

Diaphragm Pumps Corrosion Resistance

YAMADA Asia Pacific — <https://ap.yamadacorp.co.jp/products/dia-corrosion-resistance.html>

Use of this Guide

This Table is intended as a general guide in the selection of proper pump construction materials. This listing includes the most common liquids used in industrial and processing applications. In using this, please take note of the following:

1. The chart data has been compiled from many sources believed to be reliable. NO GUARANTEE IS IMPLIED OR EXPRESSLY STATED HEREIN.
2. Because of the extensive scope of this field the tabulation is not complete nor conclusive. Corrosion rates may vary widely with concentration, temperature and the presence of abrasives. Impurities or other trace elements common in industrial liquids may inhibit or accelerate the reaction of the material being pumped and the effect on pump materials.
3. Chemicals or liquids may independently be compatible with a type of pump construction, the combination of several liquids may change the chemical compatibility with a given metal/plastic and elastomer, It is important that this is remembered when selecting acceptable materials of construction for a pump.
4. In the case of uncertainty regarding corrosion resistance, testing the materials of construction under conditions as close to actual as possible is recommended.

Data limited to % concentration and/or temperature (°C) shown; where not shown, temperature is 20°C.

A = Excellent **B** = Good **C** = Fair to Poor **X** = Not Recommended — = No Data Available

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordei-EPDM	HytraI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE

A

A(Aliphatic)	A	X	A/70°	B	A	A	—	A	A	A	A	—	—	A
AASTM - Ref Motor Fuel														
Acetaldehyde(Ethanal)	X	A	B	X	A	X	—	A	B	A	A	C	A/65°	A
Acetamide(Acetic Acid Amide)	B	A	—	B	A	B	—	A	X	X	A	A	A/60°	A
Acetate Solvents	X	—	—	X	A	X	—	A	—	A	—	X	A	A
Acetic Acid-20%	C	A	B	B	A	C	A	B	—	A	A	C	A	A
Acetic Acid-30%	C	A	B	B	A	X	A	B	X	A	A	C	B	A
Acetic Acid-50%	C	A	—	C	A	C	A	B	X	A	A	C	B	A
Acetic Andydride(Acetic Oxide)	C	B	C	B	A	X	—	B	B 100° 90%	A	A	X	B/20°	A
Acetic-Glacial	C	B	A	X	A	X	A	B	X	A	A	C	A/50°	A

Acetone Cyanohydrin	X	X	—	B	A	X	—	A	B	B	B	—	—	A
Acetone(Dimethylketone)	X	A	C	X	A	X	A	B	A	A	A	X	X	A
Acetonitrile(Methyl Cyanide)	C	A	—	A	A	X	—	A	A	A	A	B/38°	A	A
Acetophenone(Phenyl Methyl Ketone)	X	A	—	X	A	X	—	B	A	A	B	A/20°	A	A
Acetyl Acetone(2,4-Pentanedione)	X	A	—	X	A	X	—	B	X	B	B	—	—	A
Acetyl Chloride	X	C	X	X	A	B	—	X	A	B	A	X	A	A
Acetyl Salicylic Acid(Aspirin)	—	B	—	X	A	—	—	A	X	B	B	—	—	A
Acetylene Tetrabromide(Tetra Bromoethane)	X	—	—	X	A	A	—	X	X	A	—	—	—	A
Acetylene(Ethyne)	A	A	A	C	A	A	—	A	A	A	A	X	A	A
Acrolein(Acryladehyde)	B	—	—	—	A	A	—	A	B	B	B	—	—	A
Acrylonitrile(Vinyl Cyanide)	X	X	—	X	A	X	A	A	A	A	A	B	A	A
Adipic Acid Aqueous(1,4-Butanedicarboxylic Acid)	B	—	—	X	A	A	—	B	B	B	A	A	A	A
Alcohols	—	—	B	—	—	—	—	—	—	—	A	A	A	A
Alkazene(Chlorethyl or Polyisoprpopyl benzenes)	X	—	—	X	A	A		—	—	—	—	—	—	A

Allyl Alcohol(2-Propen-1-ol)	A	A	—	A	A	B	—	B	A	A	A	—	—	A
Allyl Bromide(3-Bromopropene)	X	X	—	X	A	B	—	X	A	—	—	—	—	A
Allyl Chloride(3-Chloropropene)	X	X	—	X	A	B	—	X	C	B	—	A/70°	A	A
Almond Oil(artificial)	X	B	—	X	A	X	—	—	—	—	—	—	—	A
Alum(Aluminum Potassium Sulfate Dodecatydrate)	A	A	—	A	A	X	—	—	—	B	B	A	A	A
Aluminum Acetate (Burow's Solution)	C	A	—	C	A	X	—	B	C	A	A	A/38°	A	A
Aluminum Bromide	A	—	—	A	A	—	—	—	—	—	—	—	A	A
Aluminum Chloride	A	A	B	A	A	A	A	X	C	B	A/25%	A	A	A
Aluminum Fluoride	A	B	—	A	A	A	—	A/50%	C	C	A/20%	A	A	A
Aluminum Hydroxide (Alumina Trihydrate)	B	A	—	A	A	C	—	B/10%	B/30%	B	B/10%	A	A	A
Aluminum Nitrate	A	A	—	A	A	A	—	X	—	A/10%	B/10%	A	A	A
Aluminum Phosphate	A	A	—	A	A	A	—	—	—	—	—	—	—	A
Aluminum Potassium Sulfate (Potash Alum)	A	A	—	A	A	A	—	A/10%	X	A	B	A	A	A
Aluminum sodium Sulfate (Soda Alum) 12-water	A	A	—	A	A	A	—	—	—	—	—	—	—	A

Aluminum Sulfate (Cake Alum)	A	A	B	A	A	A	A	B/30%	X	A/75°50%	100°90%	A	A	A
Alumminum Ammonium Sulfate (Alum)	B	—	—	B	A	A	—	—	—	—	—	A	A	A
Amines	X	—	A/70%	B	—	X	—	A	—	A	—	B	—	A
Ammonia Anhydrous, Liquid	B	A	X	B	A	X	A	A	A	A	A	A	A	A
Ammonia Gas - Cold	A	—	—	A	A	A	A	—	—	—	—	—	—	A
Ammonia Gas - Hot	C	—	—	B	A	X	—	—	—	—	—	—	—	A
Ammonia Liquors	—	—	—	A	A	X	A	A	A	A	—	—	—	A
Ammonium Acetate	—	—	—	A	A	A	A	A	B/50%	A/50%	—	—	—	A
Ammonium Bicarbonate	A	A	—	A	A	A	—	B	B	B/90%	—	—	—	A
Ammonium Bifluoride - 10%	B	—	—	X	A	—	—	C	X	B	B	A	A	A
Ammonium Carbonate	×	A	—	B	A	A	A	B	B	B/100°70%	B/100°70%	A	A	A
Ammonium Casenite	—	—	—	A	—	—	—	—	—	A	—	—	—	A
Ammonium Chloride (Sal Ammoniac)	A	A	A	A	A	A	A	X	X	B	A	A	A	A
Ammonium Cupric Sulfate	A	—	—	—	A	A	—	—	—	—	—	—	—	A
Ammonium Dichromate	A	A	—	A	A	—	—	A	A	A/30%	—	—	—	A

Ammonium Fluoride	B	—	—	B	A	A/20%	—	B/10%	B/20%	B	A/40%	B	A	A
Ammonium Hydroxide (Aqua Ammonia)	B	A	—	B	A	B	A	A/30%	B/30%	A/50%	A/80%	A	A	A
Ammonium Metaphosphate	A	A	—	A	A	A		B/90%	B	B	A	A	A	A
Ammonium Nitrate	A	A	—	A	A	A	A	B	A	A	A	A	A	A
Ammonium Nitrite	A	—	—	A	A	—	A	—	—	—	—	A/20°	A	A
Ammonium Oxalate	A	—	—	A	—	—	—	—	—	A	A	—	—	A
Ammonium Persulfate	C	B	—	A	A	A	—	C	X	A	—	A	A	A
Ammonium Phosphate, Di-Basic	A	—	—	A	A	A	—	B	—	A	A	A	A	A
Ammonium Phosphate, Monobasic	A	A	B	A	A	A	A	X	X	B	A/5%	A	A	A
Ammonium Phosphate, Tri-Basic	A	—	—	A	A	A	—	X	—	B	B	A	A	A
Ammonium Sulfate	A	A	C	A	A	A	A	X	B	A100°80%	B/40%	A	A	A
Ammonium Sulfide	A	—	—	A	A	A	—	B	—	B	A/10%	—	—	A
Ammonium Sulfite	A	—	—	—	A	A	—	C	X	B	A/100%	A	—	A
Ammonium Thiocyanate	A	A	—	A	A	A	—	C	C	A/50%	A/50%	—	—	A
Ammonium Thiosulfate	A	A	—	A	A	A		A/40%	X	A/10%	—	—	—	A

Amyl Acetate(Banana Oil)	X	A	C	X	A	X	—	A	B	A	B	B	A/120°	A
Amyl Alcohol (Pentyl Alcohol)	B	A	—	A	A	A	B	A	A	A	B	A	A	A
Amyl Borate	A	—	—	B	A	A	—	—	—	—	—	—	—	A
Amyl Chloride (Chloropentane)	X	X	—	X	A	A	—	X	A	A	B	X	A	A
Amyl Chloronaphthalene	B	—	—	X	A	A	—	—	—	—	—	—	—	A
Amyl Naphthalene	X	X	—	X	A	A	—	—	—	—	—	—	—	A
Amyl Phenol	X	—	—	—	A	A	—	A	A	A	A	—	—	A
Amyl(1-Pentanol)	B	—	—	B	A	B	B	B	—	A	A	B	A	A
Anilene Dyes	C	C	—	C	A	B	—	B	C	B	—	—	—	A
Anilene Hydrochloride	C	—	—	X	A	B	—	X	X	X	—	X	A	A
Anilene (Anilene Oil) (Amino Benzene)	X	C	X	X	A	B	A	B	A	A	B	A	A	A
Animal Fats & Oil	A	B	B	C	A	A	—	A	X	A	A	—	A	A
Animal Gelatin	A	A	—	A	A	A	—	—	—	A	—	—	—	A
Anisole (Methylphenyl Ether)	—	—	—	X	A	X	—	B	B	B	B	—	—	A
Ansul Ether	C	—	—	X	A	X	—	—	—	—	—	—	—	A

Anthraquinone	—	—	—	—	A	—	—	B	B	B	A	—	—	A
Anti-Freeze - Alcohol Base	A	A	—	A	A	A	—	A	A	A	A	—	—	A
Anti-Freeze - Glycol Base	A	A	—	B	A	A	—	A	A	A	A	—	—	A
Antimony Pentachloride	X	—	—	—	A	—	—	A	A	A	A	—	—	A
Antimony Trichloride	B	A	—	—	A	A	—	B	A	A	B	A	A	A
Aqua Regia (Nitric & Hydrochloric Acid)	X	X	—	X	A	B	—	X	X	X	C	X	A	A
Aroclor	C	X	—	X	A	A	—	A	B	A	A/90%	X	—	A
Aromatic Hydrocarbons	X	—	C	X	A	A	—	A	A	A	—	—	—	A
Aromatic Solvents (Benzene, etc)	C	X	—	X	A	B	—	A	B	A	B	—	—	A
Arsenic Acid	B	A	—	A	A	A	A	A	X	B	B	A	A	A
Arsenic Trichloride(Arsenic Butter)	C	X	—	A	A	X	—	B	B	X	B	—	—	A
Ascorbic Acid	—	—	—	—	A	A	—	A	X	A	—	—	—	A
Askarel(Pyranol)	B	X	—	X	A	C	—	—	—	A	—	—	—	A
Asphalt	B	X	—	C	A	A	—	A	B	A	—	A	A	A
Asphalt Topping	C	—	—	A	A	C	—	—	A	A	—	—	—	A

ASTM - Ref Oil														
Aviation Gasoline	A	X	—	C	A	A	—	A	A	A	A	—	—	A

B

	Elastomers						Metal					Plastic		
Chemical	Buna-N-NBR	Nordei-EPDM	Hyfrel-TPPE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
B(30% Aromatic)	A	X	A/70°	X	A	A	—	A	A	A	A	—	—	A
Barbeque Sauce	A	—	—	A	A	—	—	—	X	A	—	—	—	A
Barium Carbonate	A	A	—	A	A	A	—	X	B	B	B	A	A	A
Barium Chloride Dihydrate	A	A	—	A	A	A	—	B/50%	B	B/100°	B	A	A	A
Barium Cyanide	C	—	X	A	—	A	—	—	—	A	—	X	—	A
Barium Hydroxide(Barium Hydrate)	A	A	B	A	A	A	A	X	B	A 50°50%	B	A	A	A
Barium Nitrate	A	—	—	A	A	—	—	B	A	A	A	A	A	A
Barium Sulfate(Blanc Fixe)	A	A	X	A	A	A	—	B	B	B	—	A	A	A
Barium Sulfide	A	A	—	A	A	A	—	X	—	B	A	A	A	A

Beef Extract	A	—	—	A	A	A	—	—	X	A	—	—	—	A
Beer	C	A	B	A	A	A	—	A	X	A	A	A/25°	A/80°	A
Beet Sugar Liquors(Sucrose)	A	A	—	A	A	A	—	A	B	A	—	A	A	A
Benzaldehyde	X	B	B	X	A	X	—	A	A	A	A	X	A	A
Benzene Sulfonic Acid	C	C	—	A	A	A	—	C	A	A	A/90%	X	B/38°	A
Benzene(Benzol)	X	X	C/20°	X	A	B	—	B	B	A/75°	B	X	B	A
Benzoic Acid(Benzene Carboxylic Acid)	X	B	—	B	A	A	A	B	X	B	A/50%	X	A	A
Benzol (Benzene)	X	X	C/20°	X	A	B	—	B	B	A/75°	B	X	B	A
Benzoyl Chloride	X	X	—	X	A	B	—	X	A	B	B	—	A	A
Benzyl Acetate	X	—	—	—	A	X	—	A	A	A	B	—	—	A
Benzyl Alcohol	X	C	—	C	A	A	—	A	A	A	B	A	A	A
Benzyl Benzoate	X	B	—	X	A	A	—	A	B	B	B	—	—	A
Benzyl Chloride(Chlorotoluene)	X	X	—	X	A	A	—	X	A	B	A	X	A	A
Benzyl Dichloride (Benzol Chloride)	X	—	—	—	A	—	—	X	B	A	B	—	—	A
Benzyl(Phenylcarbinol)	X	—	—	B	A	A	—	B	—	A	A	A	A	A

Biphenyl (Diphenyl)	X	X	—	X	A	A	—	A	A	—	—	—	—	A
Bismuth Subcarbonate (Bismuth Carbonate)	A	A	—	A	A	A	—	—	—	B/10%	—	—	—	A
Black Sulfate Liquor	B	A	B	A	A	A	—	C	B	A	B	—	—	A
Blast Furnace Gas	C	—	B	A	A	A	—	—	—	—	—	—	—	A
Bleach Solutions	X	A	X	X	A	B	—	X	—	B	A/52°	X	—	A
Borax (Sodium Borate)	B	A	A	A	A	A	A	B	B	A	A	A	A	A
Bordeaux Mixture	A	A	B	A	A	B	—	—	—	A	A	—	—	A
Boric Acid (Boracic Acid)	A	A	A	A	A	A	A	A	X	A/30%	A 75° 80%	A	A	A
Brake Fluid (non-petroleum base)	X	A	—	A	A	—	—	A	A	A	A	X	—	A
Brewery Slop	A	—	—	A	A	A	—	—	A	A	—	—	—	A
Brine (Sodium Chloride)	A	A	B	B	A	A	A	—	X	A	A	A	A	A
Bromine Trifluoride	X	X	—	X	—	X	—	A	—	B	—	X	—	A
Bromine Water	X	X	—	B	A	B	—	X	X	X	A	X	A	A
Bromine-Anhydrous	X	C	X	X	A	A	—	B	C	X	A	X	A/65°	A

Bromobenzene	X	X	—	X	A	B	—	X	B	A	B	X	—	A
Bromochloromethane	X	B	—	X	A	C	—	X	B	B	B	—	—	A
Bromotoluene	X	—	—	—	A	B	—	X	A	A	A	—	—	A
Bronzing Liquid	X	B	—	X	A	X	—	—	—	A	A	—	—	A
Bunker Oil(fuel)#5, #6, & C	A	X	—	B	A	A	—	A	A	A	A	—	—	A
Butadiene	X	C	—	C	A	C	X	A	A	A	—	X	A	A
Butane (LPG) (Buty Hydride)	A	X	A	B	A	A	—	A	A	A	A	X	A	A
Buttermilk	A	—	—	A	—	A	—	A	—	A	—	A	A	A
Butter	A	A	B	C	A	A	—	A	X	A	—	—	—	A
Butyl Acetate	X	B	C	X	A	X	A	A	A	A	A	X	A/38°	A
Butyl Acetyl Ricinoleate	C	C	—	X	A	B	—	—	—	—	A	—	—	A
Butyl Acrylate	X	X	—	X	A	X	—	—	—	—	—	—	C	A
Butyl Alcohol (Butanol)	A	B	B	A	A	A	B	A	B	A	A	A	A	A
Butyl Amine (Aminobutane)	B	X	—	X	A	X	—	A	A	A	—	X	B/20°	A
Butyl Benzoate	—	B	—	X	A	A	—	B	B	B	B	—	—	A

Butyl Bromide	X	—	—	—	A	B	—	—	—	—	—	—	A	A
Butyl Butyrate	X	—	—	—	A	X	—	A	A	A	A	—	—	A
Butyl Carbitol	A	A	—	B	A	A	—	—	—	—	—	—	—	A
Butyl Cellosolve	B	—	—	C	A	C	—	—	—	—	—	—	B	A
Butyl Chloride (Chlorobutane)	X	—	—	—	A	A	—	X	B	B	B	X	A	A
Butyl Ether (Dibutyl Ether)	A	—	—	B	A	C	—	A	B	A	A	X	A/38 °	A
Butyl Oleate	—	C	—	X	A	A	—	—	—	—	—	—	—	A
Butyl Stearate	A	C	—	X	A	B	—	B	B	B	B	—	A	A
Butyl(Butanol)	A	—	—	A	A	A	—	B	—	A	A	B	A	A
Butylene(Butene)	B	X	—	X	A	B	X	A	—	A	—	X	A	A
Butyraldehyde	X	C	—	X	A	X	—	A	A	A	A	—	—	A
Butyric Acid	C	C	B	X	A	C	A	A	X	B	A	A	A	A
Butyric Anhydride	C	—	—	—	A	—	—	A	A	A	A	—	—	A
Butyronitrile	X	A	—	X	A	—	—	—	—	—	—	—	—	A

C

	Elastomers						Metal					Plastic		
Chemical	Buna-NBR	Norde-EPDM	Hytre-TPPE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
C(50% Aromatic)	B	X	C	X	A	A	—	A	A	A	A	—	—	A
Calcium Acetate Hydrate	B	A	—	C	A	X	—	C	C	B	B	—	—	A
Calcium Bisulfite	A	X	X	A	A	A	—	X	X	A/90%	A	A	A	A
Calcium Carbonate (Chalk)	A	A	—	A	A	A	—	C	B	B	B	A	A	A
Calcium Chlorate	A	A	—	A	A	A	—	B/30%	B	B/30%	B/70%	A	A	A
Calcium Chloride (Brine)	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Calcium Hydrosulfide (Calcium Sulfhydrate)	A	—	—	—	A	A	—	—	—	—	—	—	—	A
Calcium Hydroxide (Slaked Lime)	A	A	B	A	A	A	—	X	B	B/50%	A/50%	A	A	A
Calcium Hypochlorite 20% (Calcium Oxichloride)	C	B	A/5%	X	A	B	A	X	X	B	B/52%	A	A	A
Calcium Nitrate	A	A	—	A	A	A	A/50%	B 100° 40%	B 100° 30%	B 100° 40%	B/10%	A	A	A

Calcium Oxide (Unslaked Lime)	A	A	B	A	A	—	—	A	A	A	A	—	—	A
Calcium Silicate	A	—	—	—	A	A	—	A	B	A	A	—	—	A
Calcium Sulfate (Gypsum)	A	A	—	A	A	A	—	C	B/10%	A/10%	A	A	A	A
Calcium Sulfide	A	A	—	B	A	A	—	A/20%	B	B	A	A/50°	A	A
Calcium Sulfite	A	—	—	—	A	A	—	B/10%	B	A/10%	—	—	—	A
Calgon	A	—	—	A	—	A		—	X	A	—	A	—	A
Cane Juice	A	—	—	A	—	—	—	B	A	A	—	X	—	A
Cane sugar Liquors	A	A	B	A	A	A	—	A	A	A	—	A	A	A
Capryl Alcohol (Octanol)	A	C	—	B	A	B	—	A	A	A	A	—	—	A
Caprylic Acid (Octanoic Acid)	C	—	—	—	A	—	—	A	—	A	A	—	A	A
Carbamate	C	C	—	C	A	A		—	—	—	—	—	—	A
Carbitol	B	C	—	C	A	A	—	B	A	B	A	C	A/65°	A
Carbolic Acid (see Phenol)	X	C	—	C	A	A	—	B	A	B	A	C	A/65°	A
Carbon Tetrachloride (Tetrachloromethane)	C	X	X	X	A	A	X	X	C	B	A	X	A	A
Carbon Dioxide (Carbonic Acid Gas)	A	B	A	A	A	A	—	A	A	A	A	A	A	A

Carbon Disulfide (Carbon Bisulfide)	X	X	C	X	A	A	—	A	B	A/90%	—	X	A	A
Carbon Monoxide	C	C	A	A	A	C	A	A	A	A	A	A	A	A
Carbonated Beverages	A	—	—	A	A	—	—	C	—	A	A	A	A	A
Carbonic Acid (liquid)	B	—	C	A	A	A	—	A	X	B	A	A	A	A
Casein	A	A	—	A	A	A	—	B	—	B	B	—	—	A
Castor Oil	A	B	B	A	A	A		A	B	A	A	—	—	A
Catsup (Ketchup)	A	—	—	C	A	A	—	B	X	A	A	A	—	A
Cellosolve (Glycol Ethers)	C	C	X	C	A	B	—	A	—	A	A	A/38°	A	A
Cellulose Acetate	B	—	—	B	A	C	—	B	B	A	A	—	—	A
Cellulube Hydraulic Fluids (Phosphate Esters)	X	A	C	X	A	B	—	A	A	A	A	—	—	A
Chlorinated Lime - 35% bleach	C	A	A/6%	X	A	A	—	—	X	A	—	—	—	A
Chlorinated Water	C	—	X	C	A	A	C	C	—	B	A	B	A	A
Chlorine - Dry	C	—	X	C	A	A	—	X	X	—	—	X	A	A
Chlorine Dioxide	X	C	—	X	A	B	—	B	—	X	B	X	A	A
Chlorine Trifluoride	X	X	—	X	A	B	—	A	—	A	—	X	—	A

Chlorine-Anhydrous Liquid	X	—	—	X	A	A	—	X	X	X	A	X	A	A
Chlorine-Wet	C	X	X	X	A	A	—	B	C	A	A	X	A	A
Chloroacetic Acid (monochloroacetic Acid)	X	B	X	C	A	C	—	X	X	X	A	A	A	A
Chloroacetone (Monochloroacetone)	X	A	—	C	A	C	—	X	B	B	B	X	—	A
Chlorobenzene (Monochlorobenzene)	X	X	X	X	A	A	—	X	B	B	B	X	A/65°	A
Chlorobromomethane	X	—	—	X	A	A	—	X	B	B	—	X	—	A
Chlorobutadiene (Chloroprene)	X	X	—	X	A	A	—	X	B	B	B	X	—	A
Chloroform	X	X	X	X	A	A	X	X	A	A	A	X	A	A
Chlorosulfonic Acid	X	X	X	X	A	X	—	B	B	B	A	X	X	A
Chlorothene (Chlorinated Solvents)	X	—	—	X	A	C	—	X	X	A	A	—	—	A
Chlorotrifluoroethylene	X	—	—	—	A	—	—	B	B	B	B	—	—	A
Chlorox	C	—	X	B	A	A	—	—	X	A	B	B	—	A
Chocolate Syrup	A	—	—	A	A	—	—	—	X	A	—	A	—	A
Chromic Acid - To 25%	X	A	X	X	A	A	—	B/10%	B	X	B	A	A/50°	A
Chromic Acid- Over 25%	X	C	X	X	A	A	—	X	B	X	B	A	A/50°	A

Cider (Apple Juice)	A	—	B	A	A	A	—	B	X	A	A	—	—	A
Cinnamon Oil	—	—	—	C	A	—	—	—	X	A	—	—	—	A
Citric Acid	B	A	A	A	A	A	—	B	X	A/30%	A	B	A/125°	A
Citric Oils	C	B	—	X	A	A	—	—	X	A	—	A	—	A
Citrus Pectin Liquor	A	—	—	A	A	A	—	—	—	A	—	—	—	A
Clove Oil (Eugenol)	—	—	—	C	A	—	—	—	X	A	—	—	—	A
Cobalt Chloride	A	C	—	A	A	A	—	X	—	—	—	A	—	A
Coconut Oil(Coconut Butter)	B	A	—	B	A	A	—	B	A	A	—	—	—	A
Cod Liver Oil(Fish Oil)	B	A	—	B	A	A	—	A	X	A	—	—	—	A
Coffee	A	—	—	A	A	—	—	A	—	A	A	A	—	A
Coke Oven Gas	C	—	—	C	A	A	—	—	—	—	—	—	A	A
Com Oil(Maize Oil)	A	C	A	C	A	A	—	B	C	B	—	A	A	A
Concentrated	X	X	X	X	A	C	X	A	X	A	A/40%	X	C/50°	A
Concentrated	X	B	X	B	A	A	—	X	X	A/100°	—	A/50°	A	A
Copper Acetate	B	A	—	C	A	—	—	X	A/90%	B/10%	B/10%	—	A	A

Copper Chloride	A	A	A	A	A	A	—	X	X	X	B/40%	A	A	A
Copper Cyanide	A	A	—	A	A	A	—	X	A	A/10%	A/170%	A	A	A
Copper Fluoroborate	B	—	—	A	—	A	—	X	X	X	B	—	—	A
Copper Nitrate Hexahydrate	A	A	—	A	A	A	—	X	X	A	B	A	A	A
Copper Sulfate (Blue Copperas)	A	A	A	A	A	A	A	X	X	A/10%	A	A	A	A
Copper Sulfide	A	—	—	—	A	A	A	—	—	—	—	—	—	A
Cotton Seed Oil	A	A	A	C	A	A	—	A	C	A	—	A	A	A
Cream	A	—	—	C	A	A	—	—	X	A	—	A	—	A
Creosote, Coal-Tar(Tar Oil)	A	X	X	C	A	A	—	B	B	B	B	X	—	A
Creosote, Wood - Tar	A	X	X	B	A	A	—	—	—	B	—	X	—	A
Cresylic Acid (Cresol)	C	X	—	X	A	A	—	B	C	A	B	X	A/65°	A
Crotonaldehyde	X	—	—	A	A	A	—	A	A	A	A	—	—	A
Cumene (Isopropylbenzene)	X	X	—	X	A	A	—	B	B	B	B	—	—	A
Cutting Oil(sulfur base)	A	—	—	C	A	—	—	A	A	A	A	—	—	A
Cutting Oil(water soluble)	C	—	—	X	A	A	—	A	A	A	A	—	—	A

Cyclohexane	B	X	A	X	A	A	X	B	B	B	B	X	A	A
Cyclohexanol	B	X	—	A	A	A	C	C	B	A	A	B	A/65°	A
Cyclohexanone	X	C	—	X	A	X	B	B	B	B	B	X	A	A
Cyclopentane	B	X	—	A	A	A	—	B	B	B	B	—	—	A
Cymene (Isopropyltoluene)	C	X	—	X	A	A	—	—	—	—	—	—	—	A

D

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Decahdronaphthalene (Decalin)	X	X	—	X	A	A	—	—	—	—	—	—	—	A
Decanal	X	X	—	—	A	X	—	—	—	—	—	—	—	A
Decane	B	C	—	X	A	A	—	—	—	—	—	A/70%	A	A
Decyl Alcohol (Decanol)	A	—	—	X	A	B	—	—	—	—	—	—	—	A
Denatured Alcohol	A	A	—	B	A	B	—	B	B	A	A	A	A	A
Detergent Solutions	A	A	B	A	A	A	—	B	—	A	—	A	—	A

Developing Fluids & Solutions	A	C	X	A	A	A	—	—	X	A	A	—	—	A
Dextrose	B	A	B/60°	B	A	A	—	A	X	A	A	A	A	A
Diacetone Alcohol(Diacetone)	A	B	C	X	A	X	—	A	A	A	A	X	C	A
Diacetone(Tyranton)	X	B	—	X	A	X	—	A	A	A	A	X	A	A
Dibenzyl Ether	X	C	—	X	A	C	—	B	B	B	B	—	C	A
Dibenzyl Sebecate	X	C	A	X	A	B	—	—	—	—	—	—	—	A
Dibutyl Amine	C	X	—	X	A	X	—	—	A	A	A	X	B/20°	A
Dibutyl Phthalate (DBP)	X	A	A	X	A	B	—	A	A	A	A	X	X	A
Dibutyl Sebacate (DBS)	X	C	—	X	A	C	—	—	A	A	—	C	—	A
Dichlohexylamine	X	X	—	X	A	B	—	—	—	—	—	—	—	A
Dichloro Isopropyl Ether	X	X	—	X	A	X	—	—	—	—	—	X	—	A
Dichloroacetic Acid	X	—	—	X	A	X	—	—	—	—	—	—	—	A
Dichlorobutane		X	—	—	—	A	A	—	X	B	B	—	—	A
Dichloroethyl Ether	X	—	—	—	A	—	—	B	—	—	—	—	—	A
Diesel Oil(Fuel ASTM #2)	A	X	B	C	A	A	—	A	A	A	A	B	A	A

Diester Synthetic Oils	B	X	—	X	A	A	—	A	A	A	A	—	—	A
Diethanol Amine	B	—	—	A	A	—	—	—	A	A	A	A	—	A
Diethylene Ether (Dioxane)	X	A	—	X	A	X	—	A	A	A	—	—	—	A
Diethyl Amine	C	C	—	C	A	X	—	B	B	A	A	A	A	A
Diethyl Benzene	X	X	—	X	A	A	—	—	—	—	—	—	—	A
Diethyl Carbonate	X	—	—	X	A	—	—	—	A	—	—	—	—	A
Diethyl Ether (Ether)	B	X	C	C	A	X	—	B	A	A	A	X	A	A
Diethyl Sebecate	X	C	A	X	A	B	—	A	A	A	A	A/50°	A/50°	A
Diethylene Glycol (DEG)	A	A	A	A	A	A	—	A	A	A	A	A	—	A
Diethylene Triamine	B	—	—	—	A	—	—	A	A	A	A	—	—	A
Diisobutyl Ketone	X	B	—	X	A	X	—	A	A	A	A	—	—	A
Diisobutylene	B	—	—	C	A	C	—	—	—	—	—	A	A	A
Diisodecyl Adicate (DIDA)	X	—	—	—	A	C	—	—	—	—	—	—	—	A
Diisodecyl Phthalate (DIDP)	X	A	—	X	A	C	—	—	—	—	—	—	—	A
Diisooctyl Adipate (DIOA)	X	—	—	—	A	C	—	A	A	A	A	—	—	A

Diisooctyl Phthalate (DIOP)	X	—	—	—	A	C	—	—	—	—	—	—	—	A
Diisooctyl Sebecate (DIOS)	—	B	—	—	A	A	—	—	—	—	—	—	—	A
Diisopropyl Amine	B	—	—	—	A	—	—	—	—	—	—	—	—	A
Diisopropyl Benzene	X	X	—	X	A	A	—	—	—	—	—	—	—	A
Diisopropyl Ketone	X	A	—	X	A	X	—	—	—	A	—	—	—	A
Dimethyl Ether	A	—	—	B	A	A	—	B	B	B	B	—	—	A
Dimethyl Phthalate	X	C	A	X	C	—	—	—	—	—	—	—	A/20°	A
Dimethyl Sulfate	X	—	—	—	A	X	—	—	A	—	—	—	—	A
Dimethyl Sulfide	X	—	—	—	A	—	—	A	A	A	A	—	—	A
Dinitrotoluene (DNT)	X	X	—	X	A	C	—	—	—	A	—	—	—	A
Diocetyl Phtahalate (DOP)	X	B	A	X	A	B	—	A	A	A	A	—	—	A
Diocetyl Sebacate (DOS)	X	C	—	X	A	C	—	A	A	A	A	—	—	A
Dioxolanes (Dioxolans)	X	B	—	X	A	C	—	—	—	—	—	—	—	A
Dipentene (Limonene)	C	X	—	X	A	A	—	A	A	A	A	—	—	A
Diphenyl Oxides (Phenl Ether)	X	C	—	X	A	A	—	B	A	A	A	—	A	A

Dipropyl Ketone (Butyrone)	X	—	—	—	A	—	—	—	—	—	—	—	—	A
Dipropylamine	B	—	—	—	A	—	—	—	—	—	—	—	—	A
Dipropylene Glycol	A	—	—	—	A	A	—	—	—	—	—	A	A	A
Dispersing Oil #10	X	X	—	X	A	C	—	A	A	A	A	—	—	A
Divinyl Benzene (DVB)	X	—	—	—	A	A	—	—	—	—	—	—	—	A
Dodecyl Benzene (Alkane)	X	—	—	—	A	A	—	A	A	A	—	—	—	A
Dow Coming (Silicones)	A	—	—	A	A	A	—	A	—	—	—	—	—	A
Dowtherm (Biphenyl & Phenyl Ether)	X	X	—	X	A	A	—	A	B	A	A	—	—	A
Drycleaning Fluids	C	—	—	X	A	A	—	A	A	A	—	X	—	A
Dyes	—	—	—	C	—	A	—	B	—	A	—	—	—	A

E

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordei-EPDM	Hytrei-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Ehthyl Silicate	A	A	—	A	A	A	—	B	A	A	A	—	—	A

Epichlorohydrin	X	B	X	X	A	X	—	A	A	A	A	A	X	A
Epsom Salts (Magnesium Sulfate)	A	—	—	A	A	A	—	A	—	A	B	A	A	A
Ethane	A	X	—	C	A	A	—	A	A	A	A	C	—	A
Ethanolamine (Aminoethanol)	B	B	—	C	A	X	—	B	A	A	—	X	C	A
Ethyl Acetate	X	B	C	X	A	X	A	A	A	A	A	C	A	A
Ethyl Acetoacetate (Acetoacetic Ester)	X	C	—	X	A	X	—	A	A	A	A	—	A/20°	A
Ethyl Acrylate	X	C	—	X	A	X	—	A	A	A	A	B	B/20°	A
Ethyl Alcohol (Ethanol)	A	A	A	A	A	B	A	B	B	A	A	A/38°	A	A
Ethyl Aluminum Dichloride	X	—	—	—	A	B	—	—	—	—	—	—	—	A
Ethyl Amine (Monoethylamine)	X	A	—	C	A	X	—	B	B	A	—	—	—	A
Ethyl Benzene	X	X	—	X	A	A	X	B	B	B	A	X	A	A
Ethyl Benzoate	X	C	—	X	A	A	—	A	A	A	A	B	—	A
Ethyl Bromide (Bromoethane)	X	B	—	B	A	—	—	X	A	A	A	—	—	A
Ethyl Butyl Acetate	X	—	—	—	A	X	—	—	—	—	—	—	—	A
Ethyl Butyl Alcohol	A	—	—	—	A	B	—	—	—	—	—	—	—	A

Ethyl Butyl Ketone	X	—	—	—	A	X	—	—	—	—	—	—	—	A
Ethyl Butyraldehyde	X	—	—	—	A	X	—	—	—	—	—	—	—	A
Ethyl Butyrate	X	X	—	X	A	C	—	B	A	A	A	B	—	A
Ethyl Caprylate	X	X	—	X	A	—	—	—	—	—	—	—	—	A
Ethyl Cellosolve	C	B	—	C	A	X	—	—	—	—	—	—	—	A
Ethyl Cellulose (Ethocel)	B	B	B	B	A	C	—	B	A	B	B	C	—	A
Ethyl Chloride (Chloroethane)	A	A	X	C	A	A	X	X	B	A	B	X	A	A
Ethyl Chlorocarbonate (Ethyl Chlorofomate)	—	—	—	C	A	A	—	—	—	—	—	—	—	A
Ethyl Cyanide (Propionitrile)	X	A	—	B	A	X	—	—	—	—	—	—	—	A
Ethyl Formate	X	C	—	B	A	A	—	B	A	B	B	—	—	A
Ethyl Isobutyrate	X	X	—	X	A	—	—	—	—	—	—	—	—	A
Ethyl Iodide	—	—	—	—	—	—	—	—	—	—	—	—	—	A
Ethyl Mercaptan (Ethanethiol)	X	X	—	C	A	B	—	B	A	B	B	—	—	A
Ethyl Oxalate	X	A	—	X	A	B	—	—	—	—	—	—	—	A
Ethyl Pentachlorobenzene	X	—	—	X	A	A	—	X	—	—	—	X	—	A

Ethyl Propionate	X	X	—	X	A	—	—	A	A	A	A	—	—	A
Ethyl Sulfate	A	—	—	—	A	A	—	—	—	X	—	—	—	A
Ethyl(Ethanol)	A	—	A	A	A	A	—	B	A	A	A	A	A	A
Ethylene Chlorohydrin	X	A	X	B	A	B	—	—	B	A	A	X	A/20°	A
Ethylene Diamine	B	A	—	A	A	X	—	C	A	A	A	A	B	A
Ethylene Dibromide (Ethylene Bromide)	X	C	—	X	A	B	—	X	X	B	B	X	A	A
Ethylene Dichloride(Dutch Oil)	X	X	X	X	A	B	—	X	B	B	B	X	A	A
Ethylene Glycol Monobutyl Ether (Butyl Cellosolve)	B	B	—	X	A	C	—	A	A	A	A	—	—	A
Ethylene Glycol Monobutyl Ether Acetate (Cellosolve Acetate)	C	B	—	X	A	C	—	A	A	A	A	—	—	A
Ethylene Glycol Monomethyl Ether (Methyl Cellosolve)	C	B	—	C	A	X	—	B	B	A	A	—	—	A
Ethylene Glycol (Ethylene Alcohol (Glycol))	A	A	A	A	A	A/20°	A	A	A	A	A	A/50°	A	A
Ethylene Oxide	X	X	A	X	A	C	A	A	B	A	A	C	A	A
Ethylene Trichloride (Trichloroethene)	X	X	—	X	A	A	—	X	A	A	—	X	—	A

Ethylene (Ethene)	B	C	—	A	A	A	—	A	A	A	—	—	—	A
Ethylhexyl Acetate	X	—	—	—	A	X	—	—	—	—	—	—	—	A
Ethylhexyl Alcohol (Ethylhexanol)	A	—	—	—	A	B	—	A	A	A	A	—	—	A
Ethylidene Chloride	X	X	—	X	A	—	—	X	B	A	B	—	—	A

F

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Fatty Acids	B	X	B	C	A	A	B	A/90%	X	A	A	B	A	A
Ferric Chloride	A	A	B	A	A	A	A	X	X	X	A/10%	A	A	A
Ferric Hydroxide	B	—	—	—	A	C	—	—	—	A	B/10%	—	—	A
Ferric Nitrate	A	A	—	A	A	A	—	X	X	B	A/10%	A	A	A
Ferric Sulfate	A	A	—	A	A	A	—	C	X	B	A/30%	A	A	A
Ferrous Chloride	A	A	X	A	A	A	—	X	X	B/20%	B/50%	A	A	A
Ferrous Sulfate	A	A	A	A	A	A	—	A/10%	C	B	A/30%	A	A	A

Fish Oil	A	—	—	—	A	A	—	—	—	—	—	—	—	A
Fluoboric Acid (Fluoroboric Acid)	A	A	X	B	A	C	—	X	X	A/30%	—	A	A	A
Fluorine (Liquid)	X	C	X	C	X	B	—	A	—	A	—	X	A/20°	A
Fluorobenzene	X	X	—	X	A	A	—	—	—	—	—	X	—	A
Fluorolube (Fluorocarbon Oils)	C	A	—	A	A	B	—	A	A	A	A	X	—	A
Fluosilicic Acid (Sand Acid)	B	B	—	A	A	A	—	X	X	A/100°	B	A	A	A
Formaldehyde (Formalin)	B	A	C/5°	C	A	A	A/40%	A	C	A/90%	A/70%	A	A/50°	A
Formamide	A	A	—	A	A	X	—	A	B	B	B	—	—	A
Formic Acid	C	B	C	B	A	C	A/50%	X	X	C	A	A/70%	A	A
Freon 11 (Trichlorofluoromethane)	C	X	B	C	A	B	—	B	A	A	—	B	A	A
Freon 113 (Trichlorotrifluoroethane)	B	X	A/55°	A	A	B	—	B	—	A	—	—	A	A
Freon 114 (Dichlorotetrafluoroethane)	A	C	B	A	A	A	—	B	—	A	—	—	A	A
Freon 114B2 (Dibromotetrafluoroethane)	B	X	—	A	A	B	—	—	—	—	—	—	—	A
Freon 115 (Chloropentafluoroethane)	A	A	—	A	A	B	—	A	—	—	—	—	—	A
Freon 12 (Dichlorofluoromethane)	B	B	B	B	A	B	—	A	A	A	—	—	A	A

Freon 13 (Chlorofluoromethane)	A	A	C	A	A	A	—	A	A	A	A	—	—	A
Freon 13B1 (Bromotrifloromethane)	A	A	—	A	A	A	—	—	—	—	—	—	—	A
Freon 14 (Tetrafluoromethane)	X	B	—	X	A	—	—	—	—	—	—	—	—	A
Freon 21 (Dichlorofluoromethane)	X	X	—	B	A	X	—	A	—	—	—	—	A	A
Freon 22 (Chlorofluoromethane)	X	C	X	B	A	X	—	A	A	A	A	—	A	A
Fruit Juices	A	A	B	A	A	A	—	A/10%	X	A	A	A	A	A
Fuel Oils (ASTM #1 thru #9)	A	X	B	C	A	A	—	A	A	A	A	C	A	A
Fumaric Acid (Boletic acid)	C	—	—	B	A	A	—	—	—	—	—	—	—	A
Fural (Furfural)	X	X	X	X	A	C	—	—	—	—	—	C	X	A
Furfural (Ant Oil)	X	B	—	B	A	C	—	A	B	A/20%	B	X	B/50°	A
Furfuryl Alcohol	X	B	B	—	A	X	—	A	A	A	A	—	B/38°	A
Fusel Oil (Grain Oil)	A	A	—	A	A	A	—	—	—	—	—	—	—	A

G

	Elastomers	Metal	Plastic

Chemical	Bunan-NBR	Nordei-EPDM	Hytrei-TPPE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminium-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Gallic Acid	B	B	X	C	A	A	—	A/20%	X	B	B	A/20°	A/20°	A
Gasoline (Petrol)	A	X	A	C	A	A	—	A	A	A	A	C	A	A
Gasoline (unleaded)	X	X	—	X	A	A	X	A	A	A	A	C	A	A
Gelatin	A	A	B	A	A	B	—	A	A	A	—	A	A	A
Ginger Oil	—	—	—	A	A	A	—	—	X	A	—	—	—	A
Glauber's Salt (Sodium Sulfate Decahydrate)	A	B	B	A	A	A	—	—	—	—	—	—	—	A
Gluconic Acid	C	—	—	—	A	A	—	B	C	A/50%	A	—	—	A
Glucose (Corn syrup)	A	A	B	A	A	A	—	A	A	A	—	A	A	A
Glue	A	B	B	A	A	A	—	A	A	B	A	A	—	A
Glycerol (Glycerine)	A	A	A	A	A	A	—	A	B	A	A	A	A	A
Glycolic Acid	A	—	—	A	—	A	A/30%	—	—	—	A	A	A	A
Glycols	A	—	—	A	A	A	A	B	B	B	—	A	A	A

Gold Monocyanide	A	—	—	A	—	A	—	—	—	X	A	—	—	A
Grape Juice	C	—	—	X	A	A	—	—	X	A	—	A	A	A
Grapefruit Oil	X	—	—	X	A	—	—	—	X	A	—	—	—	A
Grease	A	—	A	X	A	A	—	A	—	A	—	—	—	A
Green Sulfate Liquor	B	A	X	B	A	A	—	B	C	A	B	A	—	A

H

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Halowax Oil	X	X	—	X	A	A	—	X	—	—	—	—	—	A
Heptane	A	X	—	C	A	A	X	A	A	A	A	C/60°	A	A
Heptanol	A	—	—	—	—	A	—	A	A	A	A	A	—	A
Hexalin (Cyclohexanol)	B	C	—	A	A	A	—	—	—	—	—	—	—	A
Hexanol	X	B	—	A	A	C	—	A	B	A	B	—	—	A
Hexy Alcohol (1-Hexanol)	A	C	—	B	A	A	—	A	A	A	—	—	A	A

Hexyl(1-Hexanol)	A	—	—	B	A	A	—	A	—	A	A	A/20°	A	A
Hexylene Glycol (Brake fluid)	A	C	—	A	A	A	—	A	A	A	A	—	—	A
Honey	—	—	—	A	A	—	—	A	A	A	—	A	—	A
Hydraulic Oil(petroleum base)	A	X	X	B	A	A	—	A	A	A	A	X	—	A
Hydrazine (Diamine)	C	A	X	C	A	X	—	A	X	A	A	X	X	A
Hydrobromic Acid	X	A	—	C	A	A	A/10%	A	A	A	—	B	A	A
Hydrochloric Acid														
Hydrochloric Acid 10%	B	A	X	B	A	A	—	X	C	X	B	A	A	A
Hydrochloric Acid 20%	B	A	X	B	A	A	—	X	C	X	A	B	A	A
Hydrochloric Acid 30% (Conc.)	C	A	X	C	A	B	—	X	X	X	A	C	A	A
Hydrocyanic Acid (Fomonitrile)	B	A	X	C	A	A	—	A/10%	X	A	B	A	A	A
Hydrofluoric Acid (Conc.) Cold	—	C	X	C	A	B	X	X	X	X	B	X	B	A
Hydrogen Fluoride (Anhydrous)	X	C	—	C	A	A	X	X	—	X	A	C	A	A
Hydrogen Peroxide							—							
Hydrogen Peroxide 10%	B	—	—	B	A	A	—	A	—	A	A	—	—	A

Hydrogen Peroxide 3%	B	B	X	B	A	A	A	A	—	—	—	A	A	A
Hydrogen Peroxide 30%	C	B	X	C	A	A	A	A	B	A	A	A	A	A
Hydrogen Peroxide 90%	X	C	X	B	A	A	X	A	X	A	—	X	—	A
Hydrogen Sulfide (Wet)	X	A	A	C	A	X	A	A/90%	X	A/75°	A/75°	A	A	A
Hydroquinone	C	—	—	X	A	C	—	A/90%	B	A/10%	B	—	A	A
Hydroxyacetic Acid-10%	X	—	—	X	A	—	—	B	—	B	—	—	—	A
Hypochlorous Acid	X	B	—	X	A	A	—	X	X	X	A	X	A	A

I

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TPO	Aluminium-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Idoform	—	A	—	—	A	—	—	A	A	A	A	—	A	A
Ink	A	—	—	A	A	A	—	C	X	A	A	—	—	A
Iodine	B	B	B	B	A	A	—	A	X	X	A	A	A/65°	A
Isoamyl Acetate	X	B	—	X	A	X	—	A	A	A	A	—	—	A

Isoamyl Alcohol	A	A	—	A	A	A	—	—	—	—	—	—	—	A
Isoamyl Butyrate	X	—	—	—	A	X	—	A	A	A	A	—	—	A
Isoamyl Chloride	X	X	—	X	A	A	—	X	—	—	—	—	—	A
Isobutyl Acetate	X	C	—	X	A	X	—	A	A	A	A	—	—	A
Isobutyl Alcohol (Isobutanol)	B	A	—	B	A	A	—	A	—	—	—	A	A	A
Isobutyl Amine	X	—	—	—	A	X	—	—	—	—	—	—	—	A
Isobutyl Chloride	X	—	—	—	A	B	—	X	B	B	A/90%	—	—	A
Isobutyl(2-Methyl-1-Propanol)	C	—	—	A	A	A	—	B	—	A	A	—	A	A
Isobutyric Acid	X	A	—	B	A	—	—	A	—	—	—	—	—	A
Isododecane	B	X	—	A	A	A	—	B	B	B	B	—	—	A
Isooctane (Trimethylpentane)	A	X	A	B	A	A	X	A	A	A	A	A	A	A
Isopentane	A	—	—	—	A	A	—	—	—	—	—	—	—	A
Isophorone	X	C	—	X	A	X	—	A	A	A	A	—	—	A
Isopropyl(2-Propanol)	C	—	—	B	A	A	—	B	C	A	A	A	A/65°	A
Isopropyl Acetate	X	B	—	X	A	X	—	A	A	A	A	B	—	A

Isopropyl Alcohol (Isopropanol)	B	B	A	A	A	A	A	A/90%	A	A	A	A	A	A
Isopropyl Amine	X	—	—	—	A	X	—	—	A	A	—	—	—	A
Isopropyl Chloride	X	X	—	X	A	B	—	X	A	A	A	X	—	A
Isopropyl Ether	C	X	—	C	A	C	B	B	—	A	—	X	A/70%	A

J

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	Hytrel-TPPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Jet Fuels(JP1 to JP6)(ASTM-A,AI&B)	A	X	X	C	A	A	—	A	A	A	A	X	A	A

K

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	Hytrel-TPPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Kerosine (Kerosene)	A	X	A	C	A	A	—	A	A	A	A	X	A	A

L

	Elastomers						Metal					Plastic		

Chemical	Bunan-NBR	Norde-EPDM	HytreI-TPPE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Lactic Acid	B	A	X	B	A	A	—	A	X	A/70%	A/60%	A	A	A
Lactol (Aliphatic Naptha Solvent)	C	—	—	X	A	A	—	A	A	A	A	—	—	A
Laquer Solvents	X	X	C	X	A	X	—	X	B	A	A	C	X	A
Laquers	X	X	X	X	A	X	—	X	B	A	A	—	—	A
Lard(Lard Oil)	A	X	B	C	A	A	—	A	A	B	A	A	A	A
Latex	A	—	—	A	A	—	—	A	—	A	—	A	—	A
Lauryl Alcohol (n-Dodecanol)	A	—	—	—	A	B	—	A	A	A	A	—	—	A
Lavender Oil	B	X	—	X	A	B	—	—	—	—	—	—	—	A
Lead Acetate (sugar of lead)	B	A	—	A	A	X	A	X	—	B	B	A	A	A
Lead Chloride	—	—	—	B	A	—	—	X	—	B	B	A	A	A
Lead Nitrate	B	A	—	A	A	A	—	X	B	B	B	A	A	A
Lead Sulfamate	B	—	—	A	A	A	—	—	—	—	—	A	—	A
Lemon Oil(Cedro Oil)	—	—	—	C	A	A	—	A	—	A	—	—	—	A

Lignin Liquor	A	—	—	A	A	A	—	—	—	A	—	—	—	A
Ligroin (Ligroine) (Benzine)	A	X	—	B	A	A	—	—	A	A	—	X	—	A
Lime Bleach	A	A	—	C	A	A	—	X	—	—	—	B	—	A
Lime Slurries	B	—	C	A	A	B	—	B	—	B	—	—	—	A
Lime Sulfur	A	A	—	A	A	A	—	X	—	A	—	A	—	A
Lime, Soda (Slaked lime&soda ash)	B	A	—	B	A	B	—	—	—	—	—	—	—	A
Limonene	C	X	—	X	A	A	—	—	—	—	—	—	—	A
Lindol (Tritolyl Phosphate)	X	—	—	C	A	B	—	—	—	—	—	—	—	A
Linolenic Acid	B	X	—	X	A	B	—	A	—	A	A	A	A	A
Linseed Oil(Flaxseed Oil)	A	C	B	A	A	A	—	A	A	A	A	A	A	A
Litnium Bromide	A	—	—	X	A	A	—	—	A	—	—	—	A	A
Lubricating Oils(petroleum)	A	X	A	B/65°	A	A	—	A	A	A	A	C	A	A
Lye (Potassium Hydroxide)	C	—	C	B	A	B	—	—	—	A	—	A	A/65°	A

M

	Elastomers	Metal	Plastic

Chemical	PTFE	Kynar-PVD	Polypropylene-PPG	Hastelloy	Stainless Steel-316SS	Cast Iron-FC	Aluminum-T356	Santoprene-TP0	Viton-FPM	PTFE	Neoprene-CR	HytreI-TPEE	NordeI-EPDM	Bunan-NBR
Methyl Salicylate(Betula Oil)	A	—	—	—	—	A	A	—	B	A	X	—	C	X
Mineral Oil(petroleum)	A	A	B	A	A	A	A	—	A	A	B	A	X	A

N

	Elastomers						Metal					Plastic		
Chemical	PTFE	Kynar-PVD	Polypropylene-PPG	Hastelloy	Stainless Steel-316SS	Cast Iron-FC	Aluminum-T356	Santoprene-TP0	Viton-FPM	PTFE	Neoprene-CR	HytreI-TPEE	NordeI-EPDM	Bunan-NBR
Neatsfoot Oil	A	—	—	—	A	—	—	—	A	A	—	—	C	A

O

	Elastomers						Metal					Plastic		
Chemical	PTFE	Kynar-PVD	Polypropylene-PPG	Hastelloy	Stainless Steel-316SS	Cast Iron-FC	Aluminum-T356	Santoprene-TP0	Viton-FPM	PTFE	Neoprene-CR	HytreI-TPEE	NordeI-EPDM	Bunan-NBR
Oleic Acid (Red Oil)	A	A	B	A	B	C	A	—	B	A	X	A	C	C
Olive Oil	A	A	A	A	A	A	A	—	A	A	C	—	C	A

P

	Elastomers						Metal					Plastic		
Chemical	BunaN-NBR	Nordel-EPDM	Hytrel-TPPE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Palm Oil	A	—	—	C	A	A	—	—	A	A	A	—	—	A
Peanut Oil	A	X	—	B	A	A	—	—	A	A	A	A/20'	A	A
Peppermint Oil	X	—	—	X	A	A	—	—	—	A	—	—	—	A
Petroleum Oil(Crude Oil)(Sour)	B	X	C	C	A	A	—	B	B	A	A	X	A	A

Q

	Elastomers						Metal					Plastic		
Chemical	BunaN-NBR	Nordel-EPDM	Hytrel-TPPE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE

R

	Elastomers						Metal					Plastic		
Chemical	Buna-N-NBR	Nordel-EPDM	Hytrel-TPPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TPPO	Aluminium-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Rape-Seed Oil(Colza Oil)	B	A	—	C	A	A	—	—	A	A	A	—	—	A
Rose Oil	—	—	—	C	A	A	—	—	—	A	—	—	—	A
Rosin Oil(Rosinol)	A	—	—	A	A	A	—	—	—	—	—	—	—	A

S

	Elastomers						Metal					Plastic		
Chemical	Buna-N-NBR	Nordel-EPDM	Hytrel-TPPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TPPO	Aluminium-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Sesame Seed Oil	A	—	—	C	A	A	—	—	A	A	—	—	—	A
Silicoe Oils(Veresilube, etc)	A	A	A	C	A	A	—	B	B	A	A	A	A	A
Soybean Oil	A	C	A	A	A	A	—	A	A	A	A	B	—	A
Spem Oil(Whale Oil)	A	—	—	X	A	A	—	—	A	A	A	—	—	A

T

--

	Elastomers						Metal					Plastic		
Chemical	Buna-N-NBR	Nordei-EPDM	Hytrei-TPPE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TPPO	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Tall Oil(Liquid Rosin)	A	X	-	B	A	A	-	X	B/100°	B	A	A	A	A
Tallow	A	-	-	-	A	A	-	A	-	A	-	B	-	A
Tannic Acid	C	C	A/10%	B	A	A	A/10%	A	A	A	B/10%	A	A	A
Tanning Liquors	A	-	-	B	A	-	-	A	-	A	A	A	-	A
Tar,Bituminuous (Coai Tar)(Pitch)	B	X	B	C	A	A	-	A	-	A	A	A	-	A
Tartaric Acid	B	B	B	A	A	A	-	A/20%	X	A	A/90%	A	A	A
Terpenes	C	X	-	X	A	A	-	A	X	-	-	-	-	A
Terpineol (Terpilenol)	C	C	-	X	A	A	-	A	A	A	A	X	B/50°	A
Tertiary Butyl Alcohol	A	-	-	A	A	-	-	-	-	-	-	B	-	A
Tertiary Butyl Catechol	X	-	-	B	A	A	-	C	B	B	-	-	-	A
Tertiary Butyl Mercaptan	X	-	-	X	A	A	-	-	-	-	-	-	-	A
Tetra Bromomoethane	X	-	-	X	A	A	-	X		-	-	X	-	A

Tetrabutyl Titanate	B	B	-	A	A	A	-	-	-	-	-	-	-	A
Tetrachlorodifluoroethane	X	-	-	X	A	-	-	-	-	-	-	-	-	A
Tetrachloroethene(Acetylene Tetrachloride)	X	X	-	X	A	A	X	X	A	C	A/90% 100°	X	A	A
Tetrachloroethylene	-	-	-	-	-	-	-	-	-	-	-	-	A	A
Tetraethyl Lead	B	X	-	X	A	B	-	B	A	A	-	A	A	A
Tetraethylene Glycol(TEG)	A	-	-	-	A	A	-	-	-	-	-	-	-	A
Tetrahydrofuran(THF)	X	C	C	X	A	X	-	-	-	-	-	C/38°	B20°	A
Tetrahydronaphthalene(Tetralin)	X	X	-	X	A	A	-	A	A	A	A	C	-	A
Thionyl Chloride	X	X	-	X	A	B	-	C	A	A	A/10%	B	X	A
Thiophene	X	X	-	X	A	C	-	-	-	-	-	-	-	A
Titanium Tetrachloride	C	X	-	X	A	A	-	X	A	B	B	B	B	A
Toluene (Toluol)	C	X	C	X	A	X	X	A	A	A	A	X	A	A
Toluene Diisocyanate	-	A	B	X	A	-	-	-	-	-	-	-	-	A
Toluidine	X	-	-	-	A	B	-	A	A	A	A	-	-	A
Tomato Pulp & Juice	A	-	-	-	A	-	-	B	-	A	A	A	A	A

Toothpaste	A	-	-	C	A	A	-	-	X	A	A	-	-	A
Transformer Oil(Petroleum)	B	X	—	C	A	A	—	A	A	A	A	B	—	A
Transmission Fluid(Type A)	A	X	B	C	A	A	-	A	A	A	A	-	-	A
Triacetin	A	A	-	B	A	X	-	B	-	-	-	-	-	A
Triallyl Phosphate	X	A	-	C	A	A	-	-	-	-	-	B	A	A
TriaRyl Phosphate	X	-	-	C	A	A	-	-	-	-	-	-	-	A
Tributoxyl Ethyl Phosphate	X	A	-	X	A	B	-	-	-	-	-	-	-	A
Tributyl Mercaptan	X	-	-	X	A	A	-	-	-	-	-	-	-	A
Tributyl Phosphate(TBP)	X	C	C	X	A	X	-	A	A	A	-	C/38°	A/38°	A
Trichloroacetic Acid(TCA)	C	C	X	B	A	B	-	X	X	X	B	B	B	A
Trichlorobenzenes	X	-	-	X	A	B	-	X	A	A	B	-	-	A
Trichloroethane	X	X	-	X	A	B	-	X	A	A	A	X	A	A
Trichloroethylene (Ex-Tri)(Hi-Tri)	X	X	X	X	A	C	X	X	B	A/90% 75°	A	X	A	A
Trichloropropane	X	-	-	A	A	B	-	X	A	A	A	X	-	A
Tricresyl Phosphate (Lindol)(TCP)	X	A	C	C	A	C	-	-	A	B	A	B	X	A

Triethanol Amine(TEA)	X	B	X	A	A	C	-	A	A	A	A	A	X	A
Triethyl Aluminum(ATE)	X	-	-	X	A	B	-	-	-	-	-	-	-	A
Triethyl Amine	A	-	-	B	A	-	-	-	A	A	A	C	A/50°	A
Triethyl Brate	X	-	-	X	A	A	-	-	-	-	-	-	-	A
Triethylene Glycol(TEG)	A	-	-	-	A	A	-	-	-	-	-	A	-	A
Trimethylene Glyco l	A	A	-	-	A	A	-	A	A	A	A	-	-	A
Trinitrotoluene(TNT)	X	X	-	B	A	C	-	-	-	-	-	-	-	A
Trioctyl Phosphate(TOP)	X	A	-	X	A	B	-	-	-	-	-	-	-	A
Tridecyl Alcohol	A	-	-	-	A	B	-	-	-	-	-	-	-	A
Tung Oil(Wood Oil)	A	X	B	C	A	A	—	A	—	A	A	A	—	A
Turpentine	A	X	B	X	A	A	-	A	A	A	A	X	A	A

U

	Elastomers						Metal					Plastic		
Chemical	BunaN-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TPo	Aluminium-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Unsymmetrical Dimethyl Hydrazine(UDMH)	C	A	-	C	A	X	-	-	-	-	-	X	A	A
Urea(Carbamide)	B	-	B	B	A	A	A/30%	B	-	B/50%	-	A	A	A
Urine	A	-	-	X	A	A	A	A	A	A	A	A	A	A

V

	Elastomers						Metal					Plastic		
Chemical	BunaN-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TPo	Aluminium-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Valeric Acid	X	A	-	X	A	-	-	A	-	-	-	-	-	A
Vamish	B	X	-	C	A	A	-	A	-	A	-	-	-	A
Vanilla Extract(Vanillin)	A	-	-	X	A	X	-	-	-	A	-	-	-	A
Vegetable Juices	A	-	-	C	A	-	-	C	-	A	-	-	-	A

Vegetable Oils	B	A	—	C	A	A	—	A	B	A	A	X	—	A
Vinegar	C	A	C	B	A	A	A	C	X	A	A	A	A	A
Vinyl Acetate	X	-	-	B	A	X	-	B	A	A	A	B	A	A
Vinyl Chloride(Chloroethylene)	X	C	-	X	A	A	-	X	A	A	A	X	B	A

W

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Walnut Oil	A	—	—	B	A	A	—	—	—	—	—	—	—	A
Water Distilled	A	A	-	C	A	A	A	A	C	A	A	A	A	A
Water Fresh	A	A	A/22°	B	A	A	A	A	A	A	A	A	A	A
Waxes	A	X	-	A	A	-	-	A	-	A	A	-	-	A
Weed Killers	B	-	-	C	-	A	-	X	-	A	-	-	-	A
Whisky	B	A	B	A	A	A	-	A	X	A	A	A	A	A
White Oil(Mineral)(Petroleum)	A	X	—	C	A	A	—	—	—	A	A	—	—	A

White Sulfate Liquor	B	A	-	A	A	B	-	B	C	A	B	A	A	A
Wines	A	A	A	A	A	B	-	C	X	A	A	A	A	A
Wort,Distillery	-	-	-	A	A	A	-	A	B	A	A	-	-	A

X

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Xylene(Xylol)	X	X	C	X	A	A	X	A	B	B	A	X	A	A
Xylidines(Xylidin)	-	X	-	X	A	X	-	B	B	-	-	-	-	A

Y

	Elastomers						Metal					Plastic		
Chemical	Bunan-NBR	Nordel-EPDM	HytreI-TPEE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE

Z

	Elastomers	Metal	Plastic

Chemical	Bunan-NBR	Nordel-EPDM	Hytrel-TPPE	Neoprene-CR	PTFE	Viton-FPM	Santoprene-TP0	Aluminum-T356	Cast Iron-FC	Stainless Steel-316SS	Hastelloy	Polypropylene-PPG	Kynar-PVD	PTFE
Zeolite	C	A	-	C	A	A	-	-	-	A	A	-	-	A
Zinc Acetate	C	A	-	B	A	X	-	C	-	-	-	A	A	A
Zinc Carbonate	A	-	-	-	A	A	-	B	B	B	B	-	-	A
Zinc Chloride	B	A	A	B	A	A	A	A/10%	B	A/10%	A	A	A	A
Zinc Hydrosulfite	A	-	-	A	A	A	-	X	-	A	-	-	-	A
Zinc Sulfate	A	A	X	A	A	B	A	B/20%	X	B	B/20%	A	A	A