CHEMICAL RESISTANCE CHART FOR VARIOUS PUMP MATERIALS

The recommendations listed on the following pages are based upon information from material suppliers and careful examination of available information and are believed to be accurate. However, since the resistance of metals, plastics, and elastomers can be affected by concentration, temperature, presence of other chemicals and other factors, this information should be considered as a general guide rather than an unqualified guarantee. Ultimately the customer must determine the suitability of the pump used in various solutions.

All recommendations assume ambient temperatures unless otherwise noted. The ratings for these materials are based upon the chemical resistance only. Added consideration must be given to pump selections when the chemical is abrasive, viscous in nature, or has a specific gravity greater than 1:1.

How to use this chart: Column at left lists chemicals in alphabetic order. Columns at right list various pump materials, and their resistance to the chemicals are rated by a letter code.

Chemical Effect Ratings

A – *NO EFFECT - ACCEPTABLE*

B – *MINOR EFFECT - ACCEPTABLE*

C – *MODERATE EFFECT - QUESTIONABLE*

D – *SEVERE EFFECT - NOT RECOMMENDED*

*** – NOT TESTED**

FOOTNOTES

1. P.V.C. - Satisfactory to 72°F
2. Polypropylene - Satisfactory to 72°F
3. Polypropylene - Satisfactory to 120°F
4. Buna-N - Satisfactory for "O" Rings
5. Polyacetal - Satisfactory to 72°F
6. Ceramag - Satisfactory to 72°F

The performance comments and limitations listed above are supplied by Harwil Corporation for information only. Ultimately the customer must determine the suitability of Harwil Corporation products used in various solutions, situations and environments.

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
A																
Acetaldehyde[5]	A	A	B	A	A	D	*	D	A	*	B	A	D	B	B	A
Acetamide	B	A	*	*	*	*	*	*	*	*	*	*	A	A	A	A
Acetate Solv.[2]	B	A	B	*	*	A	C	B	A	*	D	*	D	D	*	A
Acetic Acid, Glacia[1]	B	A	B	A	A	C	C	C	A	C	B	A	D	D	B	B
Acetic Acid 20%	B	A	*	A	A	*	C	B	A	A	A	A	A	C	*	B
Acetic Acid 80%	B	A	*	A	A	*	C	D	A	B	B	*	A	C	*	B
Acetic Acid	B	A	B	A	A	C	C	A	A	A	A	A	C	C	B	A
Acetic Anhydride	A	A	B	A	A	C	D	D	A	D	A	A	D	A	B	A
Acetone[6]	A	A	A	A	A	A	A	D	A	D	B	A	D	D	A	B
Acetyl Chloride	C	A	*	*	*	D	*	*	A	*	*	A	A	*	*	A
Acetylene[2]	A	A	A	B	*	B	*	B	*	*	D	A	A	A	A	A
Acrylonitrile	A	C	B	B	B	A	*	*	*	*	B	A	C	D	D	A
Alcohols																
Amyl	A	A	C	A	A	A	B	A	A	C	B	A	A	A	A	A
Benzyl	A	A	B	A	A	A	C	D	*	A	A	*	A	D	B	A
Butyl	A	A	B	B	A	B	C	A	A	A	B	A	A	A	A	A
Diacetone[2]	A	A	A	A	A	A	C	D	*	A	D	*	D	D	A	A
Ethyl	A	A	B	A	A	A	C	A	*	A	A	*	A	A	B	A
Hexyl	A	A	A	A	A	A	C	*	*	A	A	*	A	A	A	A
Isobutyl	A	A	B	A	A	A	C	*	*	A	A	*	A	C	A	A
Isopropyl	A	A	B	A	A	A	C	*	*	A	A	*	A	C	A	A
Methyl[6]	A	A	B	A	A	A	C	B	A	A	A	*	C	B	A	A
Octyl	A	A	A	A	A	A	C	*	*	A	*	*	A	B	A	A
Propyl	A	A	A	A	A	A	*	A	A	A	A	*	A	A	A	A
Aluminum Chloride 20%	D	C	B	A	A	D	*	A	*	A	A	A	A	A	A	A
Aluminum Chloride	D	C	D	C	A	C	*	A	A	A	A	A	A	A	*	A
Aluminum Fluoride	D	C	*	D	B	*	*	A	A	A	A	*	A	A	*	A
Aluminum Hydroxide[6]	A	A	A	*	*	A	*	A	A	A	A	*	A	A	*	A
Alum Potassium Sulfate (Alum), 10%	A	*	A	*	B	*	*	A	A	*	*	*	A	*	*	A
Alum Potassium Sulfate (Alum), 100%	D	A	B	*	B	C	*	A	A	A	A	*	A	A	*	A
Aluminum Sulfate	C	C	A	A	A	C	C	A	A	A	A	A	A	A	A	A
Amines	A	A	A	B	A	B	*	C	A	B	*	*	D	D	B	A
Ammonia 10%	*	A	*	A	A	*	*	A	A	A	A	A	A	D	*	B
Ammonia, Anhydrous	B	A	B	B	A	D	*	A	A	A	A	B	D	B	A	A
Ammonia, Liquids	A	A	D	*	B	D	*	A	A	A	A	*	D	B	A	A
Ammonia, Nitrate	A	A	C	*	*	D	*	B	*	A	A	*	*	A	*	A
Ammonium Bifluoride	C	A	D	*	B	*	*	A	*	A	A	*	A	A	*	A
Ammonium Carbonate	A	A	C	A	B	B	*	A	A	A	A	*	B	D	A	A

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
Ammonium Casenite	*	A	*	*	*	*	*	*	*	A	*	*	*	*	*	A
Ammonium Chloride	A	C	C	D	A	D	C	A	A	A	A	A	A	A	A	A
Ammonium Hydroxide	A	A	C	A	A	D	D	A	A	A	A	A	B	B	A	A
Ammonium Nitrate	A	A	B	A	A	D	D	A	A	A	A	A	D	A	A	A
Ammonium Oxalate	A	A	*	*	A	*	*	*	*	*	*	*	*	A	*	A
Ammonium Persulfate	A	A	C	C	A	A	*	A	A	A	A	*	C	A	A	A
Ammonium Phosphate, Dibasic	A	A	B	A	A	C	*	A	A	A	A	*	A	A	A	A
Ammonium Phosphate, Monobasic	A	A	B	A	A	D	*	A	A	A	A	*	A	A	A	A
Ammonium Phosphate, Tribasic	A	A	B	A	A	C	*	A	A	A	A	*	A	A	A	A
Ammonium Sulfate	D	B	B	A	A	B	C	A	A	A	A	A	D	A	A	A
Ammonium Thio-Sulfate	*	A	*	A	*	*	*	*	*	*	*	*	*	A	*	A
Amyl-Acetate	A	A	B	A	A	C	*	D	A	D	D	A	D	D	A	A
Amyl Alcohol	A	A	B	A	A	A	*	A	A	C	A	*	B	B	A	A
Amyl Chloride	C	B	D	*	A	A	*	D	A	D	D	*	A	D	D	A
Aniline	A	A	C	A	B	C	*	D	A	D	B	A	C	D	B	A
Anti-Freeze	A	A	A	*	A	B	B	A	A	A	A	A	A	A	A	A
Antimony Trichloride	D	D	D	C	A	*	*	A	A	*	*	*	A	*	*	A
Aqua Regia (80%, HCl, 20%, HNO)	D	D	D	A	D	D	*	D	A	D	C	*	C	D	D	D
Arochlor 1248	*	*	*	*	*	*	*	*	*	D	*	*	A	D	B	A
Aromatic Hydrocarbons	*	A	A	*	*	A	*	D	*	D	*	*	A	D	D	A
Arsenic Acid	A	A	D	*	*	D	B	A	A	A	A	*	A	A	*	A
Asphalt	B	A	C	*	*	A	*	A	*	*	A	A	A	B	D	A
B																
Barium Carbonate	A	A	B	A	A	B	*	A	A	A	A	*	A	A	*	A
Barium Chloride	D	A	D	A	A	B	*	A	A	A	A	A	A	A	A	A
Barium Cyanide	*	A	*	*	*	C	*	*	*	*	*	*	A	C	A	A
Barium Hydroxide	C	A	D	B	B	B	*	A	A	A	A	A	A	A	A	A
Barium Nitrate	A	A	*	A	*	D	*	B	*	A	*	*	A	A	A	B
Barium Sulfate	A	A	D	A	A	C	*	A	A	A	A	A	A	A	A	B
Beet Sugar Liquids	A	A	A	*	*	A	B	A	A	A	A	*	A	A	A	A
Benzaldehyde[3]	A	A	B	A	A	A	*	D	A	D	D	A	D	D	A	A
Benzene[2]	A	A	B	A	B	B	A	D	A	D	D	A	A	D	D	A
Benzoic Acid[2]	A	A	B	A	A	B	*	A	A	A	D	*	A	D	D	A
Benzol	A	A	B	A	A	B	A	D	A	D	A	*	D	D	*	A
Borax (Sodium Borate)	A	A	C	B	A	A	B	A	A	A	A	A	A	B	A	A
Boric Acid	A	A	B	A	A	B	C	A	A	A	A	*	A	A	A	A
Brewery Slop	*	A	*	*	*	A	*	*	*	*	*	*	A	A	*	A
Bromine[2] (wet)	D	D	D	A	A	C	*	B	A	D	D	D	A	D	D	C
Butadiene	A	A	A	*	*	C	A	A	A	*	*	B	A	A	A	A
Butane[2 1]	A	A	A	*	*	A	A	A	A	D	D	A	A	A	D	A
Butanol	A	A	A	*	A	A	*	*	A	*	*	*	*	*	*	*
Butter	B	A	A	*	*	D	*	*	*	B	*	*	A	A	A	A
Buttermilk	A	A	A	*	*	D	*	*	A	A	*	*	A	A	*	A
Butylene	B	A	A	*	*	A	A	B	A	*	*	A	A	B	D	A
Butyl Acetate[1]	*	C	A	*	A	A	*	D	A	D	D	A	D	B	B	A
Butyric Acid[1]	B	A	B	A	A	C	*	B	A	A	A	*	D	D	B	A
Butyl Acetate	B	A	C	A	A	C	*	A	A	A	A	*	A	A	*	*
Butyric Acid	A	A	C	A	A	C	*	A	A	A	A	*	A	A	*	A
C																
Calcium Bisulfate	D	A	D	*	*	D	D	A	A	*	*	*	A	A	*	A
Calcium Bisulfide	*	B	C	A	A	C	*	A	A	A	A	*	A	A	D	A
Calcium Bisulfite	B	A	C	A	A	C	*	A	A	A	A	*	A	A	*	*
Calcium Carbonate	A	A	C	A	A	C	*	A	A	A	A	*	A	A	*	A
Calcium Chlorate	B	A	*	B	B	C	*	A	A	*	*	*	A	*	*	A
Calcium Chloride	A	D	C	A	A	B	*	A	A	A	A	A	A	A	A	A
Calcium Hydroxide	A	A	C	A	A	B	*	A	A	A	A	*	A	A	A	A
Calcium Hypochlorite	D	C	C	A	B	D	*	D	A	A	A	*	A	B	A	A
Calcium Sulfate	A	A	B	A	B	B	*	A	A	A	A	A	A	A	*	A
Calgon	A	A	*	*	*	C	*	*	*	A	A	*	A	A	*	A
Cane Juice[2]	A	A	B	*	*	B	C	A	*	*	D	*	*	A	*	A
Carbolic Acid (See Phenol)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Carbon Bisulfide[2]	A	A	A	*	*	C	*	D	*	*	D	*	A	D	D	A
Carbon Dioxide (wet)	A	A	C	*	A	C	C	*	A	*	*	*	*	*	*	*
CarbonDisulfide[2]	B	A	C	*	*	C	C	D	A	D	D	A	A	D	D	A
Carbon Monoxide	A	A	A	*	*	*	*	A	*	B	A	*	A	A	A	A
Carbon Tetrachloride[2 1]	B	B	C	A	A	C	A	C	A	D	D	C	A	C	*	C
Carbonated Water	A	A	A	*	*	B	*	A	*	A	A	*	A	A	A	A
Carbonic Acid	A	B	A	*	A	B	*	A	A	A	A	*	A	B	A	A
Catsup	A	A	D	*	*	C	*	A	*	A	A	*	A	A	*	A
Chloracetic Acid[2]	D	D	C	A	A	D	*	A	A	*	D	*	D	D	B	B
Chloric Acid	D	D	*	*	*	*	*	D	A	*	*	*	*	D	*	D
Chlorinated Glue	A	A	D	*	*	C	*	*	*	C	*	*	A	C	B	A
Chlorine																
Anhydrous Liquid	D	D	D	D	A	D	*	D	A	A	D	C	A	D	B	B
Chlorine (dry)	A	A	D	D	A	A	B	*	A	*	*	C	D	*	*	D
Chlorine Water	*	D	D	A	B	D	D	A	A	C	D	C	A	D	*	*
Chlorobenzene (Mono)	A	A	B	*	A	B	*	D	A	D	D	A	A	D	D	A
Chloroform	A	A	D	A	A	B	*	D	A	D	D	C	A	D	D	A
Chlorosulfonic Acid[1]	D	*	D	A	B	D	*	C	A	D	D	D	D	D	D	C
Chlorox (Bleach)	A	A	C	*	A	A	*	A	A	A	D	C	A	C	B	A
Chocolate Syrup	A	A	A	*	*	*	*	*	*	A	A	*	A	A	*	A
Chromic Acid 5%	A	A	C	A	A	D	D	A	*	C	A	A	A	D	A	B
Chromic Acid 10%	B	*	*	A	A	*	D	A	A	A	A	*	A	D	*	C
Chromic Acid 30%	B	*	*	A	A	*	D	A	A	D	A	*	A	D	*	D
Chromic Acid 50%	B	B	C	A	A	D	D	B	A	D	B	B	A	D	A	C
Cider	A	A	B	*	*	A	*	A	*	A	*	*	A	A	*	A
Citric Acid	A	A	C	A	A	D	C	A	A	A	B	*	A	D	A	A
Citric Oils	A	A	C	*	*	B	*	*	*	A	A	*	A	A	*	A

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
Coffee	A	A	A	*	*	B	*	*	A	A	A	*	A	A	*	A
Copper Chloride	D	D	D	A	A	D	*	A	A	A	A	A	A	A	A	A
Copper Cyanide	A	A	D	A	A	C	*	A	A	A	A	A	B	B	A	C
Copper Floborate	D	D	D	*	B	D	*	A	A	*	*	*	A	B	*	A
Copper Nitrate	A	A	D	A	A	D	*	A	A	A	A	*	A	A	*	A
Copper Sulfate (5% Sol)	A	A	D	A	A	D	D	A	A	A	A	A	A	A	*	A
Copper Sulfate	B	*	*	A	A	C	D	A	A	A	A	*	B	B	A	A
Cream	A	A	A	*	*	C	*	*	*	A	A	*	A	A	*	A
Cresols[2]	A	A	B	*	*	D	C	D	*	*	C	A	D	D	D	A
Cresylic Acid	A	A	C	A	B	C	*	B	A	*	*	*	A	D	D	A
Cyclohexane	A	*	A	A	*	A	*	*	*	D	D	A	A	A	D	A
Cyanic Acid	A	*	*	*	*	*	*	*	*	*	*	*	*	C	*	A
D																
Detergents	A	A	A	*	*	A	*	A	*	A	A	A	A	A	A	A
Dichlorethane	A	A	*	*	A	*	*	D	A	*	*	*	B	*	*	A
Diesel Fuel	A	A	A	*	*	A	*	*	*	D	D	A	A	A	D	A
Diethylamine	A	*	A	*	*	A	*	D	A	B	C	*	D	B	B	A
Diethylene Gycol	A	*	*	*	*	A	*	*	*	A	*	*	A	A	A	A
Diphenyl Oxide	A	*	*	*	*	A	*	*	*	*	*	*	A	D	D	A
Dyes	A	A	B	*	*	C	*	*	*	A	*	*	A	*	*	A
E																
Epsom Salts (Magnesium Sulfate)	A	A	A	A	B	B	*	A	*	A	A	*	A	A	*	A
Ethane	A	*	A	*	*	A	*	*	*	D	*	*	A	A	D	A
Ethanolamine	A	A	*	*	*	*	*	*	*	*	*	A	D	B	*	A
Ether[3]	A	A	A	*	B	B	A	D	*	D	*	A	C	D	C	A
Ethyl Acetate[2]	A	A	B	*	B	B	*	D	A	D	C	A	D	D	B	A
Ethyl Chloride	A	A	B	A	B	B	*	D	A	D	D	A	A	D	A	A
Ethyl Sulfate	D	*	*	*	*	*	*	*	*	*	*	*	A	A	*	A
Ethylene Chloride[2]	A	A	C	B	B	A	*	D	A	D	D	A	A	D	C	A
Ethylene Dichloride	A	A	D	A	B	C	*	D	A	D	A	A	A	D	C	A
Ethylene Glycol[4]	A	A	A	*	A	B	B	A	A	A	A	A	A	A	A	A
Ethylene Oxide	*	A	A	*	*	A	*	D	A	A	*	*	D	D	C	A
F																
Fatty Acids	A	A	B	A	A	C	*	A	A	B	A	*	A	C	C	A
Ferric Acid	D	D	D	A	B	D	D	A	A	A	A	A	A	D	A	A
Ferric Nitrate	A	A	D	A	A	D	*	A	A	A	A	A	A	A	A	A
Ferric Sulfate	A	C	D	A	A	D	D	A	A	A	A	A	A	B	*	A
Ferrous Chloride	D	D	D	A	B	C	*	A	A	A	A	A	A	B	*	A
Ferrous Sulfate	A	C	D	A	B	C	*	A	A	A	A	A	A	B	*	A
Fluoboric Acid	D	B	*	D	A	*	*	A	A	B	A	*	A	B	*	A
Fluorine	D	D	D	D	A	D	*	C	C	*	*	*	*	*	*	D
Fluosilicic Acid	*	B	D	D	B	*	*	A	A	A	A	*	B	A	*	C
Formaldehyde 40%	*	A	*	A	A	*	*	B	A	A	A	A	D	B	*	A
Formaldehyde	A	A	A	A	B	A	B	A	A	D	A	A	D	C	B	A

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Formic Acid6	A	B	D	C	A	C	C	D	A	A	A	A	B	D	A	B
Freon 11[1]	*	A	B	*	*	B	*	B	A	D	*	A	B	C	D	A
Freon 12 (wet)[2]	*	D	B	*	*	B	*	B	A	D	A	A	A	A	B	A
Freon 22	*	A	B	*	*	B	*	D	*	B	*	A	D	D	A	A
Freon 113	*	A	B	*	*	B	*	C	*	*	*	A	C	A	*	A
Freon T.F.[4]	*	A	B	*	*	B	*	B	*	D	D	A	B	A	D	A
Fruit Juice	A	A	B	*	*	B	*	A	D	A	A	*	A	A	*	A
Fuel Oils	A	A	A	A	A	B	*	A	A	A	B	A	A	A	D	A
Furan Resin	A	A	A	*	*	A	*	*	A	*	*	A	A	D	*	A
Furfural[1]	A	A	A	*	B	A	*	D	A	D	D	A	D	D	B	A
G																
Gallic Acid	A	A	A	*	A	A	*	A	A	*	*	*	B	A	*	*
Gasoline[1 4]	A	A	A	D	A	A	*	C	A	D	C	A	A	A	C	A
Gelatin	A	A	A	*	A	A	C	A	A	A	A	*	A	A	A	A
Glucose	*	A	A	*	*	A	A	A	A	B	A	*	A	A	A	A
Glue P.V.A.[1]	B	A	B	A	*	A	*	A	A	*	*	*	A	A	*	A
Glycerine	A	A	A	A	A	A	B	A	A	A	A	*	A	A	A	A
Glycolic Acid	*	*	*	*	A	*	*	*	*	A	A	A	A	A	*	A
Gold Monocyanide	*	A	*	*	*	A	*	*	*	*	*	*	A	A	*	A
Grape Juice	A	A	B	*	*	B	*	A	*	A	*	*	A	A	*	A
Grease[4]	A	A	A	*	*	B	*	*	A	*	*	*	A	A	*	A
H																
Heptane[1]	*	A	A	*	A	A	*	A	A	D	D	A	A	A	D	A
Hexane[1]	A	A	A	*	A	B	*	C	A	D	C	A	A	A	D	A
Honey	A	A	A	*	*	A	*	A	*	A	A	*	A	A	A	A
Hydraulic Oils (Petroleum)[1]	A	A	A	*	*	B	*	*	A	*	D	*	A	A	D	A
Hydraulic Oils (Synthetic)[1]	A	A	A	*	*	A	*	*	*	*	D	*	A	C	*	A
Hydrazine	A	A	*	*	*	*	*	*	*	*	*	*	A	B	A	A
Hydrobromic Acid 20%	*	D	*	A	A	*	*	A	A	A	A	*	A	D	*	B
Hydrobromic Acid[4]	D	D	D	A	A	D	*	A	A	C	B	*	A	D	A	A
Hydrochloric Acid (Dry Gas)	C	A	D	*	A	*	*	A	A	*	*	*	*	*	A	A
Hydrochloric Acid 20%[4]	D	D	D	C	B	D	*	A	A	A	A	D	A	C	A	A
Hydrochloric Acid 37%[4]	D	D	D	C	B	D	*	A	A	A	A	D	A	C	C	A
Hydrochloric Acid 100%	D	D	D	D	C	D	*	A	A	*	*	*	C	D	*	A
Hydrocyanic Acid	A	A	A	A	A	D	D	A	A	A	A	*	A	C	*	A
Hydrocyanic Acid (Gas 10%)	D	D	*	*	*	*	*	A	A	*	*	*	*	*	A	A
Hydrofluoric Acid 20%[1]	D	D	D	D	B	D	*	D	A	A	A	C	A	D	A	B
Hydrofluoric Acid 75%[1 2]	C	D	D	D	C	D	*	C	A	D	B	C	A	D	C	C
Hydrofluoric Acid 100%	D	D	D	D	B	D	*	C	A	*	*	C	*	D	*	A
Hydrofluosilicic Acid 20%	D	D	D	D	B	A	*	D	A	B	A	*	A	B	A	C
Hydrofluosilicic Acid	D	D	C	*	C	D	*	*	A	*	*	*	*	*	*	*
Hydrogen Gas	A	A	A	*	*	A	*	A	A	*	*	*	A	*	*	A

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
Hydrogen Peroxide 10%	C	C	A	C	A	D	D	A	A	*	*	B	*	A	*	D
Hydrogen Peroxide 30%	*	B	*	B	A	*	D	A	A	*	A	C	A	D	*	B
Hydrogen Peroxide	A	B	A	B	A	D	D	A	A	B	A	C	A	D	C	A
Hydrogen Sulfide, Aqueous Solution	D	A	C	A	A	D	C	A	A	A	A	A	D	C	A	A
Hydrogen Sulfide (dry)	C	A	D	*	A	D	C	A	A	*	*	A	D	*	*	A
Hydroxyacetic Acid (70%)	*	*	D	B	*	*	*	A	*	*	*	*	A	A	A	A
I																
Ink	A	A	C	*	*	C	*	*	*	B	*	*	A	A	*	A
Iodine	D	D	D	A	B	D	*	D	A	A	D	*	A	B	B	A
Iodine (in Alcohol)	*	B	*	D	A	*	*	D	A	C	B	*	A	D	*	*
Iodoform	C	A	A	*	*	C	*	*	A	*	*	*	A	*	*	*
Isotane[2]	*	*	A	*	*	*	*	*	*	D	D	*	A	A	*	A
Isopropyl Acetate	*	B	C	*	*	*	*	*	*	*	*	*	D	D	B	A
Isopropyl Ether[2]	*	A	A	*	*	A	*	*	A	D	D	*	D	B	D	*
J																
Jet Fuel (JP#, JP4, JP5)	A	A	A	*	*	A	*	A	A	D	D	A	A	A	D	A
K																
Kerosene[2]	A	A	A	A	A	A	A	A	A	D	D	A	A	A	A	A
Ketones	A	A	B	A	A	A	*	D	A	D	D	A	D	D	D	C
L																
Lacquers	A	A	A	*	*	A	C	*	*	C	A	*	D	D	*	A
Lacquer Thinners	*	A	*	A	A	*	C	C	A	D	B	*	*	D	A	*
Lactic Acid	A	B	C	A	A	D	*	A	A	A	A	A	B	B	B	A
Lard	A	A	A	*	*	A	*	A	*	*	A	*	A	A	*	A
Latex	A	A	A	*	*	A	*	*	*	A	*	*	A	A	A	A
Lead Acetate	A	A	D	A	A	C	*	A	A	A	A	*	D	B	A	A
Lead Sulfamate	*	*	*	*	*	*	*	*	*	*	A	*	A	B	D	A
Ligroin[3]	*	A	*	*	*	A	*	*	*	D	D	*	A	A	A	A
Lime	A	A	C	A	*	A	*	A	*	A	*	*	A	A	D	A
Lubricants	A	A	A	A	A	B	*	A	A	*	A	A	A	A	*	A
M																
Magnesium Carbonate	A	A	*	*	B	*	*	A	*	A	A	*	*	A	A	A
Magnesium Chloride	B	B	D	A	A	B	C	A	A	A	A	A	A	A	A	A
Magnesium Hydroxide	A	A	D	A	A	C	B	A	A	A	A	A	A	B	*	A
Magnesium Nitrate	A	A	*	A	A	*	*	A	A	A	A	*	A	A	*	A
Magnesium Oxide	A	A	*	*	*	*	*	*	*	*	*	*	*	A	A	A
Magnesium Sulfate	B	A	B	A	B	B	B	A	A	A	A	A	A	A	D	A
Maleic Acid	A	A	B	A	A	C	*	A	A	A	C	*	A	D	D	A
Maleic Anhydride	*	*	*	*	A	*	*	*	*	*	*	*	A	D	*	A
Malic Acid	A	A	C	*	A	D	*	A	A	*	*	*	B	*	*	*
Mash	A	A	*	*	*	A	*	*	*	A	*	*	*	A	*	A
Mayonnaise	A	A	D	*	*	D	*	*	A	A	A	*	A	A	*	A
Melamine	D	D	*	*	*	D	*	*	*	*	*	*	*	C	*	A
Mercurie Chloride (Dilute Solution)	D	D	D	A	B	D	D	A	A	A	A	*	A	A	A	A
Mercuric Cyanide	A	A	D	A	*	D	*	A	A	A	A	*	*	A	*	A

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
Mercury	A	A	C	C	A	D	D	A	A	A	A	*	A	A	A	A
Methanol (See Alcohol Methyl)																
Methyl Acetate	*	A	A	*	A	A	*	*	A	*	*	*	D	D	B	*
Methyl Acrylate	*	*	*	*	*	*	*	*	*	*	*	*	D	D	B	A
Methyl Acetone	*	A	A	*	*	A	*	*	A	D	*	*	D	D	*	C
Methyl Alcohol 10%	*	A	C	*	A	C	*	A	A	*	*	*	*	B	*	A
Methyl Bromide	*	*	*	*	*	*	*	*	*	*	*	*	A	B	D	B
Methyl Butyl Ketone	*	A	A	*	*	*	*	*	*	D	*	*	D	D	A	B
Methyl Cellosolve	*	*	A	*	*	A	*	*	*	C	A	*	D	D	B	C
Methyl Chloride	A	A	D	A	A	A	*	D	A	D	D	*	A	D	C	A
Methyl Dichloride	*	*	*	*	*	*	*	*	*	D	*	*	A	D	D	A
Methyl Ethyl Ketone	A	A	A	A	A	A	*	D	A	D	A	A	D	D	A	B
Methyl Isobutyl Ketone[2]	*	A	*	A	A	*	*	D	A	D	C	A	D	D	C	B
Methyl Isopropyl Ketone	*	A	*	*	*	*	*	*	*	D	*	*	D	D	B	B
Methyl Methacrylate	*	*	*	*	*	*	*	*	*	*	*	*	D	D	D	A
Methylamine	*	A	A	*	*	D	*	*	*	B	*	*	*	B	*	A
Methylene Chloride	A	A	A	A	A	A	C	D	A	D	D	*	D	D	D	A
Milk	A	A	A	*	*	C	C	A	*	A	A	*	A	A	A	A
Molasses	A	A	A	*	*	A	B	A	*	B	A	*	A	A	*	A
Mustard	A	A	B	*	*	B	*	A	*	B	A	*	A	B	*	A
Molasses	A	A	B	*	*	B	*	*	*	*	A	*	A	A	C	A
Mustard	A	A	B	*	*	B	*	A	A	*	A	A	A	A	C	A
N																
Naptha	A	A	A	A	A	B	*	A	A	D	A	A	A	B	D	A
Napthalene	A	B	B	A	A	C	*	D	A	D	B	A	B	D	D	A
Nickel Chloride	A	B	D	A	A	D	*	A	A	A	A	*	A	A	A	A
Nickel Sulfate	A	B	D	A	B	C	C	A	A	A	A	*	A	A	A	A
Nitric Acid (10% Solution)	A	A	D	A	A	D	*	A	A	A	A	D	A	D	B	A
Nitric Acid (20% Solution)	A	A	D	A	A	D	*	A	A	A	A	C	A	D	D	B
Nitric Acid (50% Solution)	A	A	D	A	A	D	*	A	A	A	D	C	A	D	D	D
Nitric Acid (Concentrated Solution)	D	B	B	A	B	D	D	D	A	D	D	C	B	D	D	D
Nitrobenzene[2]	A	B	C	A	B	D	*	D	A	D	C	B	D	D	D	B
O																
Oils																
Aniline	A	A	C	A	D	A	*	D	A	D	A	*	A	D	B	A
Anise	A	A	*	*	*	*	*	*	*	*	*	*	*	*	*	A
Bay	A	A	*	*	*	*	*	*	*	*	*	*	A	*	*	A
Bone	A	A	*	*	*	A	*	*	*	*	*	*	A	A	*	A
Castor	A	A	A	*	*	A	*	A	*	*	*	*	A	A	B	A
Cinnamon	A	A	*	*	*	*	*	*	A	*	A	*	D	*	*	A
Citric	A	A	*	*	*	D	*	*	*	*	A	*	A	A	*	A
Clove	A	A	*	*	*	*	*	*	*	*	B	*	*	A	*	A
Coconut	A	A	B	*	*	A	*	*	*	*	A	*	A	A	A	A
Cod Liver	A	A	B	*	*	*	*	*	*	*	A	*	A	A	A	A

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
Corn	A	A	B	*	*	B	*	*	*	*	A	*	A	A	C	A
Cotton Seed	A	A	B	*	*	B	*	A	A	*	A	A	A	A	C	A
Cresote[2]	A	A	A	*	*	*	*	*	*	*	D	*	A	A	D	A
Diesel Fuel (2D, 3D, 4D, 5D)	A	A	A	*	*	A	*	*	*	D	A	A	A	A	D	A
Fuel (1,2,3,5A, 5B, 6)	A	A	A	A	A	A	*	A	A	D	B	*	A	B	D	A
Oils (Cont.) Ginger	A	A	*	*	*	*	*	*	*	*	*	*	A	A	*	A
Hydraulic (See Hydraulic)																
Lemon	A	A	*	*	*	*	*	*	*	*	D	*	A	*	*	A
Linseed	A	A	A	*	*	A	*	A	*	*	A	*	A	A	D	A
Mineral	A	A	A	*	*	A	*	A	*	B	B	A	A	A	D	A
Olive	A	A	A	*	*	B	*	A	A	*	A	*	A	A	*	A
Orange	A	A	*	*	*	*	*	*	A	*	A	*	A	A	*	A
Palm	A	A	A	*	*	B	*	A	*	*	*	*	A	A	*	A
Peanut[3]	A	A	A	*	*	A	*	A	*	*	D	*	A	A	*	A
Peppermint[2]	A	A	*	*	*	A	*	*	*	*	D	*	A	D	*	A
Pine	A	A	A	*	*	D	*	A	A	*	*	*	A	A	*	A
Rape Seed	A	A	*	*	*	A	*	A	*	*	*	*	A	B	*	A
Rosin	A	A	A	*	*	*	*	*	*	*	A	*	A	A	*	A
Sesame Seed	A	A	A	*	*	A	*	A	*	*	*	*	A	A	*	A
Silicone	A	A	*	*	*	A	*	*	*	A	A	*	A	A	*	A
Soybean	A	A	A	*	*	B	*	A	*	*	A	*	A	A	*	A
Sperm	A	A	*	*	*	A	*	A	*	*	*	*	A	A	*	A
Tanning	A	A	*	*	*	*	*	*	*	*	*	*	A	A	*	A
Turbine	A	A	A	*	*	A	*	A	*	*	*	*	A	A	*	A
Oleic Acid	A	A	B	*	B	B	C	A	A	C	C	*	D	B	D	A
Oleum 25%	*	*	*	*	A	*	*	D	A	D	*	*	A	D	D	D
Oleum	*	A	B	*	*	C	C	D	A	*	D	*	A	C	D	A
Oxalic Acid (Cold)	A	B	C	C	B	B	C	A	A	C	A	*	A	B	A	A
P																
Paraffin	A	A	A	*	*	A	*	A	A	B	A	*	A	A	*	A
Pentane	C	C	A	*	B	A	*	*	A	D	*	*	A	A	D	A
Perchloroethylene[2]	A	A	A	*	*	C	*	*	A	D	D	A	A	C	D	A
Petrolatum	*	A	B	*	*	B	*	*	A	D	*	*	A	A	A	A
Phenol 10%	A	A	A	*	B	C	*	A	A	*	*	A	B	D	D	C
Phenol (Carbolic Acid)	A	A	B	C	A	B	D	A	A	C	B	A	A	D	D	B
Phosphoric Acid (to 40% Solution)	B	A	D	A	A	D	D	A	A	A	A	A	A	D	B	A
Phsophoric Acid (40-100% Solution)	C	B	D	B	A	D	D	A	A	A	A	A	A	D	B	C
Phosphoric Acid (Crude)	D	C	D	C	A	D	D	*	A	*	*	A	A	D	B	A
Phosphoric Anhydride (Dry or Moist)	A	A	*	*	*	*	D	D	A	*	*	*	D	D	*	*
Phsphoric Anhydride (Molten)	A	A	D	*	*	D	D	D	A	*	*	*	D	C	*	A
Photographic (Developer)	C	A	C	A	A	*	*	A	*	A	A	*	A	A	*	A
Phthalic Anhydride	A	B	B	*	A	B	*	*	A	*	*	*	A	C	*	*
Picric Acid	A	A	C	*	A	D	D	A	A	*	*	*	A	A	*	A
Plating Solutions Antimony Plating 130°F	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	B

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
Arsenic Plating 110°F	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	B
Brass Plating Regular Brass Bath 100°F	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	B
High Speed Brass Bath 110°F	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	B
Bronze Plating Copper-Cadmium Bronze Bath R.T.	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	B
Copper-Tin Bronze Bath 160°F	*	A	*	A	A	*	*	D	A	A	A	*	A	A	*	C
Platings (Cont.) Copper-Zinc Bronze Bath 100°F	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	B
Cadmium Plating Cyanide Bath 90°F	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	B
Fluoborate Bath 100°F	*	A	*	D	A	*	*	A	A	A	A	*	A	B	*	B
Chromium Plating Chromic-Sulfuric Bath 130°F	*	C	*	A	A	*	*	A	A	D	A	*	C	D	*	D
Fluosilicate Bath 95°F	*	C	*	C	A	*	*	A	A	D	A	*	C	D	*	D
Fluoride Bath 130°F	*	D	*	C	A	*	*	A	A	D	A	*	C	D	*	D
Black Chrome Bath 115°F	*	C	*	A	A	*	*	A	A	D	A	*	C	D	*	D
Barrel Chrome Bath 95°F	*	D	*	C	A	*	*	A	A	D	A	*	C	D	*	D
Copper Plating (Cyanide) Copper Strike Bath 120°F	A	A	*	*	*	*	*	*	*	*	*	*				
Rochelle Salt Bath 150°F	*	A	*	A	A	*	*	D	A	A	A	*	A	A	*	C
High Speed Bath 180°F	*	A	*	A	A	*	*	D	A	A	A	*	A	A	*	C
Copper Plating (Acid) Copper Sulfate Bath R.T.	*	D	*	A	A	*	*	A	A	A	A	*	A	A	*	D
Copper Fluoborate Bath 120°F	*	D	*	D	A	*	*	A	A	A	A	*	A	B	*	D
Copper (Misc.) Copper Pyrophosphate 140°F	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	B
Copper (Electroless) 140°F	*	*	*	*	*	D	*	A	A	A	A	*	A	D	*	B
Gold Plating Cyanide 150°F	*	A	*	A	A	C	*	D	A	A	A	*	A	A	*	D
Neutral 75°F	*	C	*	A	A	*	*	A	A	A	A	*	A	A	*	A
Acid 75°F	*	C	*	A	A	*	*	A	A	A	A	*	A	A	*	A
Indium Sulfamate Plating R.T.	*	C	*	A	A	*	*	A	A	A	A	*	A	A	*	A
Iron Plating Ferrous Chloride Bath 190°F	*	D	*	A	D	*	*	D	A	A	C	*	A	B	*	D
Ferrous Sulfate Bath 150°F	*	C	*	A	A	*	*	D	A	A	A	*	A	A	*	D
Ferrous Am. Sulfate Bath 150°F	*	C	*	A	A	*	*	D	A	A	A	*	A	A	*	D
Sulfate-Chloride Bath 160°F	*	D	*	A	D	*	*	D	A	A	A	*	A	B	*	D
Fluoborate Bath 145°F	*	D	*	D	B	*	*	D	A	A	A	*	A	B	*	D
Sulfamate 140°F	*	D	*	A	B	*	*	A	A	A	A	*	A	A	*	A
Lead Fluoborate Plating	*	C	*	D	A	*	*	A	A	A	A	*	A	B	*	A
Nickel Plating Watts Type 115-160°F	*	C	*	A	A	*	*	D	A	A	A	*	A	A	*	D
High Chloride 130-160°F	*	C	*	A	A	*	*	D	A	A	A	*	A	A	*	D
Fluoborate 100-170°F	*	C	*	D	A	D	*	D	A	A	A	*	A	B	*	D
Sulfamate 100-140°F	*	C	*	A	A	*	*	A	A	A	A	*	A	A	*	A
Electroless 200°F	*	*	*	*	*	*	*	D	A	D	D	*	A	D	*	B
Rhodium Plating 120°F	*	D	*	D	D	*	*	A	A	A	A	*	A	A	*	A

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
Silver Plating 80-120°F	*	A	*	A	A	*	*	A	A	A	A	*	A	A	*	A
Tin-Fluoborate Plating 100°F	*	C	*	D	A	*	*	A	A	A	A	*	A	B	*	A
Tine-Lead Plating 100°F	*	C	*	D	A	*	*	A	A	A	A	*	A	B	*	A
Zinc Plating Acid Chloride 140°F	*	D	*	A	D	*	*	A	A	A	A	*	A	A	*	A
Acid Sulfate Bath 150°F	*	C	*	A	A	*	*	D	A	A	A	*	A	A	*	D
Platings (Cont'd) Acid Fluoborate Bath R.T.	*	*	*	D	*	*	*	A	A	A	A	*	A	B	*	A
Alkaline Cyanide Bath R.T.	*	*	*	A	A	*	*	A	A	A	A	*	A	A	*	A
Potash	A	*	C	*	A	C	*	A	*	A	A	*	A	A	*	A
Potassium Bicarbonate	A	*	C	A	B	B	*	A	A	A	A	A	A	A	*	A
Potassium Bromide	A	*	C	A	B	C	*	A	A	A	A	C	A	A	A	A
Potassium Carbonate	A	*	C	A	A	C	*	A	A	A	A	A	A	B	*	A
Potassium Chlorate	A	A	B	A	B	B	*	A	A	A	A	A	A	A	*	A
Potassium Chloride	A	A	B	A	A	C	C	A	A	A	A	A	A	A	A	A
Potassium Chromate	*	B	A	*	B	A	*	A	*	A	*	A	A	A	*	C
Potassium Cyanide Solutions	A	B	D	A	A	D	*	A	A	A	A	A	B	A	A	A
Potassium Dichromate	A	A	A	A	B	C	*	A	A	A	A	A	B	A	A	A
Potassium Ferrocyanide	A	*	C	*	B	A	*	A	A	*	*	*	*	D	*	A
Potassium Hydroxide (50%)	B	B	D	C	A	D	D	A	A	A	A	A	D	B	A	A
Potassium Nitrate	A	B	B	A	B	B	*	A	A	A	A	C	B	A	A	A
Potassium Permanganate	A	B	B	B	B	B	*	A	A	A	B	A	B	A	*	B
Potassium Sulfate	A	B	A	A	A	B	B	A	A	A	A	A	A	A	A	A
Potassium Sulfide	A	*	B	*	B	B	*	A	A	*	*	*	*	A	*	*
Propane (Liquified)[1 2]	A	*	A	*	*	A	A	D	A	D	D	*	A	A	D	A
Propylene Glycol	B	*	A	*	*	B	*	*	A	*	*	*	A	A	*	A
Pyridine	C	*	B	*	*	*	*	*	A	D	B	A	D	D	B	A
Pyrogallic Acid	A	A	B	*	A	B	*	A	A	*	*	*	A	A	*	A
Electroless 200°F	A	B	D	A	A	C	D	A	A	A	A	B	D	D	*	A
Rhodium Plating 120°F	A	D	D	A	B	C	D	A	A	A	A	B	B	D	*	A
Silver Plating 80-120°F	C	C	C	A	A	D	D	A	A	A	D	C	A	C	B	B
Tin-Fluorobate Plating	*	A	D	A	A	D	*	A	A	A	A	C	B	B	*	A
100°F	A	A	D	*	*	D	*	*	A	*	*	*	*	*	*	C
Tin-Lead Plating 100°F	*	A	A	*	*	C	C	*	A	*	D	*	A	A	A	A
Zinc Plating	*	A	B	*	*	B	*	*	A	*	*	*	A	A	*	A
Acid Chloride 140°F	A	A	A	A	B	B	C	A	A	A	A	*	D	C	A	A
Acid Sulfate Bath 150°F	*	C	B	*	*	C	C	*	A	A	A	*	A	B	A	A
Acid Fluorobate Bath R T	A	A	C	*	B	C	C	A	A	*	*	*	A	C	A	A
Alkaline Cyanide Bath R T	A	A	D	A	A	C	*	*	A	A	*	*	A	A	A	A
Potash	A	B	C	A	B	C	C	A	A	A	A	*	A	A	A	A
Potassium Bicarbonate	A	A	B	A	B	B	B	A	A	A	A	A	A	A	A	A
Potassium Bromide	A	B	D	A	B	D	D	A	A	A	A	A	A	C	A	A
Potassium Carbonate	C	C	C	A	A	C	*	A	A	*	*	*	A	A	*	A
Potassium Chlorate	*	A	*	*	*	*	*	A	*	A	*	*	A	A	*	A
Potassium Chloride	A	A	B	A	*	D	D	A	A	A	A	A	A	B	A	A
Potassium Chromate	A	A	*	*	*	*	*	*	*	*	*	*	A	A	*	A
Potassium Cyanide	A	A	A	*	*	A	*	*	*	A	*	*	A	A	*	A
Solutions	D	D	D	A	B	D	*	A	A	A	A	*	A	A	A	A
Potassium Dichromate	*	A	*	*	*	*	*	*	*	A	*	*	A	A	*	A
Potassium Ferrocyanide	D	C	D	A	A	D	*	A	A	*	*	*	B	C	*	A
Potassium Hydroxide	A	A	A	*	*	B	*	A	A	A	*	*	A	A	*	A
(50%)	A	A	B	A	A	C	C	A	A	A	D	*	A	B	B	A
Potassium Nitrate	A	A	A	A	A	A	A	A	A	D	D	A	A	B	D	A
Potassium Permanganate	A	A	A	*	*	A	*	*	A	A	*	*	B	D	D	A
Potassium Sulfate	A	A	A	*	A	A	*	*	A	A	A	*	A	A	*	A
Potassium Sulfide	C	C	B	*	A	C	*	*	*	*	A	*	*	*	*	A
Propane (Liquified)	D	D	D	*	*	C	D	A	A	A	D	*	A	D	D	C
Propylene Glycol	A	A	A	A	B	B	*	D	A	D	D	A	D	D	A	A
Pyridine	A	A	A	*	A	A	C	D	A	*	*	*	D	*	*	D
Pyrogallic Acid	A	C	A	*	*	B	*	A	A	D	*	*	A	D	B	A
R																
Rosins	A	A	A	*	B	A	C	*	A	*	A	*	*	A	*	A
Rum	A	*	*	*	*	*	*	A	*	A	A	*	A	A	*	A
Rust Inhibitors	A	*	*	*	*	A	*	*	*	*	A	*	A	A	*	A
S																
Salad Dressing	A	*	B	*	*	B	*	A	*	A	A	*	A	A	*	A
Sea Water	A	C	C	A	*	C	*	A	A	A	A	*	A	A	A	A
Shellac (Bleached)	A	*	A	*	*	A	B	*	A	*	A	*	*	A	*	A
Shellac (Orange)	A	*	A	*	*	A	C	*	A	*	A	*	*	A	*	A
Silicone	B	*	B	*	*	A	*	*	*	A	A	*	A	A	A	A
Silver Bromide	C	C	D	*	*	*	*	*	*	A	*	*	*	*	*	A
Silver Nitrate	A	B	D	A	A	D	*	A	A	A	A	*	A	C	C	A
Soap Solutions	A	A	C	A	B	B	B	B	A	A	A	A	A	B	C	*
Soda Ash (See Sodium Carbonate)																
Sodium Acetate	A	A	B	A	A	B	*	A	A	A	A	*	D	D	*	A
Sodium Aluminate	*	*	C	B	B	B	*	*	A	A	*	A	A	A	A	A
Sodium Bicarbonate	A	A	A	A	*	B	A	A	A	A	A	A	A	A	A	A
Sodium Bisulfate	A	*	D	B	B	C	C	A	A	A	A	A	B	A	*	A
Sodium Bisulfate	A	*	A	A	B	C	*	A	A	A	A	A	A	A	*	A
Sodium Borate	A	*	C	*	A	A	*	C	A	*	*	*	A	*	*	*
Sodium Carbonate	A	B	C	A	A	B	B	A	A	A	A	A	A	A	A	A
Sodium Chlorate	A	*	B	A	B	B	*	A	A	A	A	A	A	D	*	A
Sodium Chloride	A	C	C	A	A	B	C	A	A	A	A	A	A	A	A	A
Sodium Chromate	A	A	D	*	B	B	*	*	A	A	A	A	B	A	*	C
Sodium Cyanide	A	*	D	A	*	D	D	A	A	A	A	A	A	A	A	A
Sodium Fluoride	C	*	C	A	A	C	*	D	A	*	*	*	B	D	*	A
Sodium Hydrosulfite	*	*	A	*	A	C	*	C	A	*	*	*	A	*	*	*
Sodium Hydroxide (20%)	A	A	D	A	A	C	D	A	A	A	A	A	A	A	A	A
Sodium Hydroxide (50% Solution)	A	B	D	A	A	C	D	A	A	A	A	B	D	D	*	A
Sodium Hydroxide (80% Solution)	A	D	D	A	B	C	D	A	A	A	A	B	B	D	*	A

	304 STAINLESS STEEL	316 STAINLESS STEEL	ALUMINUM	TITANIUM	HASTELLOY C	BRONZE	BRASS	PVC (TYPE 1)	TEFLON	NORYL	POLYPRPYLENE	FORTRON	VITON	BUNA N	ETHYLENE PROPYLENE	EPOXY
Sodium Hypochlorite (to 20%)	C	C	C	A	A	D	D	A	A	A	D	C	A	C	B	B
Sodium Hypochlorite	*	A	D	A	A	D	*	A	A	A	A	C	B	B	*	A
Sodium Hyposulfate	A	A	D	*	*	D	*	*	A	*	*	*	*	*	*	C
Sodium Metaphosphate2	*	A	A	*	*	C	C	*	A	*	D	*	A	A	A	A
Sodium Metasilicate	*	A	B	*	*	B	*	*	A	*	*	*	A	A	*	A
Sodium Nitrate	A	A	A	A	B	B	C	A	A	A	A	*	D	C	A	A
Sodium Perborate	*	C	B	*	*	C	C	*	A	A	A	*	A	B	A	A
Sodium Peroxide	A	A	C	*	B	C	C	A	A	*	*	*	A	C	A	A
Sodium Polyphosphate (Mono, Di, Tribasic)	A	A	D	A	A	C	*	*	A	A	*	*	A	A	A	A
Sodium Silicate	A	B	C	A	B	C	C	A	A	A	A	*	A	A	A	A
Sodium Sulfate	A	A	B	A	B	B	B	A	A	A	A	A	A	A	A	A
Sodium Sulfide	A	B	D	A	B	D	D	A	A	A	A	A	A	C	A	A
Sodium Sulfide	C	C	C	A	A	C	*	A	A	*	*	*	A	A	*	A
Sodium Tetraborate	*	A	*	*	*	*	*	A	*	A	*	*	A	A	*	A
Sodium Thiosulphate ("Hypo")	A	A	B	A	*	D	D	A	A	A	A	A	A	B	A	A
Sorghum	A	A	*	*	*	*	*	*	*	*	*	*	A	A	*	A
Soy Sauce	A	A	A	*	*	A	*	*	*	A	*	*	A	A	*	A
Stannic Chloride	D	D	D	A	B	D	*	A	A	A	A	*	A	A	A	A
Stannic Fluoborate	*	A	*	*	*	*	*	*	*	A	*	*	A	A	*	A
Stannous Chloride	D	C	D	A	A	D	*	A	A	*	*	*	B	C	*	A
Starch	A	A	A	*	*	B	*	A	A	A	*	*	A	A	*	A
Stearic Acid[2]	A	A	B	A	A	C	C	A	A	A	D	*	A	B	B	A
Stoddard Solvent	A	A	A	A	A	A	A	A	A	D	D	A	A	B	D	A
Styrene	A	A	A	*	*	A	*	*	A	A	*	*	B	D	D	A
Sugar (Liquids)	A	A	A	*	A	A	*	*	A	A	A	*	A	A	*	A
Sulfate Liquors	C	C	B	*	A	C	*	*	*	*	A	*	*	*	*	A
Sulfur Chloride	D	D	D	*	*	C	D	A	A	A	D	*	A	D	D	C
Sulfur Dioxide[2]	A	A	A	A	B	B	*	D	A	D	D	A	D	D	A	A
Sulfur Dioxide (dry)	A	A	A	*	A	A	C	D	A	*	*	*	D	*	*	D
Sulfur Trioxide (dry)	A	C	A	*	*	B	*	A	A	D	*	*	A	D	B	A
Sulfuric Acid (to 10%)	D	C	*	*	A	*	D	A	*	A	A	A	A	*	*	*
Sulfuric Acid 10%-75%[2]	D	D	*	*	B	*	D	A	*	B	A	B	A	*	*	B
Sulfuric Acid 75%-100%	*	D	*	*	B	*	D	B	*	A	B	C	A	*	*	*
Sulfurous Acid	C	B	*	*	B	*	*	A	*	A	A	*	A	*	B	*
Sulfuryl Chloride	*	*	*	*	*	*	*	A	*	*	*	*	*	*	*	*
Syrup	A	A	*	*	*	*	*	A	*	A	A	*	A	*	*	*
T																
Tallow	A	A	A	*	*	*	*	*	*	A	*	*	A	A	*	A
Tannic Acid	A	A	C	A	B	B	*	A	A	A	A	*	A	D	A	A
Tanning Liquors	A	A	C	A	A	A	*	A	A	*	A	*	A	C	*	A
Tartaric Acid	A	B	C	A	B	A	C	A	A	A	A	*	A	D	*	A
Tetrachlorethane	*	A	*	A	A	*	*	D	A	D	A	*	A	D	D	A
Tetrahydrofuran	A	A	D	*	*	D	*	D	A	D	C	A	D	D	B	A
Toluene, Toluol[3]	A	A	A	A	A	A	A	D	A	D	D	A	C	D	D	A
Tomato Juice	A	A	A	*	*	C	*	*	A	A	A	A	A	A	*	A
Trichlorethane	C	A	C	A	A	C	*	*	A	D	*	*	A	D	D	A
Trichlorethylene[2]	A	A	B	A	A	B	A	D	A	D	D	C	A	D	D	A
Trichloropropane	*	A	*	*	*	A	*	*	*	D	*	*	A	A	*	A
Tricresylphosphate	*	A	*	B	A	A	*	D	A	A	*	*	B	D	A	A
Triethylamine	*	*	*	*	*	A	*	A	*	B	*	*	A	A	*	A
Turpentine[3]	A	A	C	*	A	B	C	A	A	D	B	A	A	D	D	A
U																
Urine	A	A	B	*	*	C	*	A	*	A	A	*	A	A	A	A
V																
Vegetable Juice	A	A	A	*	*	C	*	*	*	A	*	*	A	A	*	A
Vinegar	A	A	D	A	A	B	B	A	A	A	C	*	A	*	*	*
Varnish (Use Viton for Aromatic)	A	A	A	*	*	A	B	*	A	D	A	*	A	B	*	A
W																
Water, Acid, Mine	A	A	C	*	*	C	D	A	*	A	A	B	A	A	*	A
Water, Distilled, Lab Grade 7	A	A	B	*	*	A	*	A	A	A	A	A	A	A	A	A
Water, Fresh	A	A	A	*	*	A	C	A	A	A	A	A	A	A	A	A
Water, Salt	A	A	B	*	*	B	C	A	*	A	A	A	A	A	A	A
Weed Killers	A	A	C	*	*	C	*	*	*	*	*	*	A	B	*	A
Whey	A	A	B	*	*	*	*	*	*	*	*	*	A	A	*	A
Whiskey & Wines	A	A	D	*	*	B	B	A	A	A	A	*	A	A	A	A
White Liquor (Pulp Mill)	A	A	*	*	A	D	*	A	A	A	A	*	A	A	*	A
White Water (Paper Mill)	A	A	*	*	*	A	*	*	*	*	A	*	A	*	*	A
X																
Xylene[2]	A	A	A	*	A	A	A	D	A	D	D	A	A	D	D	A
Z																
Zinc Chloride	D	B	D	A	B	D	D	A	A	A	A	A	A	A	A	A
Zinc Hydrosulphite	*	A	D	*	*	D	*	*	*	A	*	A	*	A	A	A
Zinc Sulfate	A	A	D	A	B	B	C	C	A	A	A	A	A	A	A	A