



**CHEMICAL COMPATIBILITY GUIDE**  
**For**  
**GPI FLOW METERS**

Chemical compatibility information provided in this document is intended to assist users in selecting the proper GPI equipment for a particular chemical application. The information is derived from a variety of sources, including technical publications, raw material suppliers, and laboratory and field testing. Most ratings are based on a 48 hour "soak test" at 72° F (22° C) and do not take into consideration the unlimited variations in physical properties that can affect a material's chemical resistance. **Under no conditions should the information be construed as a guarantee.** Before permanent installation, test the equipment with the chemical under the specific conditions of your application.

Although chemical compatibility information on beverages and liquid food products is provided, **please note that only those GPI products with a 3A rating are approved to handle fluids intended for human consumption.**

	Metals										Plastics					Journals, Shafts			O-Rings					
	Bronze	Aluminum	Brass	304 SS	316 SS	CD4MCu	PVC	PBT Polyester (Valox)	Nylon 6,6	Acetal (Delrin)	PPS (Ryton)	PVDF (Kynar)	Rulon 641	PEEK	Carbon - Graphite	Ceramic / Sapphire	Tungsten Carbide	Ferrite (MnZn)	Hastelloy-C	Viton	PTFE (Teflon)	EPDM	Buna-N (Nitrile)	Perfluoroelastomer (FFKM)
<b>CHEMICAL COMPATIBILITY GUIDE</b> <b>For</b> <b>GPI FLOW METERS</b>																								
R = Recommended																								
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Acetaldehyde	R	R	R	R	R	R	N	X	R	R	R	N	R	R	R	R	R	X	R	N	R	R	N	R
Acetamide	N	R	X	R	R	X	N	X	R	R	R	N	R	X	R	R	X	X	X	R	R	R	R	R
Acetate Solvent	N	R	R	R	R	R	N	X	X	X	R	R	R	R	R	R	R	X	R	N	R	R	N	R
Acetic Acid	N	R	N	N	R	R	N	X	N	N	R	N	R	R	R	R	R	N	X	R	R	R	N	R
Acetic Acid 20%	N	R	N	R	R	R	N	R	N	N	R	R	R	R	R	R	R	N	R	R	R	R	R	R
Acetic Acid 80%	N	R	N	N	R	R	N	R	N	N	R	N	R	R	R	R	R	N	R	R	R	R	R	N
Acetic Acid, Glacial	N	R	X	N	R	R	N	X	N	N	R	R	R	R	R	R	R	N	R	R	N	R	R	N
Acetic Anhydride	N	R	N	R	R	R	N	X	N	N	R	R	R	N	R	R	R	X	R	N	R	R	N	R

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Acetone	R	R	R	R	R	R	N	N	R	R	R	N	R	R	R	R	R	R	N	R	R	X	X	R
Acetyl Bromide	X	X	X	X	X	X	N	X	X	X	X	X	R	X	X	X	X	X	X	R	X	X	R	R
Acetyl Chloride (dry)	X	N	N	R	R	R	N	X	X	N	R	R	R	X	X	R	R	X	R	R	R	N	N	R
Acetylene	N	R	R	R	R	X	R	X	X	R	R	R	R	R	R	R	X	X	X	R	R	R	R	R
Acrylonitrile	R	R	R	R	R	R	R	X	X	X	X	R	R	R	R	R	R	X	R	N	R	N	N	R
Adipic Acid	X	R	X	R	R	X	R	X	X	X	X	R	R	X	R	X	X	X	X	R	R	R	N	R
Alcohols:Amyl	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Alcohols:Benzyl	R	R	X	R	R	R	N	X	N	R	R	R	R	R	R	X	R	R	X	R	R	R	N	R
Alcohols:Butyl	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	N
Alcohols:Diacetone	R	R	R	R	R	R	R	X	X	R	X	R	R	R	R	R	R	R	X	R	N	R	R	N
Alcohols:Ethyl	R	R	R	R	R	R	N	X	R	R	X	X	R	R	R	R	R	R	R	R	R	R	R	N
Alcohols:Hexyl	R	R	X	R	R	R	R	X	X	R	X	X	R	R	R	X	R	R	X	R	N	R	N	R
Alcohols:Isobutyl	R	R	X	R	R	R	R	X	X	R	X	X	R	R	R	R	R	R	X	R	R	R	R	R
Alcohols:Isopropyl	R	R	X	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	R	R	R
Alcohols:Methyl	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R
Alcohols:Octyl	R	R	X	R	R	N	X	X	X	R	X	X	X	R	X	R	X	R	X	N	R	X	R	R
Alcohols:Propyl	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Aluminum Chloride	N	N	N	R	R	R	R	X	R	X	R	R	R	R	R	R	R	N	X	R	R	R	R	R
Aluminum Chloride 20%	N	N	N	N	N	R	R	X	X	N	R	R	R	R	R	R	R	N	R	R	R	R	R	R
Aluminum Fluoride	X	R	X	N	N	R	R	X	N	N	R	R	R	X	R	R	X	R	X	R	R	R	R	R
Aluminum Hydroxide	N	R	R	R	N	R	R	X	R	R	X	R	R	R	X	R	R	N	R	R	R	R	R	R
Aluminum Nitrate	X	N	X	R	R	X	R	X	N	R	X	R	R	R	X	R	R	R	X	X	R	R	R	R
Aluminum Potassium Sulfate 10%	X	N	R	R	R	N	R	X	X	N	X	R	R	X	R	R	N	X	N	R	R	R	R	R
Aluminum Potassium Sulfate 100%	X	N	X	N	R	N	R	X	X	N	X	X	R	X	R	R	N	X	N	R	R	R	R	R
Aluminum Sulfate	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Alums	X	R	X	X	R	R	X	X	R	X	X	X	R	R	X	X	X	X	R	R	R	R	R	R
Amines	N	R	R	R	R	R	N	X	X	N	R	X	R	R	R	X	R	X	X	R	N	R	R	N
Ammonia 10%	N	R	X	R	R	R	R	R	R	N	R	R	R	R	R	R	R	R	X	R	N	R	R	R
Ammonia, anhydrous	N	R	N	R	R	R	R	X	X	N	R	R	R	R	R	X	R	R	X	R	N	R	R	R

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Ammonia, liquid	N	R	X	R	R	R	R	X	R	N	R	R	R	R	R	R	X	R	N	R	R	N	R
Ammonia Nitrate	N	N	X	R	R	X	R	X	X	N	R	R	R	R	R	R	N	X	N	R	R	N	R
Ammonium Acetate	N	R	N	R	R	X	R	X	X	X	X	X	R	R	X	X	R	X	X	R	R	R	R
Ammonium Bifluoride	N	R	X	N	R	R	R	X	X	N	X	R	R	X	R	R	X	X	R	R	R	R	R
Ammonium Carbonate	N	R	N	R	R	R	R	X	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R
Ammonium Caseinate	X	X	X	X	R	X	X	X	X	N	X	X	X	X	X	X	X	X	X	X	X	X	X
Ammonium Chloride	N	R	N	N	R	N	R	X	N	R	R	R	R	R	R	R	R	R	N	R	R	R	R
Ammonium Hydroxide	N	R	N	R	R	R	R	N	N	N	R	R	R	R	R	R	R	N	R	R	R	N	R
Ammonium Nitrate	N	R	N	R	R	R	R	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Ammonium Oxalate	N	X	X	R	R	R	R	X	X	R	X	X	X	X	X	X	X	X	R	X	X	R	N
Ammonium Persulfate	N	N	N	R	R	R	R	X	X	N	X	R	R	X	R	R	X	R	R	R	R	R	R
Ammonium Phosphate, Dibasic	N	R	R	R	N	R	R	X	X	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Ammonium Phosphate, Monobasic	N	R	X	R	N	R	R	X	R	R	X	X	R	R	X	R	R	X	R	R	R	R	R
Ammonium Phosphate, Tribasic	N	R	X	R	R	R	R	X	X	R	X	X	R	R	X	R	X	X	R	R	R	R	R
Ammonium Sulfate	N	R	N	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Ammonium Sulfite	R	N	X	R	R	X	R	X	X	N	X	X	R	X	N	X	R	X	X	N	R	R	R
Ammonium Thiosulfate	N	X	N	X	R	X	X	X	X	R	X	X	X	R	X	X	X	X	X	X	R	R	R
Amyl Acetate	R	R	R	R	R	R	N	R	X	R	R	R	R	R	R	R	R	R	R	N	R	R	N
Amyl Alcohol	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R
Amyl Chloride	R	R	X	R	R	R	N	X	X	R	X	R	R	X	R	R	R	X	R	R	N	N	R
Aniline	N	N	N	R	R	R	N	X	N	R	R	R	R	R	R	R	R	X	R	R	R	R	N
Aniline Hydrochloride	N	N	N	N	N	N	R	X	X	X	X	R	R	X	N	X	X	N	R	R	R	N	R
Antifreeze	R	R	X	X	R	X	R	X	X	N	X	X	X	R	X	R	R	X	R	X	R	R	R
Antimony Trichloride	R	N	N	N	N	X	R	X	N	X	X	R	R	R	X	R	N	X	X	R	R	R	R
Aqua Regia (80% HCl, 20% HNO3)	N	N	N	N	N	N	N	X	X	N	N	R	R	N	N	N	N	X	N	N	R	N	N
Arochlor 1248	R	R	R	R	R	R	X	X	X	X	X	X	X	R	X	X	X	X	R	R	R	R	N
Aromatic Hydrocarbons	N	R	X	X	N	X	N	X	X	R	X	X	X	R	X	X	X	X	X	R	X	N	N
Arsenic Acid	R	N	N	R	R	R	R	X	X	N	R	R	R	X	R	X	N	X	R	R	R	R	R
Arsenic Salts	X	X	X	X	X	X	R	X	X	X	X	X	X	X	X	X	X	X	X	R	X	X	X

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Asphalt	R	R	R	R	R	X	R	X	X	R	R	R	R	R	R	R	R	X	R	R	N	R	R
Barium Carbonate	R	N	R	R	R	R	X	X	X	R	R	R	R	X	R	R	R	R	R	R	R	R	R
Barium Chloride	R	N	R	R	R	R	X	X	N	R	R	R	R	R	R	R	N	R	R	R	R	R	R
Barium Cyanide	N	N	N	R	R	R	N	X	X	R	X	X	R	X	X	X	X	X	R	R	R	N	R
Barium Hydroxide	N	N	N	R	R	R	R	X	X	N	R	R	R	X	R	R	R	R	R	R	R	R	R
Barium Nitrate	N	R	N	R	R	X	R	X	X	R	X	X	R	X	R	R	R	X	X	R	R	R	R
Barium Sulfate	N	R	R	R	R	R	R	X	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R
Barium Sulfide	N	N	N	R	R	X	R	X	R	R	X	R	R	R	R	R	R	R	X	R	R	R	R
Beer	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Beet Sugar Liquids	N	R	X	R	R	X	R	X	X	R	X	R	R	R	R	R	R	X	X	R	R	R	R
Benzaldehyde	R	R	X	R	R	R	N	X	R	R	R	R	R	R	R	R	R	R	R	N	R	R	N
Benzene	R	R	X	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	N
Benzene Sulfonic Acid	X	N	X	R	R	R	R	X	N	X	R	X	R	N	R	R	N	X	R	R	N	N	R
Benzoic Acid	R	R	X	R	R	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	N	N
Benzol	R	R	X	R	R	R	X	X	N	R	R	R	R	X	R	R	R	R	R	R	R	N	N
Benzonitrile	X	X	X	N	N	N	X	X	X	X	X	X	X	R	X	X	X	N	X	R	X	X	R
Benzyl Chloride	N	N	X	N	R	N	X	X	X	R	X	X	X	X	R	X	X	X	N	R	X	N	N
Bleaching Liquors	X	X	X	X	X	X	R	X	X	X	X	X	X	R	X	X	R	N	X	X	R	R	N
Borax (Sodium Borate)	R	R	X	R	R	R	R	X	X	R	R	R	R	R	R	R	N	R	R	R	R	R	R
Boric Acid	R	N	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Brewery Slop	R	X	X	X	R	X	X	X	X	R	X	X	X	X	X	R	X	X	X	R	X	X	R
Bromine	N	N	X	N	N	R	N	N	N	N	N	N	N	R	R	N	N	R	X	R	R	N	N
Butadiene	N	R	X	R	R	N	N	X	X	R	R	R	R	R	R	R	R	R	X	N	R	N	N
Butane	N	R	X	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	X	R	R	N	R
Butanol (Butyl Alcohol)	R	R	X	R	R	R	N	X	N	R	R	R	R	R	R	R	R	R	X	R	R	R	R
Butter	N	R	X	N	R	X	X	X	X	R	X	X	R	R	R	R	R	X	X	R	R	R	R
Buttermilk	N	R	X	R	R	R	R	X	X	R	X	X	R	R	R	R	R	R	X	R	R	R	R
Butyl Acetate	R	R	R	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R
Butyl Amine	R	R	X	X	R	R	N	X	R	N	N	R	R	R	R	X	X	R	N	R	X	X	R

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Butyl Ether	X	R	X	X	R	X	R	X	X	N	R	R	R	X	R	X	X	X	N	R	N	R	R
Butyl Phthalate	X	R	X	R	R	R	X	X	X	X	R	R	R	R	R	X	X	R	N	R	R	N	R
Butylene	N	R	X	R	R	X	R	X	X	R	R	R	R	R	R	X	R	X	X	R	R	N	R
Butyric Acid	N	R	X	R	R	R	R	X	N	R	R	R	R	R	R	N	R	R	R	R	R	N	R
Calcium Bisulfate	N	X	X	X	R	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	R	R	R
Calcium Bisulfide	N	N	X	R	R	R	R	X	X	N	X	R	R	R	X	R	X	R	R	R	R	N	R
Calcium Bisulfite	X	N	X	R	R	R	R	X	X	N	R	R	R	R	X	R	X	N	R	R	R	N	R
Calcium Carbonate	R	N	X	R	R	R	R	X	X	R	X	R	R	R	R	N	X	R	R	R	R	R	R
Calcium Chlorate	X	X	X	X	X	X	R	X	X	R	X	R	R	X	X	R	X	X	X	R	R	R	R
Calcium Chloride	R	N	X	N	R	R	N	X	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R
Calcium Hydroxide	N	N	X	R	R	R	R	X	X	N	R	R	R	R	R	R	R	R	R	R	R	R	R
Calcium Hypochlorite	N	N	X	N	R	R	R	X	X	N	R	R	R	R	R	R	N	R	R	R	R	R	N
Calcium Nitrate	R	R	X	N	R	R	R	X	X	N	R	R	R	R	R	R	R	X	R	R	R	R	R
Calcium Oxide	N	N	X	R	R	R	R	X	X	R	R	R	R	R	R	X	X	X	R	R	R	R	R
Calcium Sulfate	R	N	X	R	R	R	R	X	X	N	R	R	R	R	R	R	R	R	R	R	R	R	R
Calgon	N	X	X	R	R	X	X	X	X	R	X	X	X	R	X	X	X	X	R	X	R	R	R
Cane Juice	R	R	X	R	R	X	R	X	X	R	X	R	R	R	X	R	X	X	R	R	R	R	R
Carbolic Acid (Phenol)	R	R	N	R	R	R	N	X	N	N	R	R	R	N	R	R	N	X	R	R	R	N	R
Carbon Bisulfide	R	R	X	R	R	X	N	X	N	R	X	X	X	N	X	X	X	R	X	R	X	N	N
Carbon Dioxide (dry)	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	X	R	X	R	R	R	R	R
Carbon Dioxide (wet)	R	R	X	R	R	R	R	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Carbon Disulfide	N	R	X	R	R	R	N	X	N	R	R	R	R	N	R	R	R	X	R	R	R	N	N
Carbon Monoxide	R	R	X	R	R	R	R	X	X	R	X	R	R	R	R	R	R	X	R	R	R	R	R
Carbon Tetrachloride	R	N	X	R	R	R	N	X	X	R	R	R	R	R	R	R	R	X	R	R	R	N	N
Carbon Tetrachloride (dry)	R	N	R	R	R	R	X	X	X	R	R	R	R	X	R	R	R	R	R	R	R	N	R
Carbon Tetrachloride (wet)	R	N	R	R	R	R	X	X	X	R	R	R	R	X	R	R	R	X	X	R	X	N	N
Carbonated Water	R	R	N	R	R	X	R	X	X	R	X	X	R	R	R	X	R	R	X	X	R	X	X
Carbonic Acid	R	R	N	R	R	R	R	X	R	X	R	R	R	R	R	R	R	R	X	R	R	R	N
Catsup	R	N	X	R	R	X	R	X	X	R	X	X	R	R	X	R	X	X	R	X	R	R	R

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Chloric Acid	N	N	N	N	N	R	R	X	X	N	X	X	R	X	N	X	X	R	X	R	X	X	R
Chlorinated Glue	R	X	X	X	R	X	X	X	X	N	X	X	X	X	X	X	X	X	R	X	R	R	R
Chlorine (dry)	R	N	N	R	R	R	N	X	N	N	N	R	R	R	R	X	N	X	R	R	R	R	R
Chlorine Water	R	N	N	N	N	R	R	X	N	N	N	R	R	N	R	X	R	R	R	R	R	N	N
Chlorine, Anhydrous Liquid	N	N	N	N	N	N	N	X	X	R	N	R	R	N	R	N	X	N	N	R	R	R	N
Chloroacetic Acid	N	N	N	R	R	R	R	N	N	N	N	R	R	R	R	X	N	N	R	N	R	N	N
Chlorobenzene (Mono)	N	R	R	R	R	R	N	X	R	N	R	R	R	R	R	R	R	R	R	R	N	N	N
Chlorobromomethane	X	X	X	X	X	X	N	X	X	X	X	X	R	X	X	R	X	X	X	R	R	R	N
Chloroform	R	R	R	R	R	R	N	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N
Chlorosulfonic Acid	N	N	R	N	R	R	N	N	N	N	N	N	R	R	R	R	N	X	R	N	R	N	N
Chocolate Syrup	X	R	X	R	R	X	X	X	X	R	X	X	R	R	X	X	X	X	R	R	R	R	R
Chromic Acid 5%	N	N	N	R	R	R	R	X	N	N	N	R	R	R	R	R	N	N	R	R	R	R	N
Chromic Acid 10%	N	N	N	R	R	R	R	R	N	N	N	R	R	R	N	R	N	N	X	R	R	N	N
Chromic Acid 30%	R	N	N	R	R	N	R	X	N	N	N	R	R	R	N	R	N	N	X	N	R	R	N
Chromic Acid 50%	N	N	N	N	R	R	N	X	N	N	N	R	R	R	N	R	N	N	R	R	R	R	N
Chromium Salts	X	X	X	X	X	X	R	X	X	X	X	X	X	X	R	X	X	X	X	X	X	X	R
Cider	R	R	X	R	R	X	R	X	X	R	X	X	R	R	X	R	X	R	X	R	X	R	R
Citric Acid	N	N	N	R	R	R	R	X	N	R	R	R	R	R	R	R	N	R	R	R	R	R	R
Citric Oils	R	N	X	R	R	X	X	X	X	R	X	X	X	R	X	R	X	X	X	R	X	R	R
Clorox® Bleach (Sodium Hypochlorite)	X	N	X	R	R	R	R	R	N	N	N	R	R	R	X	R	N	X	R	R	R	N	R
Coffee	R	R	X	R	R	R	X	X	X	R	X	X	R	R	X	R	R	X	R	R	X	R	R
Copper Chloride	N	X	X	N	N	X	R	X	N	R	R	R	R	R	R	X	R	N	R	X	R	R	R
Copper Cyanide	N	N	N	R	R	R	R	X	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R
Copper Fluoborate	X	X	X	N	N	R	R	X	X	R	X	X	X	X	X	X	X	X	R	R	X	X	R
Copper Nitrate	N	N	N	R	R	R	R	X	X	R	R	R	R	R	R	R	N	R	R	R	R	X	R
Copper Sulfate 5%	N	N	N	R	R	R	R	X	R	N	R	R	R	R	R	R	N	R	R	R	R	R	R
Copper Sulfate >5%	R	N	N	R	R	R	R	X	R	N	R	R	R	R	R	R	N	R	R	R	R	R	R
Cream	R	R	X	R	R	X	X	X	R	X	X	X	R	R	X	R	X	X	X	R	R	X	R
Cresols	R	R	X	R	R	R	N	N	N	R	R	R	X	R	R	X	X	R	R	X	N	N	R

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Cresylic Acid	N	R	X	R	R	R	N	X	X	N	X	R	R	R	R	N	X	R	R	R	N	N	R
Cupric Acid	X	N	X	N	R	R	R	X	X	X	X	R	X	R	X	R	X	X	R	R	R	R	R
Cyanic Acid	X	X	X	R	R	X	X	X	X	N	X	X	R	X	R	X	X	X	R	R	X	N	R
Cyclohexane	R	R	R	R	R	R	N	X	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R
Cyclohexanone	R	R	X	R	R	R	N	X	R	R	R	N	R	R	R	R	R	R	R	N	R	R	N
Detergents	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R
Diacetone Alcohol	R	R	R	R	R	X	N	X	X	X	X	N	R	X	R	X	X	X	N	R	R	N	R
Dichlorobenzene	R	R	X	X	R	R	N	X	X	X	X	R	R	R	R	X	X	X	R	N	R	N	R
Dichloroethane	N	R	R	R	R	R	N	X	X	R	X	R	R	R	R	R	X	X	R	N	R	X	N
Diesel Fuel	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	N	R
Diethyl Ether	R	R	R	R	R	R	N	X	X	X	R	R	R	R	R	R	R	X	R	N	R	N	N
Diethylamine	R	R	R	R	R	R	N	X	X	R	X	N	N	R	R	R	R	X	R	R	N	R	N
Diethylene Glycol	X	R	X	R	R	R	N	X	R	R	X	R	R	R	R	R	X	R	R	R	R	R	R
Dimethyl Aniline	X	R	X	R	R	R	N	X	X	N	R	R	R	X	R	X	R	X	R	N	R	R	N
Dimethyl Formamide	X	R	X	R	R	X	N	X	X	N	R	N	R	R	X	X	R	X	X	N	R	R	N
Diphenyl	R	R	R	R	R	R	X	X	X	X	X	X	X	X	X	R	X	X	R	R	R	N	N
Diphenyl Oxide	X	R	X	R	R	R	N	X	X	N	R	R	R	X	X	R	X	X	R	R	R	N	R
Dyes	X	R	R	R	X	R	X	X	N	X	X	X	X	X	X	R	X	X	X	R	X	X	X
Epsom Salts (Magnesium Sulfate)	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Ethane	X	X	X	R	R	X	R	X	X	R	X	R	R	R	R	R	R	X	X	R	R	N	R
Ethanol	R	R	R	R	R	R	N	X	R	R	X	X	R	R	R	R	R	R	X	R	R	R	N
Ethanolamine	R	R	X	R	R	R	N	X	X	N	R	N	R	X	R	R	R	X	R	N	R	R	R
Ether	R	R	R	R	R	R	N	X	X	R	R	R	R	R	R	R	R	R	X	R	N	N	R
Ethyl Acetate	R	R	R	R	R	R	N	X	R	R	R	N	R	R	R	R	R	R	X	R	N	R	N
Ethyl Benzoate	X	X	X	X	X	N	X	X	X	X	N	R	X	X	X	X	X	X	X	R	R	X	N
Ethyl Chloride	R	R	R	R	R	R	N	X	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Ethyl Ether	R	R	R	R	R	R	N	X	X	R	R	R	R	R	R	R	X	R	R	R	X	N	N
Ethyl Sulfate	N	X	X	N	N	X	X	X	X	X	X	X	X	X	X	R	X	R	R	X	X	R	R
Ethylene Bromide	R	R	X	R	R	R	N	X	X	X	X	R	R	R	R	X	R	X	R	R	N	N	R

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Ethylene Chloride	R	R	X	R	R	X	N	X	X	R	R	R	R	R	R	R	R	X	R	R	N	N	R
Ethylene Chlorohydrin	R	R	R	R	R	R	N	X	N	N	X	R	R	R	R	X	N	X	R	R	R	N	R
Ethylene Diamine	R	R	N	R	R	N	N	X	X	N	R	R	R	R	X	X	R	X	N	R	R	R	R
Ethylene Dichloride	N	R	R	R	R	R	N	X	X	R	R	R	R	R	R	R	X	R	R	R	N	N	R
Ethylene Glycol	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Ethylene Oxide	N	N	N	R	R	R	N	X	R	N	N	R	R	R	R	R	R	X	R	N	R	N	N
Fatty Acids	R	R	N	R	R	R	R	X	R	R	X	R	R	R	R	R	R	X	R	R	N	R	R
Ferric Chloride	N	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	N	X	R	R	R	R	R
Ferric Nitrate	N	N	N	R	R	R	R	X	X	N	R	R	R	R	R	R	N	X	R	R	R	R	R
Ferric Sulfate	N	N	N	R	R	R	R	X	X	N	R	R	R	R	R	R	N	X	R	R	R	R	R
Ferrous Chloride	N	N	N	N	N	R	R	X	R	N	R	R	R	R	R	R	N	R	R	R	R	X	R
Ferrous Sulfate	R	R	R	R	R	R	R	X	X	N	R	R	R	R	R	R	N	R	R	R	R	R	R
Fluoboric Acid	R	N	X	R	R	R	R	X	X	R	R	R	R	R	X	R	N	X	R	R	R	R	R
Fluorine	N	R	R	N	R	R	N	N	N	N	N	R	N	N	N	X	X	R	R	N	N	R	N
Fluosilicic Acid	R	N	R	N	R	R	N	X	X	R	R	R	R	X	R	N	X	R	R	R	R	R	R
Formaldehyde 40%	R	R	R	R	R	R	R	X	R	R	R	R	R	R	X	R	N	R	R	R	R	R	R
Formaldehyde 100%	R	R	X	N	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	N	R	N	R
Formic Acid	N	R	N	R	R	R	R	X	N	R	R	R	R	R	N	R	R	N	R	R	N	R	N
Freon 113	X	X	X	X	X	R	R	X	X	R	R	R	R	R	X	R	R	R	R	R	R	N	R
Freon 12	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	X	R	R	R	R	R
Freon 22	X	N	R	R	R	R	R	X	X	R	R	R	R	R	X	R	R	X	R	N	R	R	N
Freon TF	X	N	X	R	R	R	R	X	X	R	N	R	R	R	X	R	R	R	R	R	R	N	R
Freon® 11	X	N	X	R	R	R	R	X	X	N	R	R	R	R	X	R	R	R	R	R	R	N	R
Fruit Juice	X	R	N	R	R	R	R	R	R	N	X	R	R	R	X	R	R	R	R	R	R	X	R
Fuel Oils	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	N	R
Furan Resin	X	R	X	R	R	R	R	X	X	N	R	N	R	X	X	X	X	R	N	R	N	N	R
Furfural	R	R	X	R	R	R	R	N	X	R	R	R	R	R	X	R	R	R	X	R	N	N	R
Gallic Acid	R	N	X	R	R	R	R	X	X	X	R	R	R	R	R	X	R	X	R	R	R	R	R
Gasoline (high-aromatic)	R	N	X	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	N	R	R

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Gasoline, leaded, ref.	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	
Gasoline, unleaded	R	R	X	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	
Gelatin	R	R	N	R	R	R	R	X	X	R	X	R	R	R	R	R	X	R	R	R	R	R	R	R	
Glucose	X	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Glue, P.V.A.	R	R	X	R	R	R	N	X	X	R	X	X	R	X	R	R	X	R	R	R	R	R	R	R	
Glycerin	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Glycolic Acid	X	X	X	R	R	R	R	X	X	R	R	R	R	R	X	R	R	N	X	R	R	R	R	R	
Gold Monocyanide	X	X	X	R	R	X	X	X	X	R	X	R	N	X	X	R	X	X	X	R	N	X	R	R	
Grape Juice	R	X	X	R	R	X	R	X	X	R	X	R	R	R	X	R	X	X	X	R	R	R	R	R	
Grease	R	X	R	X	R	R	R	R	X	N	X	R	R	R	X	R	X	X	R	R	N	R	R	R	
Heptane	R	R	R	R	R	R	N	X	X	R	R	R	R	R	R	R	R	X	R	R	N	R	R	R	
Hexane	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	
Honey	R	R	X	R	R	R	R	X	X	R	X	R	R	R	X	R	R	X	R	R	R	R	R	R	
Hydraulic Oil (Petro)	R	R	R	R	R	R	R	R	X	R	N	R	R	R	R	R	R	R	R	R	R	N	R	R	
Hydraulic Oil (Synthetic)	R	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	R	R	R	N	R	
Hydrazine	X	X	X	R	R	X	X	X	X	R	X	R	R	R	X	R	X	X	R	R	R	R	R	R	
Hydrobromic Acid 20%	X	N	N	N	N	R	R	R	N	N	X	R	R	N	R	R	N	R	R	R	X	R	N	R	
Hydrobromic Acid 100%	X	N	N	N	N	N	R	X	N	N	R	R	R	N	R	R	N	R	R	N	R	R	R	N	R
Hydrochloric Acid 20%	N	N	X	N	N	R	R	R	N	N	N	R	R	N	R	N	N	R	R	R	R	N	X	R	
Hydrochloric Acid 37%	N	N	X	N	N	R	R	X	N	N	N	R	R	R	R	N	N	R	R	R	R	R	R	R	
Hydrochloric Acid 100%	N	N	N	N	N	R	N	N	N	N	N	R	R	R	R	R	R	N	R	R	R	N	N	R	
Hydrochloric Acid, Dry Gas	R	N	N	N	N	R	R	X	N	X	R	R	R	R	R	R	N	R	R	X	R	X	X	R	
Hydrocyanic Acid	R	R	N	R	R	R	R	X	X	R	R	R	R	N	R	R	N	X	R	R	R	R	R	R	
Hydrocyanic Acid (Gas 10%)	X	X	X	X	X	R	X	X	N	X	X	R	N	X	X	N	X	X	X	R	R	R	R	R	
Hydrofluoric Acid 20%	R	N	X	N	N	R	R	R	N	N	R	R	R	N	X	N	N	R	R	R	R	N	N	R	
Hydrofluoric Acid 50%	R	N	X	N	N	R	R	X	N	N	R	R	R	N	R	N	N	R	R	R	R	N	N	R	
Hydrofluoric Acid 75%	R	N	X	N	N	R	N	N	N	N	R	R	R	N	R	N	N	R	R	R	R	R	N	N	
Hydrofluoric Acid 100%	R	N	X	R	R	R	N	N	N	N	N	R	R	N	R	N	N	R	R	R	R	N	N	R	
Hydrofluosilicic Acid 100%	R	N	X	N	N	R	R	X	N	R	R	R	R	X	R	R	N	X	R	R	R	R	R	R	

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Hydrofluosilicic Acid 20%	R	N	X	N	R	R	R	X	X	R	R	R	R	X	R	R	N	X	R	R	R	R	R
Hydrogen Gas	R	R	X	R	R	R	R	X	X	X	R	R	R	X	R	R	X	X	R	R	R	R	R
Hydrogen Peroxide 10%	R	R	X	R	R	R	R	R	N	N	R	R	R	R	R	N	R	N	R	R	R	R	N
Hydrogen Peroxide 30%	R	R	X	R	R	R	R	X	N	N	R	R	R	R	N	X	N	R	R	R	R	R	N
Hydrogen Peroxide 50%	R	R	X	R	R	R	R	X	N	N	X	R	R	R	N	X	N	R	R	R	R	R	N
Hydrogen Peroxide 100%	R	R	N	R	R	R	R	X	N	N	N	R	R	R	N	X	N	R	R	R	R	N	N
Hydrogen Sulfide (aqua)	R	R	X	N	R	R	R	R	N	N	R	R	R	R	R	R	R	R	R	R	N	R	N
Hydrogen Sulfide (dry)	R	R	N	N	R	R	R	X	X	X	R	R	R	R	R	X	R	X	R	N	R	R	N
Hydroquinone	X	R	X	R	R	R	R	R	R	R	X	X	R	R	R	X	X	R	R	R	R	N	N
Hydroxyacetic Acid 70%	X	X	X	X	X	X	N	X	X	R	X	R	R	X	X	R	X	X	R	R	R	R	R
Ink	X	X	X	N	N	X	N	X	X	R	X	R	R	R	X	R	R	R	X	R	R	X	R
Iodine	R	R	X	N	N	R	R	X	X	N	N	R	R	N	N	N	N	X	R	R	R	R	R
Iodine (in alcohol)	R	R	X	X	X	R	R	X	N	N	X	R	X	X	X	R	X	X	R	X	X	R	X
Iodoform	X	X	X	R	R	N	R	X	X	X	X	N	N	X	X	X	X	X	N	X	N	R	N
Isooctane	R	R	R	R	R	X	R	R	R	X	R	R	R	R	R	X	R	X	X	R	R	N	R
Isopropyl Acetate	R	N	X	N	R	R	N	X	X	N	X	N	R	R	R	R	R	R	X	R	N	R	N
Isopropyl Ether	R	R	R	R	R	R	R	R	R	N	X	N	R	R	R	R	R	R	X	R	N	R	R
Isotane	X	N	X	X	X	X	R	X	X	X	X	R	X	X	X	X	X	X	X	X	R	X	X
Jet Fuel (JP3, JP4, JP5)	R	R	X	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R
Kerosene	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N
Ketones	R	R	X	R	R	R	N	X	X	N	R	N	R	R	R	R	R	R	X	R	N	R	N
Lacquer Thinners	R	R	R	R	R	R	N	X	X	N	X	X	R	X	R	X	R	X	R	N	R	N	N
Lacquers	R	R	X	R	R	R	N	X	X	N	X	N	R	R	R	R	R	R	X	R	N	R	N
Lactic Acid	R	R	N	R	R	R	R	X	R	R	R	R	R	R	R	R	R	N	X	R	R	R	R
Lard	R	R	X	R	R	R	R	X	X	R	X	R	R	R	R	R	R	R	X	R	R	N	R
Latex	X	R	X	R	R	R	X	X	X	R	X	R	R	R	R	X	X	X	X	R	R	R	R
Lead Acetate	R	N	X	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	N	R	R
Lead Nitrate	R	N	X	R	R	R	R	X	X	X	R	R	R	R	R	X	X	X	R	R	R	R	R
Lead Sulfamate	X	N	X	N	N	X	R	X	X	R	X	R	X	R	X	X	X	X	X	R	R	R	R

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	Bronze	Aluminum	Brass	304 SS	316 SS	CD4MCu	PVC	PBT Polyester (V/lox)	Nylon 6,6	Acetal (Delrin)	PPS (Ryton)	PVDF (Kynar)	Rulon 641	PEEK	Carbon - Graphite	Ceramic / Sapphire	Tungsten Carbide	Ferrite (MnZn)	Hastelloy-C	Viton	PTFE (Teflon)	EPDM	Buna-N (Nitrile)	Perfluoroelastomer (FFKM)
Ligroin	X	N	X	X	R	X	X	X	R	X	R	R	R	R	X	X	R	X	X	R	R	N	R	R
Lime	X	R	X	R	R	X	R	X	X	R	X	R	R	R	R	R	N	X	X	R	R	N	R	R
Linoleic Acid	X	R	X	R	R	X	R	X	X	R	X	R	R	R	R	X	N	X	X	R	R	N	R	R
Lithium Chloride	R	N	X	R	R	X	N	X	X	R	X	R	R	R	X	X	X	X	R	R	R	R	R	R
Lithium Hydroxide	R	N	X	R	R	R	X	X	X	X	X	X	R	X	R	X	X	X	R	X	R	X	N	R
Lubricants	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	N	R	R
Lye: Ca(OH)2 Calcium Hydroxide	N	N	X	R	R	R	R	X	X	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Lye: KOH Potassium Hydroxide	N	N	N	R	R	R	R	X	X	R	R	R	R	R	N	N	N	R	R	R	R	R	R	R
Lye: NaOH Sodium Hydroxide	N	N	N	R	R	N	R	X	X	N	R	N	R	R	X	R	R	X	N	R	R	R	R	R
Magnesium Bisulfate	R	N	X	R	R	X	R	X	X	X	X	X	R	X	R	X	X	X	X	R	X	R	R	R
Magnesium Carbonate	R	R	X	R	R	R	R	X	X	R	X	R	R	R	R	X	X	R	R	R	R	R	R	R
Magnesium Chloride	R	N	N	N	N	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Magnesium Hydroxide	R	N	N	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Magnesium Nitrate	R	R	X	R	R	R	R	X	X	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R
Magnesium Oxide	X	R	X	R	R	X	X	X	X	R	X	X	R	X	X	X	X	X	N	R	X	R	R	R
Magnesium Sulfate (Epsom Salts)	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Maleic Acid	R	R	X	R	R	R	R	X	X	R	R	R	R	R	R	R	N	X	R	R	N	N	N	R
Maleic Anhydride	X	R	X	R	R	X	X	X	X	N	X	R	R	X	X	R	X	X	X	R	R	N	N	R
Malic Acid	R	R	R	R	R	R	R	X	X	R	X	R	R	R	X	R	R	X	X	R	R	N	R	R
Manganese Sulfate	R	R	N	R	R	R	N	X	X	R	R	R	R	R	R	R	R	X	X	R	R	R	R	R
Mash	X	R	X	R	R	X	X	X	X	R	X	X	R	R	X	R	X	X	X	R	X	R	R	R
Mayonnaise	X	R	X	N	R	R	N	X	X	R	X	R	R	R	X	R	X	X	R	R	X	N	R	R
Melamine	X	X	X	X	N	X	N	X	X	R	X	X	R	X	N	R	X	X	X	R	R	R	N	R
Mercuric Chloride (dilute)	N	N	N	N	N	N	R	X	R	R	R	R	R	R	N	R	N	X	N	R	R	R	R	R
Mercuric Cyanide	N	N	X	N	N	R	R	X	X	X	R	R	R	R	X	X	R	X	X	R	R	R	R	R
Mercurous Nitrate	X	N	X	R	R	R	R	X	X	X	X	R	R	R	X	N	R	X	R	R	R	R	R	R
Mercury	R	N	N	R	R	R	R	X	X	R	X	R	R	R	N	R	X	R	R	R	R	R	R	R
Methane	R	R	X	R	R	R	R	X	X	R	X	R	R	R	R	R	R	X	R	R	R	N	R	R
Methanol (Methyl Alcohol)	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R

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Methyl Acetate	R	R	X	R	R	R	N	R	R	R	X	R	R	R	R	R	X	R	N	R	R	N	R		
Methyl Acetone	R	R	R	R	R	X	N	X	X	N	X	N	R	X	R	X	X	X	N	R	R	N	R		
Methyl Acrylate	X	X	X	R	X	X	X	X	X	R	X	R	X	X	X	R	R	X	X	N	X	R	N	R	
Methyl Alcohol 10%	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	N	R	R	R	R		
Methyl Bromide	X	N	X	R	R	X	N	X	X	N	X	R	R	X	R	R	R	X	X	X	R	R	N	R	
Methyl Butyl Ketone	X	X	X	R	R	X	R	X	X	N	X	N	X	N	X	R	X	X	X	N	X	R	N	R	
Methyl Cellosolve	R	R	R	R	R	X	N	X	X	N	X	R	R	X	R	R	R	X	X	N	R	R	R		
Methyl Chloride	R	N	R	R	R	R	N	X	R	R	R	R	R	R	R	R	R	X	R	R	N	N	R		
Methyl Dichloride	X	X	X	X	X	X	R	X	X	N	X	N	X	X	X	R	R	X	X	R	X	N	N	R	
Methyl Ethyl Ketone	R	R	R	R	R	R	N	R	R	N	R	N	R	R	R	R	R	X	R	R	N	R	R	N	R
Methyl Ethyl Ketone Peroxide	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	N	X	N	N	R	
Methyl Isobutyl Ketone	R	R	X	R	R	R	N	X	R	X	R	N	R	R	R	R	R	X	X	R	N	R	R	N	R
Methyl Isopropyl Ketone	R	R	X	R	R	X	N	X	R	X	X	X	R	R	R	R	R	X	X	N	R	N	N	R	
Methyl Methacrylate	X	X	X	R	R	X	R	X	X	N	X	R	X	R	X	R	X	R	X	X	N	X	N	N	R
Methylamine	R	R	N	R	R	X	N	X	X	N	X	N	R	R	R	R	R	X	X	N	R	R	R	R	
Methylene Chloride	R	N	R	R	R	R	N	N	R	R	R	R	R	R	R	R	R	X	R	R	N	N	N	R	
Milk	R	R	N	R	R	R	R	X	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	
Mineral Spirits	R	R	X	R	R	R	R	R	X	R	R	X	R	R	R	R	R	R	R	X	R	R	N	R	
Molasses	R	R	R	R	R	R	R	X	X	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	
Monochloroacetic acid	R	N	R	R	R	R	R	X	X	N	X	R	R	R	R	R	R	X	N	R	N	N	N	R	
Monoethanolamine	R	R	X	R	R	X	N	X	X	N	R	N	R	R	R	R	R	X	R	X	X	N	R	R	
Morpholine	X	R	X	X	R	R	X	X	X	X	N	R	R	X	R	X	R	X	R	X	X	R	N	N	R
Motor oil	R	R	X	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	X	X	R	N	R	
Mustard	R	R	X	R	R	R	R	X	X	N	X	R	R	R	R	R	R	R	X	X	R	N	R	R	
Naphtha	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	R	N	R	R	
Naphthalene	R	R	X	R	R	R	N	X	R	R	R	R	R	R	R	R	R	R	X	R	R	N	N	R	
Natural Gas	R	R	X	R	R	X	R	X	X	R	X	X	R	X	X	R	R	X	X	X	X	R	R	N	R
Nickel Chloride	R	N	N	N	N	R	R	X	R	R	R	R	R	R	R	R	R	R	N	N	R	R	R	R	
Nickel Nitrate	R	N	X	R	R	R	R	X	X	X	X	R	R	X	R	R	X	R	N	R	R	R	R	R	

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Nickel Sulfate	R	N	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		
Nitrating Acid (<15% H <sub>2</sub> SO <sub>4</sub> )	X	N	X	N	N	R	N	X	X	X	N	X	R	N	X	R	N	X	R	X	R	X	X	R	
Nitrating Acid (>15% H <sub>2</sub> SO <sub>4</sub> )	X	N	X	N	N	R	N	X	X	N	N	X	R	N	X	R	N	X	R	X	R	R	N	R	
Nitrating Acid (<1% Acid)	X	N	X	N	R	R	N	X	X	X	N	X	R	N	X	R	N	X	R	X	R	X	X	R	
Nitrating Acid (<15% HNO <sub>3</sub> )	X	N	X	N	N	R	N	X	X	X	N	X	R	N	X	R	N	X	R	X	R	X	X	R	
Nitric Acid (5-10%)	R	R	N	R	R	R	R	X	R	N	R	R	R	N	R	N	N	N	X	R	R	R	N	R	
Nitric Acid (20%)	R	N	N	R	R	R	R	X	R	N	N	R	R	N	N	N	N	N	R	R	R	R	N	R	
Nitric Acid (50%)	R	N	N	R	R	R	R	X	N	N	R	R	N	R	N	N	N	N	R	R	R	N	N	R	
Nitric Acid (Concentrated)	R	N	N	R	R	R	R	R	N	N	N	R	R	N	N	N	N	N	R	R	R	N	N	R	
Nitrobenzene	R	R	X	R	R	N	N	N	R	N	R	R	R	N	R	R	R	R	X	N	R	R	R	N	R
Nitrogen Fertilizer	X	X	X	X	X	X	X	X	X	X	X	X	R	X	X	X	X	X	X	X	R	X	X	R	
Nitromethane	X	R	X	R	R	R	R	N	N	R	R	R	R	R	R	X	X	X	R	N	R	R	N	R	
Nitrous Acid	R	N	N	R	R	N	R	X	X	X	X	R	R	X	X	R	N	X	N	R	R	R	X	R	
Nitrous Oxide	N	R	R	R	R	R	R	X	X	X	X	N	R	R	N	X	X	R	R	R	R	R	X	R	
Oils:Aniline	R	N	N	R	R	R	N	X	X	N	X	R	R	R	X	R	R	X	R	N	R	R	N	R	
Oils:Anise	R	X	X	X	R	X	X	X	R	N	X	X	X	X	X	R	R	X	X	X	X	X	X	R	
Oils:Bay	R	X	X	X	R	X	X	X	R	N	X	R	X	X	X	R	R	X	X	R	X	X	X	R	
Oils:Bone	R	X	X	X	R	X	X	X	X	N	X	R	R	X	X	R	R	X	X	R	R	R	X	R	
Oils:Castor	X	R	R	R	R	X	R	X	R	R	X	R	R	R	X	R	R	R	X	R	R	R	R	R	
Oils:Cinnamon	X	X	X	R	R	X	N	X	R	N	X	X	R	X	X	R	R	X	X	R	R	X	X	R	
Oils:Citric	X	R	R	R	R	R	R	X	R	R	X	R	R	R	X	R	R	X	R	R	R	R	N	R	
Oils:Clove	X	R	X	R	R	R	X	X	R	X	X	X	R	X	X	R	R	X	R	R	R	R	X	R	
Oils:Coconut	X	R	X	R	R	R	R	X	R	R	X	R	R	X	X	R	R	X	R	R	R	R	N	R	
Oils:Cod Liver	X	R	X	R	R	R	R	X	R	R	X	R	R	X	X	R	R	X	R	R	R	R	R	R	
Oils:Corn	X	R	X	R	R	R	R	R	R	R	X	R	R	X	R	R	X	R	R	X	R	R	N	N	
Oils:Cottonseed	X	R	R	R	R	R	R	X	R	R	R	R	R	R	X	R	R	R	X	R	R	R	N	R	
Oils:Creosote	R	R	X	R	R	R	R	N	X	R	N	X	X	R	R	R	R	R	R	X	R	R	N	N	
Oils:Diesel Fuel (20, 30, 40, 50)	R	R	X	R	R	R	R	X	R	N	R	R	R	R	R	R	R	R	R	X	R	R	N	R	
Oils:Fuel (1, 2, 3, 5A, 5B, 6)	R	N	R	R	R	R	R	X	R	N	R	R	R	R	R	R	R	R	R	X	R	R	N	R	

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Oils:Ginger	N	X	X	N	N	X	X	R	R	X	R	R	R	X	X	R	X	X	R	R	R	R	R
Oils:Hydraulic Oil (Petro)	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	X	R	R	R	N	R
Oils:Hydraulic Oil (Synthetic)	R	R	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	X	R	R	R	R	R
Oils:Lemon	R	R	X	R	R	X	X	X	R	N	X	R	R	R	X	R	R	X	X	R	R	N	X
Oils:Linseed	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R
Oils:Mineral	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R
Oils:Olive	R	R	X	R	R	R	N	R	R	R	X	X	R	R	R	R	R	R	X	R	R	N	N
Oils:Orange	R	R	X	R	R	R	N	X	R	N	X	R	R	R	X	R	R	X	R	R	X	X	R
Oils:Palm	R	X	X	R	R	X	R	R	R	R	X	R	R	R	X	R	R	X	X	R	R	R	R
Oils:Peanut	R	R	X	R	R	X	R	R	R	R	X	R	R	R	X	R	R	X	X	R	R	N	R
Oils:Peppermint	R	N	X	R	R	X	X	X	R	N	X	R	R	X	X	R	R	X	X	R	R	X	N
Oils:Pine	R	R	X	R	R	X	N	X	R	R	X	R	R	X	X	R	R	X	X	R	R	N	N
Oils:Rapeseed	R	X	X	R	R	X	X	X	R	R	X	R	R	X	X	R	R	X	X	R	R	R	N
Oils:Rosin	R	R	X	R	R	R	N	X	R	X	X	R	R	X	R	R	R	X	R	R	R	X	R
Oils:Sesame Seed	R	X	X	R	R	X	R	R	R	N	X	R	R	X	R	R	X	X	R	R	X	R	R
Oils:Silicone	R	R	X	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Oils:Soybean	R	R	X	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	X	R	R	N	R
Oils:Sperm (whale)	R	X	X	R	R	X	X	X	N	X	R	R	X	X	R	R	X	X	R	R	R	X	R
Oils:Tanning	R	X	X	R	R	X	X	X	X	N	X	R	X	X	X	R	R	X	X	R	X	X	R
Oils:Transformer	X	R	X	R	R	X	R	R	X	R	X	R	R	R	R	R	R	X	X	R	R	N	R
Oils:Turbine	R	R	X	R	R	X	R	R	X	R	X	R	R	R	R	R	X	R	R	R	R	R	R
Oleic Acid	R	R	N	R	R	R	N	X	R	R	R	R	R	R	R	R	N	X	X	R	R	R	R
Oleum 25%	N	R	X	R	R	R	N	X	X	N	R	N	R	N	N	N	X	X	R	R	N	N	R
Oleum 100%	R	R	X	R	R	N	N	X	X	N	R	N	R	N	N	N	X	X	N	R	N	N	R
Oxalic Acid (cold)	R	R	N	R	R	R	R	R	N	R	R	R	R	R	N	R	R	N	X	R	R	R	N
Ozone	R	R	X	R	R	X	R	R	N	N	X	R	R	R	X	X	X	X	X	R	R	R	N
Palmitic Acid	R	R	N	R	R	R	R	R	X	X	R	X	R	R	X	R	X	R	R	R	R	R	R
Paraffin	R	R	R	R	R	R	R	X	N	R	X	R	R	R	R	R	R	R	R	X	R	R	N
Pentane	N	R	X	N	N	R	R	X	X	R	X	R	R	R	R	R	R	R	X	R	R	N	R

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	Bronze	Aluminum	Brass	304 SS	316 SS	CD4MCu	PVC	PBT Polyester (V/lox)	Nylon 6,6	Acetal (Delrin)	PPS (Ryton)	PVDF (Kynar)	Rulon 641	PEEK	Carbon - Graphite	Ceramic / Sapphire	Tungsten Carbide	Ferrite (MnZn)	Hastelloy-C	Viton	PTFE (Teflon)	EPDM	Buna-N (Nitrile)	Perfluoroelastomer (FFKM)
Perchloric Acid	R	N	X	N	N	R	N	N	R	N	X	R	R	R	R	X	N	X	R	R	R	R	N	R
Perchloroethylene	R	N	X	R	R	R	N	R	R	R	R	R	R	R	R	R	R	X	R	R	R	N	N	R
Petrolatum	R	X	X	R	R	R	R	X	X	R	X	R	N	R	R	R	R	X	R	R	N	R	R	R
Petroleum	R	N	X	R	R	X	X	R	R	R	X	R	R	R	R	R	R	X	X	R	R	N	R	R
Phenol (10%)	R	R	X	R	R	R	N	N	N	R	R	R	R	N	R	R	R	X	R	R	R	R	N	R
Phenol (Carbolic Acid)	R	R	N	R	R	R	N	N	N	N	R	R	R	R	N	R	R	N	X	R	R	R	N	R
Phosphoric Acid (<40%)	R	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	R	N	N	R	R	R	N	R
Phosphoric Acid (>40%)	R	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	R	N	X	R	R	R	N	R
Phosphoric Acid (crude)	X	N	X	N	R	R	R	X	N	N	R	R	R	R	X	N	N	X	R	R	R	R	N	R
Phosphoric Acid (molten)	R	N	X	X	N	N	N	X	N	N	X	N	X	X	X	R	X	N	X	N	X	X	X	R
Phosphoric Acid Anhydride	X	N	X	X	X	X	X	X	X	N	N	N	X	X	X	R	N	X	X	X	X	X	N	R
Phosphorus	R	R	X	R	R	R	R	X	X	R	X	R	R	X	N	X	X	X	R	X	R	X	X	R
Phosphorus Trichloride	X	N	X	R	R	R	N	X	X	N	R	R	R	R	X	X	X	X	R	R	R	R	R	N
Photographic Developer	R	X	X	R	R	R	R	X	X	N	X	X	R	X	R	R	X	R	R	R	R	R	R	R
Photographic Solutions	R	X	X	N	X	R	R	X	X	N	R	R	R	R	R	R	X	X	R	R	R	R	R	R
Phthalic Acid	R	R	X	R	R	R	X	N	N	N	X	R	R	R	R	R	X	N	X	R	R	R	N	R
Phthalic Anhydride	R	R	X	R	R	R	N	X	X	N	X	R	R	X	R	X	R	X	R	R	R	R	N	R
Picric Acid	R	N	X	R	R	R	N	X	X	R	R	R	R	R	R	R	X	N	X	R	R	R	N	R
Plating Solutions, Antimony Plating 130°F	R	R	X	R	R	R	R	X	X	R	X	R	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Arsenic Plating 110°F	R	R	X	R	R	R	R	X	X	R	X	R	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Brass Plating: High-Speed Brass Bath 110°F	X	R	X	X	R	R	R	X	X	R	X	R	R	X	R	N	X	X	R	R	R	X	R	R
Plating Solutions, Brass Plating: Regular Brass Bath 100°F	R	R	X	R	R	R	R	X	X	R	X	R	R	X	R	N	X	X	R	R	R	X	R	R
Plating Solutions, Bronze Plating: Cu-Cd Bronze Bath R.T.	X	R	X	R	R	R	R	X	X	R	X	R	R	X	X	N	X	X	R	R	R	R	R	R
Plating Solutions, Bronze Plating: Cu-Sn Bronze Bath 160°F	X	R	X	R	R	R	N	X	X	R	X	R	R	X	X	N	X	X	R	R	R	R	R	R

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Plating Solutions, Bronze Plating: Cu-Zn Bronze Bath 100°F	X	R	X	R	R	R	R	X	X	R	X	R	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Cadmium Plating: Cyanide Bath 90°F	X	R	X	X	R	R	R	X	X	R	X	R	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Cadmium Plating: Fluoborate Bath 100°F	X	R	X	R	R	N	R	X	X	N	X	R	R	X	X	N	X	X	N	R	R	X	R	R
Plating Solutions, Chromium Plating: Barrel Chrome Bath 95°F	X	R	X	X	N	N	R	X	X	N	X	N	R	X	X	R	X	X	N	N	R	X	N	R
Plating Solutions, Chromium Plating: Black Chrome Bath 115°F	X	R	X	X	N	N	R	X	X	N	X	N	R	X	X	R	X	X	N	N	R	X	N	R
Plating Solutions, Chromium Plating: Chromic-Sulfuric Bath 130°F	X	R	X	X	N	N	R	X	X	N	X	N	R	X	X	R	X	X	N	N	R	X	N	R
Plating Solutions, Chromium Plating: Fluoride Bath 130°F	X	R	X	X	N	N	R	X	X	N	X	N	R	X	X	R	X	X	N	N	R	X	N	R
Plating Solutions, Chromium Plating: Fluosilicate Bath 95°F	X	R	X	X	N	N	R	X	X	N	X	N	R	X	X	R	X	X	N	N	R	X	N	R
Plating Solutions, Copper Plating (Acid): Copper Fluoborate Bath 120°F	X	R	X	R	N	N	R	X	X	N	X	R	R	X	X	N	X	X	N	R	R	X	R	R
Plating Solutions, Copper Plating (Acid): Copper Sulfate Bath R.T.	X	R	X	X	N	N	R	X	X	R	X	R	R	X	X	N	X	X	N	R	R	X	R	R
Plating Solutions, Copper Plating (Cyanide): Copper Strike Bath 120°F	X	X	X	X	R	R	R	X	X	R	X	R	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Copper Plating (Cyanide): High-Speed Bath 180°F	X	R	X	X	R	R	N	X	X	R	X	R	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Copper Plating (Cyanide): Rochelle Salt Bath 150°F	X	R	X	X	R	R	N	X	X	R	X	R	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Copper Plating (Misc): Copper (Electroless)	X	R	X	X	X	X	R	X	X	N	X	R	R	X	X	R	X	X	X	R	R	X	N	R

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Plating Solutions, Copper Plating (Misc): Copper Pyrophosphate	X	R	X	X	R	R	R	X	X	R	X	R	R	X	X	R	R	R	R	X	R	R	R	
Plating Solutions, Gold Plating: Acid 75°F	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Gold Plating: Cyanide 150°F	X	X	X	X	R	R	N	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Gold Plating: Neutral 75°F	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Indium Sulfamate Plating R.T.	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Iron Plating: Ferrous Am Sulfate Bath 150°F	X	X	X	X	N	R	N	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Iron Plating: Ferrous Chloride Bath 190°F	X	X	X	X	N	N	N	X	X	X	X	X	R	X	X	R	X	X	N	R	R	X	R	R
Plating Solutions, Iron Plating: Ferrous Sulfate Bath 150°F	X	X	X	X	N	R	N	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Iron Plating: Fluoborate Bath 145°F	X	X	X	X	N	R	N	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Iron Plating: Sulfamate 140°F	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Iron Plating: Sulfate-Chloride Bath 160°F	X	X	X	X	N	N	N	X	X	X	X	X	R	X	X	R	X	X	N	R	R	X	R	R
Plating Solutions, Lead Fluoborate Plating	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Nickel Plating: Electroless 200°F	X	X	X	X	X	X	N	X	X	X	X	X	R	X	X	R	X	X	X	R	R	X	N	R
Plating Solutions, Nickel Plating: Fluoborate 100-170°F	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Nickel Plating: High-Chloride 130-160°F	X	X	X	X	N	R	N	X	X	X	X	X	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Nickel Plating: Sulfamate 100-140°F	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Nickel Plating: Watts Type 115-160°F	X	X	X	X	N	R	N	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Rhodium Plating 120°F	X	X	X	X	N	N	R	X	X	X	X	X	R	X	X	R	X	X	N	R	R	R	R	R
Plating Solutions, Silver Plating 80-120°F	X	X	X	X	R	R	R	X	X	X	X	X	R	X	X	R	X	X	R	R	R	R	R	R
Plating Solutions, Tin-Fluoborate Plating 100°F	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Tin-Lead Plating 100°F	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	N	X	X	R	R	R	X	R	R

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Plating Solutions, Zinc Plating: Acid Chloride 140°F	X	X	X	X	N	N	R	X	X	X	X	X	R	X	X	X	R	X	N	R	R	X	R	R
Plating Solutions, Zinc Plating: Acid Fluoroborate Bath R.T.	X	X	X	X	N	R	R	X	X	X	X	X	R	X	X	R	X	X	R	R	R	X	R	R
Plating Solutions, Zinc Plating: Acid Sulfate Bath 150°F	X	X	X	X	N	R	N	X	X	X	X	X	R	X	X	N	X	X	R	R	R	X	R	R
Plating Solutions, Zinc Plating: Alkaline Cyanide Bath R.T.	X	X	X	X	R	R	R	X	X	X	X	X	R	X	X	N	X	X	R	R	R	X	R	R
Potash (Potassium Carbonate)	R	N	X	R	R	R	R	X	R	R	X	R	X	R	R	R	N	X	R	R	R	X	R	R
Potassium Bicarbonate	R	N	X	R	R	R	R	X	X	N	R	R	R	R	R	R	N	R	R	R	R	R	R	R
Potassium Bromide	R	N	X	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Potassium Chlorate	R	R	X	R	R	R	R	X	X	R	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Potassium Chloride	R	N	N	R	R	R	R	R	R	R	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Potassium Chromate	R	R	X	R	R	R	R	X	X	N	X	R	R	X	R	N	X	X	R	R	R	R	R	R
Potassium Cyanide Solutions	N	N	N	R	R	R	R	X	X	N	R	R	R	X	R	R	N	X	R	R	R	R	R	R
Potassium Dichromate	R	R	X	R	R	R	R	R	R	R	R	R	R	R	X	R	R	X	R	R	R	R	R	R
Potassium Ferricyanide	R	R	X	R	R	R	R	X	N	R	X	R	R	R	R	N	R	R	R	R	R	R	N	R
Potassium Ferrocyanide	R	R	X	R	R	R	R	X	X	X	X	R	R	R	R	N	R	R	R	R	R	R	N	R
Potassium Hydroxide (Caustic Potash)	N	N	N	R	R	R	R	N	R	R	R	R	R	R	R	N	N	N	R	R	R	R	R	R
Potassium Hypochlorite	N	N	X	N	R	R	R	X	X	X	R	R	R	X	X	N	N	X	R	X	R	R	R	R
Potassium Iodide	R	R	X	R	R	R	R	X	X	X	R	R	R	R	X	R	R	N	X	R	R	R	R	R
Potassium Nitrate	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R
Potassium Oxalate	R	R	X	R	R	R	R	X	X	X	X	X	X	R	X	R	R	X	X	R	X	X	X	R
Potassium Permanganate	R	R	X	R	R	R	R	X	N	R	R	R	R	R	R	N	X	R	R	R	R	N	R	N
Potassium Sulfate	R	N	N	R	R	R	R	X	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R	R
Potassium Sulfide	N	N	X	R	R	X	R	X	X	X	R	R	R	R	R	R	R	X	X	R	R	R	R	R
Propane (liquefied)	R	R	R	R	R	R	R	X	R	R	X	R	R	R	R	R	R	X	R	R	R	N	R	R
Propylene	X	R	X	R	R	X	R	X	X	X	X	X	X	R	X	R	X	R	X	X	R	R	N	N
Propylene Glycol	R	R	X	R	R	R	N	R	R	R	X	X	R	R	X	R	R	R	R	R	R	R	R	R
Pyridine	R	R	R	R	R	N	R	N	R	R	N	R	N	R	R	R	R	X	R	N	R	N	R	R

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Pyrogallic Acid	R	R	X	R	R	R	X	X	N	X	R	R	R	R	N	X	R	R	R	R	R	R	X	R
Resorcinol	X	X	X	X	X	X	N	X	R	X	X	R	R	R	R	X	X	X	R	R	R	R	X	R
Rosins	R	R	X	R	R	X	N	X	X	R	X	X	R	R	R	R	R	X	X	R	R	X	R	R
Rum	R	X	X	R	R	X	R	X	X	R	X	X	R	R	R	X	R	Z	X	X	R	X	R	R
Rust Inhibitors	R	X	X	R	R	X	X	X	X	R	X	X	X	X	X	R	X	X	X	R	X	X	R	R
Salad Dressings	X	R	X	R	R	X	X	X	X	R	X	X	R	R	R	X	R	X	X	X	R	X	X	R
Salicylic Acid	R	R	X	R	R	R	R	N	N	N	X	R	R	R	R	X	N	X	R	R	R	R	R	R
Salt Brine (NaCl saturated)	R	R	X	R	R	R	R	X	X	X	R	R	R	R	R	X	N	X	R	R	R	R	R	R
Sea Water	R	R	N	N	N	R	R	R	X	R	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Shellac (Bleached)	R	R	R	R	R	X	X	X	X	R	X	X	R	X	R	R	R	X	X	R	R	R	R	R
Shellac (Orange)	R	R	R	R	R	X	X	X	X	R	X	X	R	X	R	R	R	X	X	R	R	R	R	R
Silicone	X	R	X	R	R	X	R	X	X	R	R	R	R	R	R	R	R	X	X	X	R	R	R	R
Silver Bromide	N	N	X	N	N	R	X	X	X	N	X	X	R	X	X	X	X	X	R	X	X	X	R	
Silver Nitrate	R	N	X	R	R	R	R	R	R	R	R	R	R	R	R	R	N	X	R	R	R	R	R	
Soap Solutions	R	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Soda Ash (see Sodium Carbonate)	R	N	X	R	R	X	R	X	R	R	R	R	R	R	R	X	R	R	X	X	R	R	R	
Sodium Acetate	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	X	R	N	R	R	R	
Sodium Aluminate	R	X	X	R	R	R	X	X	X	R	R	X	R	X	R	R	R	X	X	R	R	R	R	
Sodium Benzoate	R	R	X	X	X	R	R	X	X	X	X	R	R	R	R	R	R	X	R	R	R	R	R	
Sodium Bicarbonate	R	N	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Sodium Bisulfate	R	N	N	N	N	R	R	X	X	R	R	R	R	R	R	R	N	X	R	R	R	R	R	
Sodium Bisulfite	R	N	X	R	R	R	R	X	X	N	R	R	R	R	R	R	N	X	R	R	R	R	R	
Sodium Borate (Borax)	R	N	X	R	R	R	R	X	X	X	R	R	R	R	R	R	N	R	R	R	R	R	R	
Sodium Bromide	R	N	X	N	N	X	R	R	X	R	X	R	R	R	R	X	R	X	N	X	X	R	R	
Sodium Carbonate	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	N	R	R	R	R	
Sodium Chlorate	R	N	X	R	R	R	R	R	R	R	R	R	R	R	R	N	R	N	X	R	R	R	R	
Sodium Chloride	R	N	N	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	
Sodium Chromate	R	R	X	R	R	R	R	X	X	X	N	R	R	R	R	R	R	X	X	R	R	X	R	
Sodium Cyanide	N	N	N	R	R	R	R	X	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	

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Sodium Ferrocyanide	X	R	X	R	R	R	R	X	R	R	X	R	R	R	R	X	X	R	R	R	R	R	R
Sodium Fluoride	R	R	X	N	N	R	R	X	X	X	X	R	R	R	R	R	N	X	R	R	R	R	R
Sodium Hydrosulfite	X	R	X	X	X	R	N	X	X	X	X	X	R	R	R	X	X	X	R	R	R	N	R
Sodium Hydroxide (20%)	R	N	R	R	R	R	R	X	R	R	R	R	R	R	R	N	X	R	N	R	R	R	R
Sodium Hydroxide (50%)	N	N	N	R	R	N	R	X	R	R	R	R	R	R	X	R	N	X	N	N	R	R	R
Sodium Hydroxide (80%)	N	N	N	N	R	R	R	N	R	N	R	R	R	R	R	R	N	N	R	N	R	R	N
Sodium Hypochlorite (<20%)	N	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	N	R	R	R	R	R	R
Sodium Hypochlorite (100%)	N	N	N	N	N	R	R	X	N	N	R	R	R	R	N	R	N	R	R	R	R	R	N
Sodium Hyposulfite	X	N	X	R	R	X	X	X	X	X	X	X	R	X	X	X	X	X	X	X	R	X	X
Sodium Metaphosphate	R	N	N	R	R	X	R	X	X	R	X	R	R	R	R	R	X	X	X	R	R	R	R
Sodium Metasilicate	R	N	X	R	R	R	R	X	X	N	X	X	R	R	X	X	N	X	R	R	R	R	R
Sodium Nitrate	R	R	X	R	R	R	R	X	R	R	R	R	R	R	N	N	N	R	R	R	R	R	R
Sodium Perborate	R	N	N	R	R	R	R	X	R	R	X	X	R	R	N	N	R	X	R	R	R	R	R
Sodium Peroxide	R	N	N	R	R	R	R	X	X	N	X	R	R	R	R	R	N	X	R	R	R	R	R
Sodium Polyphosphate	R	N	N	R	R	R	R	X	X	R	X	R	R	R	R	R	R	X	R	R	R	R	R
Sodium Silicate	R	R	N	R	R	R	R	X	R	N	R	R	R	R	R	R	R	X	R	R	R	R	R
Sodium Sulfate	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	X	R	R	R	R	R
Sodium Sulfide	R	N	N	R	N	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Sodium Sulfite	R	N	N	R	R	R	R	X	X	X	X	R	R	R	R	R	N	X	R	R	R	R	R
Sodium Tetraborate	R	N	X	R	R	X	R	X	X	R	X	X	R	R	R	R	R	X	X	R	R	R	R
Sodium Thiosulfate (hypo)	R	R	N	R	R	R	R	X	X	N	R	R	R	R	R	R	N	X	R	R	R	R	R
Sorghum	R	X	X	R	R	X	X	X	R	X	X	R	R	R	R	R	X	X	R	X	X	R	R
Soy Sauce	R	R	X	R	R	X	X	X	R	X	X	R	R	R	R	R	X	X	R	X	X	R	R
Stannic Chloride	R	N	X	N	N	R	R	X	R	N	R	R	R	R	R	R	N	X	R	R	R	R	R
Stannic Fluoborate	X	X	X	X	R	X	X	X	X	N	X	X	X	X	X	X	X	X	R	X	X	R	R
Stannous Chloride	R	N	X	N	R	R	R	X	X	X	R	R	R	R	R	R	X	N	X	R	R	N	R
Starch	X	R	X	R	R	X	R	X	X	R	X	X	R	R	R	R	R	R	R	X	R	R	R
Stearic Acid	R	R	N	R	R	R	R	X	N	R	X	R	R	R	R	R	R	R	X	R	R	R	R
Stoddard Solvent	R	R	X	R	R	R	N	X	R	R	R	R	R	R	R	R	R	X	R	R	N	R	R

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	Metals					Plastics					Journals, Shafts			O-Rings										
	Bronze	Aluminum	Brass	304 SS	316 SS	CD4MCu	PVC	PBT Polyester (V/lox)	Nylon 6,6	Acetal (Delrin)	PPS (Ryton)	PVDF (Kynar)	Rulon 641	PEEK	Carbon - Graphite	Ceramic / Sapphire	Tungsten Carbide	Ferrite (MnZn)	Hastelloy-C	Viton	PTFE (Teflon)	EPDM	Buna-N (Nitrile)	Perfluoroelastomer (FFKM)
Styrene	R	R	R	R	R	N	N	X	X	R	X	X	R	R	R	R	R	X	N	R	R	N	R	R
Sugar (Liquids)	R	R	X	R	R	R	X	X	X	R	X	X	R	R	R	R	R	X	R	R	R	R	R	R
Sulfate (Liquors)	R	N	X	R	R	R	R	X	X	N	X	R	R	R	R	R	R	X	R	R	R	R	R	R
Sulfur Chloride	R	N	N	N	N	R	N	X	X	N	X	R	R	R	R	N	X	X	N	R	R	N	N	R
Sulfur Dioxide	R	R	N	N	R	N	R	X	N	R	R	R	R	R	R	R	R	X	N	R	R	R	N	R
Sulfur Dioxide (dry)	R	R	N	N	R	R	R	X	X	R	R	R	R	R	R	R	R	X	X	R	R	R	N	R
Sulfur Hexafluoride	X	X	X	X	X	X	R	X	X	X	X	X	X	R	X	X	X	X	X	X	R	R	R	R
Sulfur Trioxide	N	R	N	R	N	X	R	X	X	X	X	X	R	R	R	R	R	X	X	R	R	N	N	R
Sulfur Trioxide (dry)	R	R	R	N	R	R	R	X	X	N	X	N	R	R	N	R	X	R	R	R	N	N	N	R
Sulfuric Acid (<10%)	R	N	X	N	R	R	R	X	N	N	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Sulfuric Acid (10-75%)	R	N	X	N	N	R	R	X	N	N	R	R	R	R	N	R	N	N	X	R	R	R	R	R
Sulfuric Acid (75-100%)	R	N	X	N	N	R	N	X	N	X	R	R	R	N	N	R	N	N	R	R	R	R	N	R
Sulfuric Acid (hot concentrated)	R	N	X	N	N	N	N	X	N	X	N	N	R	N	N	N	X	N	R	R	N	N	N	R
Sulfuric Acid (cold concentrated)	R	R	X	N	R	R	N	X	N	X	R	R	R	N	N	X	N	X	R	R	N	N	N	R
Sulfurous Acid	R	R	X	R	R	R	R	X	N	N	R	R	R	R	R	R	N	N	R	R	R	R	R	R
Sulfuryl Chloride	X	X	X	X	X	X	X	X	X	R	X	X	R	X	X	R	X	X	X	R	X	X	R	X
Tallow	X	R	X	R	R	X	X	R	X	R	X	X	R	R	R	R	R	X	X	R	R	R	R	R
Tannic Acid	R	N	R	R	R	R	R	X	N	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R
Tanning Liquors	R	R	X	R	R	R	R	X	X	R	X	X	R	X	R	R	X	X	R	R	R	R	R	R
Tartaric Acid	R	R	N	N	N	R	R	X	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R
Tetrachloroethane	X	N	X	R	R	R	N	X	X	R	X	R	R	R	R	R	N	X	R	R	N	N	N	R
Tetrachloroethylene	X	X	X	X	R	X	N	X	X	R	X	X	R	R	R	R	X	N	X	X	R	R	N	N
Tetrahydrofuran	R	X	X	R	R	R	N	N	R	R	R	R	R	R	R	R	R	X	R	N	R	N	N	R
Tin Salts	X	N	X	X	N	N	R	X	X	X	R	R	R	R	R	R	X	X	X	N	R	R	R	R
Toluene (Toluol)	R	R	R	R	R	R	N	N	R	N	R	R	R	R	R	R	R	R	R	N	R	N	N	R
Tomato Juice	R	R	X	R	R	X	R	X	R	R	R	R	R	R	R	R	N	X	X	R	R	R	R	R
Trichloroacetic Acid	X	N	X	N	N	R	R	X	X	X	R	R	R	R	R	R	N	X	R	N	R	R	X	R
Trichloroethane	R	N	X	R	R	R	N	X	R	R	X	R	R	R	R	R	R	X	R	R	R	N	N	R
Trichloroethylene	R	N	X	R	R	R	N	X	R	N	R	R	R	R	R	R	X	R	R	R	R	N	N	R

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Trichloropropane	R	N	X	R	R	R	X	X	R	X	X	R	X	X	R	X	X	R	R	R	X	N	R	
Tricresylphosphate	R	N	X	R	R	R	N	X	X	N	X	N	R	X	R	R	X	X	R	R	R	R	N	R
Triethylamine	X	X	X	R	R	X	R	X	X	N	X	R	R	X	R	R	R	X	X	N	R	R	N	R
Trisodium Phosphate	R	N	X	R	R	R	R	X	R	R	R	R	R	R	R	X	R	X	R	R	R	R	R	R
Turpentine	R	R	N	R	R	R	N	R	R	R	R	R	R	R	R	R	R	X	R	R	R	N	X	R
Urea	R	R	X	R	R	R	N	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R
Uric Acid	R	N	X	R	R	R	R	X	R	X	X	X	R	R	R	N	X	X	R	X	X	X	R	R
Urine	R	R	X	R	R	X	R	X	X	R	X	R	R	R	R	R	X	X	R	R	R	R	R	R
Varnish	X	R	R	R	R	R	N	X	X	R	X	X	R	R	R	R	R	R	X	R	R	N	R	R
Vegetable Juice	R	N	R	R	R	X	X	X	R	X	X	R	R	R	X	R	X	X	R	R	R	R	R	R
Vinegar	R	N	N	R	R	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Vinyl Acetate	X	R	X	R	R	X	N	X	X	X	X	R	R	R	R	R	R	X	X	R	R	R	N	R
Vinyl Chloride	R	R	X	R	R	R	N	X	R	X	X	R	R	R	R	R	R	R	X	R	R	N	N	R
Water, Acid, Mine	R	N	N	R	R	R	R	X	X	R	R	R	R	X	R	R	X	X	R	R	R	R	R	R
Water, Deionized	X	R	R	R	R	R	R	X	X	X	R	R	R	R	X	R	R	X	X	R	R	R	R	R
Water, Distilled	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Water, Fresh	R	R	R	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Water, Salt	R	R	N	R	R	R	R	X	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R
Weed Killers	X	N	X	R	R	X	X	X	R	X	X	X	X	R	X	X	X	R	X	X	X	R	X	X
Whey	X	R	X	R	R	X	X	X	R	X	X	R	R	X	R	X	X	X	R	R	X	R	X	R
Whiskey & Wines	R	N	R	R	R	X	R	R	R	X	R	R	R	R	R	R	R	R	X	R	R	R	R	R
White Liquor (Pulp Mill)	R	R	R	R	R	R	R	X	X	N	X	R	R	X	R	R	X	X	R	R	R	X	R	R
White Water (Paper Mill)	X	X	X	R	R	X	R	X	X	R	X	X	X	X	X	R	X	X	X	R	X	X	X	R
Xylene	R	R	R	R	R	R	N	N	R	R	R	R	R	R	R	R	R	R	R	X	R	R	N	N
Zinc Chloride	R	N	N	R	R	R	R	R	N	N	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Zinc Hydrosulfite	X	N	X	R	R	X	X	X	X	N	R	X	R	X	X	X	R	X	X	X	X	R	R	R
Zinc Sulfate	R	N	R	R	R	R	R	X	R	N	R	R	R	R	R	R	N	R	R	R	R	R	R	R