomplete E/T/ entry, the dagger symbol and differing Terpineol entries are retained without assigning a new meaning.

The source water-table note applies to water only. It mentions a steam exception for accessible joints with frequent gasket replacement; that exception is not adopted as a recommendation. Steam remains rated NR.

Source: supplied Mercatura catalogue, PDF pages 1-5. The table concerns materials; it does not establish certification or ratings for a complete joint.

Chemical resistance

G: good / C: conditional / NR: not recommended

529 entries. Source names, ratings, grades, temperatures and duplicate entries are retained. Each reference identifies the source PDF page, table panel and row.

Ref.	Medium and conditions	Rating	Grade
3/A/01	ASTM #3 Oil	G	T
3/A/02	Acetaldehyde	G	E
3/A/03	Acetamide	G	T
3/A/04	Acetic Acid up to 10% 100oF/38°C	G	E
3/A/05	Acetic Acid up to 10-50% 100oF/38°C	G	L
3/A/06	Acetic Acid, Glacial 100oF/38°C	G	L
3/A/07	Acetic Anhydride	G	E
3/A/08	Acetone	G	E
3/A/09	Acetonitrile	G	T
3/A/10	Acetophenone	G	E
3/A/11	Acetylene	C	E/T
3/A/12	Acrylic Resin	G	V
3/A/13	Acrylonitrile	NR	-
3/A/14	Adipic Acid	G	T
3/A/15	Alkalis	G	E
3/A/16	Allyl Alcohol to 96%	G	E
3/A/17	Allyl Chloride	NR	-
3/A/18	Alum Sulfuric Acid	C	O
3/A/19	Alums	G	E/T
3/A/20	Aluminum Chloride	G	E/T
3/A/21	Aluminum Fluoride	G	E/T
3/A/22	Aluminum Hydroxide	G	E
3/A/23	Aluminum Nitrate	G	V/E/T

Ref.	Medium and conditions	Rating	Grade
3/A/24	Aluminum Oxychloride	C	T
3/A/25	Aluminum Phosphate	G	E
3/A/26	Aluminum Salts	G	E
3/A/27	Aluminum Sulfate	G	E/T
3/A/28	Ammonia, Anhydrous (Pure Ammonia)	NR	-
3/A/29	Ammonia, Aqueous (40% Max)	G	E
3/B/01	Ammonium Alum	G	V
3/B/02	Ammonium Bifluoride	G	T
3/B/03	Ammonium Carbonate	G	E
3/B/04	Ammonium Chloride	G	T
3/B/05	Ammonium Fluoride	G	E
3/B/06	Ammonium Hydroxide	G	E
3/B/07	Ammonium Metaphosphate	G	E
3/B/08	Ammonium Nitrate	G	T
3/B/09	Ammonium Nitrite	G	E
3/B/10	Ammonium Persulfate, to 10%	G	E
3/B/11	Ammonium Phosphate	G	T
3/B/12	Ammonium Sulfamate	G	T
3/B/13	Ammonium Sulfate	G	E/T
3/B/14	Ammonium Sulfide	G	E
3/B/15	Ammonium Thiocyanate	G	E
3/B/16	Amyl Acetate	G	E
3/B/17	Amyl Acetate	G	E
3/B/18	Amyl Alcohol	G	E
3/B/19	Amyl Borate	G	V
3/B/20	Amyl Chloride	NR	-

Ref.	Medium and conditions	Rating	Grade
3/B/21	Amyl Chloronaphthalene	C	T
3/B/22	Anderol	G	O
3/B/23	Anthraquinone	NR	-
3/B/24	Anthraquinone Sulfonic Acid	NR	-
3/B/25	Aniline	G	E
3/B/26	Aniline Dyes	C	E
3/B/27	Aniline Hydrochloride	C	E
3/B/28	Aniline Oil	G	E
3/B/29	Animal Fats	G	L
3/C/01	Antimony Chloride	G	E
3/C/02	Antimony Trichloride	G	E
3/C/03	Argon Gas	G	E/O
3/C/04	Aroclor(s)	G	O
3/C/05	Arsenic Acid, to 75%	G	T
3/C/06	Arylsulfonic Acid	NR	-
3/C/07	Barium Carbonate	G	E
3/C/08	Barium Chloride	G	E/T
3/C/09	Barium Hydroxide	G	E/T
3/C/10	Barium Nitrate	G	V
3/C/11	Barium Sulfide	G	T
3/C/12	Beer	G	A
3/C/13	Beet Sugar Liquors	G	A
3/C/14	Benzaldehyde	C	E
3/C/15	Benzene	G	O
3/C/16	Benzene Sulfonic (Aromatic Acid)	C	V
3/C/17	Benzine (see Petroleum Ether)	G	O

Ref.	Medium and conditions	Rating	Grade
3/C/18	Benzoic Acid	G	E
3/C/19	Benzol	G	O
3/C/20	Benzyl Alcohol	G	E
3/C/21	Benzyl Benzoate	G	E
3/C/22	Black Sulfate Liquor	G	T
3/C/23	Blast Furnace Gas	C	T
3/C/24	Bleach, 12% Active Cl2	C	E
3/C/25	Borax	G	E
3/C/26	Bordeaux Mixture	G	E
3/C/27	Boric Acid	G	E/T
3/C/28	Bromine	G	O
3/C/29	Bromine Water	G	V
3/D/01	Butadiene	C	V
3/D/02	Butane Gas	C	T
3/D/03	Butanol (see Butyl Alcohol)	G	E/T
3/D/04	Butter	G	L
3/D/05	Butyl Acetate	C	E
3/D/06	Butyl Acetyl Ricinoleate	G	E
3/D/07	Butyl Alcohol	G	E/T
3/D/08	Butyl “Cellosolve Adipate”	G	E/T
3/D/09	Butyl Phenol	C	E
3/D/10	Butyl Stearate	G	T
3/D/11	Butylene	G	T
3/D/12	Butylene Glycol	G	E
3/D/13	Butyne Diol	NR	-
3/D/14	Butyraldehyde	C	V

Ref.	Medium and conditions	Rating	Grade
3/D/15	Cadmium Cyanide	C	V
3/D/16	Calcium Acetate	C	T
3/D/17	Calcium Bisulphate	G	T
3/D/18	Calcium Bisulphide	G	T
3/D/19	Calcium Bisulphite	G	T
3/D/20	Calcium Chloride	G	E/T
3/D/21	Calcium Fluophosphate	C	V
3/D/22	Calcium Hydroxide (Lime)	G	E/T
3/D/23	Calcium Hypochlorite	G	E
3/D/24	Calcium Hypochloride	G	E
3/D/25	Calcium Nitrate	G	V/E/T
3/D/26	Calcium Sulfate	G	E/T
3/D/27	Calcium Sulfide	G	E
3/D/28	Caliche Liquors	G	T
3/D/29	Cane Sugar Liquors	G	L
4/A/01	Carbitol	G	E/T
4/A/02	Carbonic Acid, Phenol	G	O
4/A/03	Carbon Bisulphide	C	O
4/A/04	Carbon Dioxide, Dry	G	E/T
4/A/05	Carbon Dioxide, Wet	G	E/T
4/A/06	Carbon Disulphide	G	O
4/A/07	Carbon Monoxide	G	E
4/A/08	Carbon Tetrachloride	G	O
4/A/09	Castor Oil	G	A
4/A/10	Caustic Potash	G	E
4/A/11	Cellosolve Acetate	G	E

Ref.	Medium and conditions	Rating	Grade
4/A/12	Cellosolve (Alcohol Ether)	G	E
4/A/13	Cellulose Acetate	G	E
4/A/14	Cellulube 220 (Tri-Aryl-Phosphate)	G	E
4/A/15	Cellulube Hydraulic Fluids	G	E
4/A/16	China Wood Oil, Tung Oil	G	T
4/A/17	Chloralhydrate	NR	-
4/A/18	Chloric Acid to 20%	C	E
4/A/19	Chlorine, Dry	C	O
4/A/20	Chlorine, Water 4000 PPM (max.)	C	E
4/A/21	Chlorinated Parafine (Chlor°C osane)	G	T
4/A/22	Chloroacetic Acid	G	E
4/A/23	Chloroacetone	G	E
4/A/24	Chlorobenzene	C	O
4/A/25	Chlorobromomethane	NR	-
4/A/26	Chlor°Form	G	O
4/A/27	Chlorosulphonic Acid	NR	-
4/A/28	Chrome Alum	G	T
4/A/29	Chrome Plating Solutions	G	O
4/A/30	Chromic Acid, to 25%	G	O
4/A/31	Citric Acid	G	E
4/A/32	C°C oanut Oil	G	A
4/A/33	Cod Liver Oil	G	A
4/A/34	Coke Oven Gas	G	T/O
4/A/35	Copper Chloride	G	T
4/A/36	Copper Cyanide	G	T
4/A/37	Copper Fluoride	G	E

Ref.	Medium and conditions	Rating	Grade
4/A/38	Copper Nitrate	G	E/T
4/A/39	Copper Sulfate	G	E/T
4/A/40	Corn Oil	G	A
4/A/41	Ferrus Ammonium Sulfate to 30%	G	V
4/A/42	Fish Oils	G	A
4/A/43	Fluboric Acid	G	E
4/A/44	Fluorine Gas, Wet	NR	-
4/A/45	Fluorosilicic Acid	G	V
4/A/46	Fly Ash	G	E
4/A/47	Foam	G	E
4/A/48	Fog Oil	G	T
4/A/49	Formaldehyde	G	E/T
4/A/50	Formanide	G	T
4/A/51	Formic Acid	G	E
4/A/52	Freon 11, 130°F/54°C	G	T
4/A/53	Freon 12, 130°F/54°C	G	T
4/A/54	Freon 21	NR	-
4/A/55	Freon 22, 130°F/54°C	G	V
4/A/56	Freon 113 130°F/54°C	G	T
4/A/57	Freon 114,130°F/54°C	G	T
4/A/58	Freon 123	NR	-
4/A/59	Freon 134a,176°/80°C	G	E/T
4/A/60	Fructose	G	T
4/B/01	Fuel Oil	G	T
4/B/02	Fumaric Acid	G	E
4/B/03	Furan	NR	-

Ref.	Medium and conditions	Rating	Grade
4/B/04	Furfuryl Alcohol	G	E
4/B/05	Gallic Acid	NR	-
4/B/06	Gasoline, Refined	G	T
4/B/07	Gasoline, Refined, Unleaded	C	O
4/B/08	Gelatin	G	A
4/B/09	Glucose	G	A
4/B/10	Glue	G	T/E
4/B/11	Glycerin	G	E/T
4/B/12	Glycerol	G	E/T
4/B/13	Glycol	G	E/T
4/B/14	Glycolic Acid	C	E
4/B/15	Grease	G	T
4/B/16	Green Sulfate Liquor	G	T
4/B/17	Halon 1301	G	E
4/B/18	Heptane	G	T
4/B/19	Hexaldehyde	G	E
4/B/20	Hexane	G	T
4/B/21	Hexanol Tertiary	G	T
4/B/22	Hexyl Alcohol	G	V/T
4/B/23	Hexylene	G	T
4/B/24	Hydrobromic Acid, to 40%	G	E
4/B/25	Hydr°C hloric Acid, to 36%, 75°F/24°C	G	E
4/B/26	Hydr°C hloric Acid, to 36%, 158°F/70°C	C	O
4/B/27	Hydr°C yanic Acid	G	E
4/B/28	Hydr°Fluoric Acid, to 75%, 75°F/24°C	G	O
4/B/29	Hydr°Fluosilicic Acid	G	T

Ref.	Medium and conditions	Rating	Grade
4/B/30	Hydrogen	C	E/T
4/B/31	Hydrogen Gas, Hot	C	E
4/B/32	Hydrogen Peroxide, to 50%	C	L
4/B/33	Hydrogen Peroxide, to 90%	C	O
4/B/34	Hydrogen Phosphide	NR	-
4/B/35	Hydrogen Sulfide	G	E
4/B/36	Hydroquinone	G	T
4/B/37	Hydroxylamine Sulfate	C	E
4/B/38	Hyp°C hlorous Acid, Dilute	G	E
4/B/39	Iso °C tane, 100°F/38°C	G	T
4/B/40	Isododecane	G	V
4/B/41	Isobutyl Alcohol	G	E
4/B/42	Isopropyl Acetate	G	E
4/B/43	Isopropyl Alcohol	G	E
4/B/44	Isopropyl Ether	G	T
4/B/45	JP-3	G	T
4/B/46	JP-4	G	T
4/B/47	JP-5, 6, 7, 8	G	T
4/B/48	Kerosene	G	T
4/B/49	Ketones	G	E
4/B/50	Lactic Acid	G	A
4/B/51	Lard	G	A
4/B/52	Lard Oil	G	V
4/B/53	Latex (1% Styrene & Butadiene)	G	O
4/B/54	Lauric Acid	G	T
4/B/55	Lauryl Chloride	NR	-

Ref.	Medium and conditions	Rating	Grade
4/B/56	Lavender Oil	G	T
4/B/57	Lead Acetate	G	T
4/B/58	Lead Chloride	C	E
4/B/59	Lead Sulfamate	G	V
4/B/60	LeadSulfate	G	T
4/C/01	Lime and H2O	G	E/T
4/C/02	Linoleic Acid	G	O
4/C/03	Linseed Oil	G	A
4/C/04	Lithium Bromide	G	T
4/C/05	Lithium Chloride	G	T
4/C/06	Lubricating Oil, Refined	G	T
4/C/07	Lubricating Oil, Sour	G	T
4/C/08	Lubricating Oil, to 150°F/66°C	G	T
4/C/09	Lubricating Oil, 150°F/66°C to180°F/82°C	G	V
4/C/10	Magnesium Ammonium Sulfate	C	V
4/C/11	Magnesium Chloride	G	E/T
4/C/12	Magnesium Hydroxide	G	E/T
4/C/13	Magnesium Nitrate	G	V
4/C/14	Magnesium Oxide	C	V
4/C/15	Magnesium Sulfate	G	E/T
4/C/16	Maleic Acid	G	T
4/C/17	Malic Acid	G	T
4/C/18	Mercuric Chloride	G	E/T
4/C/19	Mercuric Cyanide	G	T
4/C/20	Mercurous Nitrate	G	E/T
4/C/21	Mercury	G	T

Ref.	Medium and conditions	Rating	Grade
4/C/22	Methane	C	T
4/C/23	Methyl Acetate	C	V
4/C/24	Methyl Alcohol, Methanol	G	E/T
4/C/25	Methyl Cellosolve (Ether)	G	V
4/C/26	Methyl Chloride	C	O
4/C/27	Methyl Cyclopentane	C	V
4/C/28	Methyl Ethyl Ketone	C	E
4/C/29	Methyl Isobutyl Carbinol	G	E
4/C/30	Methyl Isobutyl Ketone	NR	-
4/C/31	Methylene Chloride	C	O
4/C/32	Methylene Dichloride 100°F/38°C	G	O
4/C/33	MIL-L7808	G	O
4/C/34	MIL-05606	G	O
4/C/35	MIL-08515	G	O
4/C/36	Milk	G	A
4/C/37	Mineral Oils	G	T
4/C/38	Naptha, 160°F/71°C	G	O
4/C/39	Napthalene	NR	-
4/C/40	Napthenic Acid	C	T
4/C/41	Natural Gas	C	T
4/C/42	Nevoil	G	E
4/C/43	Nickel Acetate to 10%, 100°F/38°C	G	V
4/C/44	Nickel Ammonium Sulfate	G	V
4/C/45	Nickel Chloride	G	E/T
4/C/46	Nickel Nitrate	G	V
4/C/47	Nickel Plating Solution 125°F/52°C	G	E

Ref.	Medium and conditions	Rating	Grade
4/C/48	Nickel Sulfate	G	E/T
4/C/49	Nicotine	C	V
4/C/50	Nicotine Acid	C	V
4/C/51	Nitric Acid to 10%, 75°F/24°C	G	E
4/C/52	Nitric Acid, 10-50%, 75°F/24°C	G	O
4/C/53	Nitric Acid, 50-86%, 75°F/24°C	C	O
4/C/54	Nitric Acid, Red Fuming	C	O
4/C/55	Nitr°C ellulose	G	V
4/C/56	Nitroethane	C	E
4/C/57	Nitromethane	G	E
4/C/58	Nitrous Oxide	G	E
4/C/59	°C tyl Alcohol	G	V
4/C/60	Ogisogiric Acid, to 75%, 150°F/66°C	G	O
4/D/01	Oil, Crude Sour	G	T
4/D/02	Oil, Motor	G	T
4/D/03	Oleic Acid	G	T
4/D/04	Olive Oil	G	A
4/D/05	Oronite 8200 Silicate Ester Fluid	G	O
4/D/06	Orthodichlorobenzene	G	O
4/D/07	OS-45 Silicate Ester Fluid	G	O
4/D/08	OS-45-1	G	O
4/D/09	Oxalic Acid	G	E
4/D/10	Oxygen, Cold †	C	E
4/D/11	Ozone (100 ppm)	G	E
4/D/12	Palmitic Acid	G	T
4/D/13	Peanut Oil	G	A

Ref.	Medium and conditions	Rating	Grade
4/D/14	Pentane	G	T
4/D/15	Perchloroethylene	G	O
4/D/16	Perchloric Acid	NR	-
4/D/17	Petroleum Ether (see Benzene)	G	O
4/D/18	Petroleum Oils	G	T
4/D/19	Phenol (Carbolic Acid)	G	O
4/D/20	Phenylhydrazine	C	E
4/D/21	Phenylhydrazine Hydr°C hloride	C	E
4/D/22	Phosphate Ester	G	E
4/D/23	Phosphoric Acid, to 50% and 70 °F	G	E
4/D/24	Phosphoric Acid, to 85% and 200 °F	G	O
4/D/25	Photographic Solutions	G	T
4/D/26	Phthalic Anhydride	G	E
4/D/27	Picric Acid, Molten	G	V
4/D/28	Plating Solutions (gold, brass, cadmium, copper, lead, silver, nickel, tin, zinc)	G	V
4/D/29	Polybutene	G	V
4/D/30	Polyvinyl Acetate, Solid(In Liquid State is 50% solution °F Methanol or 60% solution °F H2O)	G	E
4/D/31	Potassium Alum	G	E/T
4/D/32	Potassium Bicarbonate	G	E/T
4/D/33	Potassium Bichromate	G	T/E
4/D/34	Potassium Borate	G	E
4/D/35	Potassium Bromate	G	E
4/D/36	Potassium Bromide	G	E/T
4/D/37	Potassium Carbonate	G	E/T
4/D/38	Potassium Chlorate	G	E
4/D/39	Potassium Chloride	G	T

Ref.	Medium and conditions	Rating	Grade
4/D/40	Potassium Chromate	G	T
4/D/41	Potassium Cyanide	G	E/T
4/D/42	Potassium Dichromate	G	E
4/D/43	Potassium Ferricyanide	G	E
4/D/44	Potassium Ferr°C yanide	G	E
4/D/45	Potassium Fluoride	G	E
4/D/46	Potassium Hydroxide	G	T
4/D/47	Potassium Iodide	G	V
4/D/48	Potassium Nitrate	G	T
4/D/49	Potassium Perborate	G	E
5/A/01	Potassium Perchlorate	G	T
5/A/02	Potassium Permanganate, Saturated to 10%	G	E
5/A/03	Potassium Permanganate, Saturate 10-25%	G	E
5/A/04	Potassium Persulfate	G	T
5/A/05	Potassium Phosphate	G	V
5/A/06	Potassium Silicate	G	V/E/T
5/A/07	Potassium Sulfate	G	T
5/A/08	Potassium Thiosulfate	G	V
5/A/09	Prestone	G	T
5/A/10	Propane Gas	C	T
5/A/11	Propanol	G	E
5/A/12	Propargyl Alcohol	G	E
5/A/13	Propyl Acetate	C	V
5/A/14	Propyl Alcohol	G	T
5/A/15	Propylene Dichloride	C	L
5/A/16	Propylene Glycol	G	E

Ref.	Medium and conditions	Rating	Grade
5/A/17	Pydraul F - 9 and 150	NR	-
5/A/18	Pyranol 1467	G	T
5/A/19	Pyranol 1476	G	T
5/A/20	Pyroguard “C”	G	T
5/A/21	Pyroguard “D”	G	T
5/A/22	Pyroguard 55	G	E
5/A/23	Pyrrole	G	E
5/A/24	Rapeseed Oil	G	A
5/A/25	Ref. Fuel (70 ISO Octane, 30 Toluene)	G	T
5/A/26	Rosin Oil	G	V/T
5/A/27	Salicylic Acid	G	E
5/A/28	Secondary Butyl Alcohol	G	T
5/A/29	Sewage	G	E/T
5/A/30	Silver Cyanide	C	V
5/A/31	Silver Nitrate	G	E
5/A/32	Silver Plating Solution	C	V
5/A/33	Silver Sulfate	G	E
5/A/34	Skydrol, 200°F/93°C	G	L
5/A/35	Skydrol 500 Phosphate Ester	C	E
5/A/36	Soap Solutions	G	E/T
5/A/37	Soda Ash, Sodium Carbonate	G	E/T
5/A/38	Sodium Acetate	G	E
5/A/39	Sodium Alum	G	T
5/A/40	Sodium Benzoate	G	E/T
5/A/41	Sodium Bicarbonate	G	E/T
5/A/42	Sodium Bisulfate	G	E/T

Ref.	Medium and conditions	Rating	Grade
5/A/43	Sodium Bisulfite (Black Liquor)	G	E/T
5/A/44	Sodium Bromide	G	E/T
5/A/45	Sodium Carbonate	G	E/T
5/A/46	Sodium Chlorate	G	E
5/A/47	Sodium Chloride	G	E/T
5/A/48	Sodium Cyanide	G	E/T
5/A/49	Sodium Dichromate, to 20%	G	E/T
5/A/50	Sodium Ferricyanide	G	E/T
5/A/51	Sodium Ferrocyanide	G	E/T
5/A/52	Sodium Fluoride	G	E/T
5/A/53	Sodium Hydro Sulfide	G	T
5/A/54	Sodium Hydroxide to 50%	G	E
5/A/55	Sodium Hypochlorite, to 20%	G	E
5/A/56	Sodium Metaphosphate	G	T
5/A/57	Sodium Nitrate	G	E
5/A/58	Sodium Nitrite	G	E/T
5/B/01	Sodium Perborate	G	E
5/B/02	Sodium Peroxide	G	E
5/B/03	Sodium Phosphate, Dibasic	G	T
5/B/04	Sodium Phosphate, Monobasic	G	T
5/B/05	Sodium Phosphate, Tribasic	G	T
5/B/06	Sodium Silicate	G	T
5/B/07	Sodium Sulfate	G	E/T
5/B/08	Sodium Sulfide	G	T
5/B/09	Sodium Sulfite Solution, to 20%	G	T
5/B/10	Sodium Thiosulfate, “Hypo”	G	T

Ref.	Medium and conditions	Rating	Grade
5/B/11	Sohovis 47	G	T
5/B/12	Sohovis 78	G	T
5/B/13	Solvasol #1	G	T
5/B/14	Solvasol #2	G	T
5/B/15	Solvasol #3	G	T
5/B/16	Solvasol #73	C	T
5/B/17	Solvasol #74	NR	-
5/B/18	Soybean Oil	G	A
5/B/19	Spindle Oil	G	T
5/B/20	Stannic Chloride	G	T
5/B/21	Stannous Chyoride, to 15%	G	T
5/B/22	Starch	G	T
5/B/23	Steam	NR	-
5/B/24	Stearic Acid	G	T
5/B/25	Stoddard Solvent	G	T
5/B/26	Styrene	G	O
5/B/27	Sucrose Solutions	G	A
5/B/28	Sulfonic Acid	G	E
5/B/29	Sulphite Acid Liquor	G	E
5/B/30	Sulfur	G	V/E
5/B/31	Sulfur Chloride	G	O
5/B/32	Sulfur Dioxide, Dry	C	E/T
5/B/33	Sulfur Dioxide, Liquid	G	E
5/B/34	Sulfur Trioxide, Dry	G	O
5/B/35	Sulfuric Acid, to 25%, 150°F/66°C	G	E
5/B/36	Sulfuric Acid, 25-50%, 200°F/93°C	G	O

Ref.	Medium and conditions	Rating	Grade
5/B/37	Sulfuric Acid, 50-95%, 150°F/66°C	G	O
5/B/38	Sulfuric Acid, Fuming	C	O
5/B/39	Sulfuric Acid, Oleum	C	O
5/B/40	Sulfurous Acid	G	O
5/B/41	Tall Oil	C	T
5/B/42	Tannic Acid, All Conc.	G	V
5/B/43	Tanning Liquors (50 g. alum. solution, 50 g. dichromate solu- tion)	G	T
5/B/44	Tartaric Acid	G	E
5/B/45	Terpineol	G	V
5/B/46	Tertiary Butyl Alcohol	G	V/E/T
5/B/47	Tetrabutyl Titanate	G	E
5/B/48	Tetrachloroethylene	G	O
5/B/49	Tetrahydrofuran	NR	-
5/B/50	Tetralin	NR	-
5/B/51	Thionyl Chloride	C	T
5/B/52	Terpineol	C	T
5/B/53	Thiopene	NR	-
5/B/54	Titanium Tetrachloride	G	O
5/B/55	Toluene, 30%	G	T
5/B/56	Transmission Fluid, Type A	G	O
5/B/57	Triacetin	G	T
5/B/58	Trichloroethane	G	O
5/B/59	Trichloroethylene, to 200°F/93°C	G	O
5/C/01	Tricresyl Phosphate	G	E
5/C/02	Triethanolamine	G	E/T
5/C/03	Trisodium Phosphate	G	E

Ref.	Medium and conditions	Rating	Grade
5/C/04	Tung Oil	G	T
5/C/05	Turbo Oil #15 Diester Lubricant	G	O
5/C/06	Turpentine	C	T
5/C/07	Urea	G	T
5/C/08	Vegetable Oils	G	A
5/C/09	Vinegar	G	A
5/C/10	Vinyl Acetate	G	E
5/C/11	Vi-Pex	G	T
5/C/12	Water, to 150°F/66°C	G	E/T/
5/C/13	Water, to 200°F/93°C	G	E
5/C/14	Water, to 230°F/110°C	G	E
5/D/01	Water, Acid Mine	G	E/T
5/D/02	Water, Bromine	G	V
5/D/03	Water, Chlorine	C	E
5/D/04	Water, Deionized	G	E
5/D/05	Water, Seawater	G	E
5/D/06	Water, Waste	G	E/T
5/D/07	Whiskey	G	A
5/D/08	White Liquor	G	E
5/D/09	Wood Oil	G	T
5/D/10	Xylene	C	O
5/D/11	Zinc Chloride, to 50%	G	E
5/D/12	Zinc Nitrate	G	E
5/D/13	Zinc Sulfate	G	E/T

Water, air and non-recommended services

G: good / C: conditional / NR: not recommended

529 entries. Source names, ratings, grades, temperatures and duplicate entries are retained. Each reference identifies the source PDF page, table panel and row.

Ref.	Medium and conditions	Rating	Grade
5/NR/01	Acrylonitrile	NR	
5/NR/02	Allyl Chloride	NR	
5/NR/03	Amyl Chloride	NR	
5/NR/04	Anthraquinone	NR	
5/NR/05	Anthraquinone Sulfonic Acid	NR	
5/NR/06	Arylsulfonic Acid	NR	
5/NR/07	Butyne Diol	NR	
5/NR/08	Chloralhydrate	NR	
5/NR/09	Chlorobromomethane	NR	
5/NR/10	Chlorosulphonic Acid	NR	
5/NR/11	Ethylene Oxide	NR	
5/NR/12	Fluorine Gas Wet	NR	
5/NR/13	Freon 21	NR	
5/NR/14	Furan	NR	
5/NR/15	Gallic Acid	NR	
5/NR/16	Hydrogen Phosphide	NR	
5/NR/17	Lauryl Chloride	NR	
5/NR/18	Methyl Isobutyl Ketone	NR	
5/NR/19	Napthalene	NR	
5/NR/20	Perchloric Acid	NR	
5/NR/21	Pydraul F -9 and F - 150	NR	
5/NR/22	Solvasol #74	NR	
5/NR/23	Steam	NR	

Ref.	Medium and conditions	Rating	Grade
5/NR/24	Tetra Hydrofuran	NR	
5/NR/25	Tetralin	NR	
5/NR/26	Thiophene	NR	
5/WA/01	Air, Temp. -20°F to 200°F / -29°C to +93°C (no oil vapors)	G	E
5/WA/02	Air, Temp. -30°F to 230°F / -34°C to +110°C (no oil vapors)	G	E
5/WA/03	Air, Temp. 230°F to 350°F / 110°C to 177°C (no oil vapors)	G	L
5/WA/04	Air, Oil Vapor, Temp. 0°F to 150°F / -18°C to 66°C	G	T
5/WA/05	Air, Oil Vapor, Temp. 150°F to 300°F / 66°C to 149°C	G	O
5/WA/06	Water, Temp. to 150°F/66°C	G	E/T
5/WA/07	Water, Temp. to 200°F/93°C	G	E/M
5/WA/08	Water, Temp. to 230°F/110°C *	G	E
5/WA/09	Water, Acid Mine	G	E/T
5/WA/10	Water, Bromine	G	V
5/WA/11	Water, Chlorine	C	E/M
5/WA/12	Water, Deionized	G	E/M
5/WA/13	Water, Seawater	G	E
5/WA/14	Water, Waste	G	E/T

* Water only. Steam is rated NR; see the full note under reading rules and data scope.