Little Giant PUMP COMPANY SUBSIDIARY TECUMSEH PRODUCTS COMPANY

CHEMICAL RESISTANCE CHART

CHEMICAL RESISTANCE DATA

These recommendations are based upon information from material suppliers and careful examination of available published 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.

RATINGS — CHEMICAL EFFECT
A — No effect—Excellent
B — Minor effect—Good
C — Moderate effect—Fair
D — Severe effect—Not recommended

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 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.

NOTE: The materials shown below in **BOLDFACE TYPE** are used in the construction of Little Giant chemical pumps.

	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Acetaldehyde[5]	A	A	A		B	**A**	**A**	D			C		D	D	A		A	A	D	C	**B**	**A**	**A**	**A**		**D**	**B**	B	D	B	C	A
Acetamide		B	A								C						B							**A**		**A**	**A**		A	A	D	A
Acetate Solvent[2]	A	B	A	B	B			A	C	B	A		B	D	A			A		B	**D**		**A**	**A**		**D**	**D**		D			A
Acetic Acid, Glacia[1]		B	A	A	B	**A**	**A**	C	C	D	A		C	B	A	C	D	D	D	B	**B**	**A**	**A**	**A**		**D**	**D**	B	C	B	C	B
Acetic Acid 20%		B	A			**A**	**A**		C			**A**	B		A	A		D			**A**	**A**		**A**		**A**	**C**		C			B
Acetic Acid 80%		B	A			**A**	**A**		C			**A**	D		A	B		D			**B**			**A**		**A**	**C**		D			B
Acetic Acid		B	A	B	B	**A**	**A**	C	C	D	C	**B**	A	B	A	A	D	D	C	B	**A**	**A**	**A**	**A**		**C**	**C**		C	B	C	A
Acetic Anhydride	B	A	A	B	B	**A**	**A**	C	D	B	D	**D**	D	D	A	D	D	D	D	A	**A**	**A**	**A**	**A**		**D**	**A**	C	B	B	C	A
Acetone[6]	A	A	A	B	A	**A**	**A**	A	A	A	A	**D**	D	D	A	D	B	A	D	C	**B**	**A**	**A**	**A**	**A**	**D**	**D**	B	C	A	D	B
Acetyl Chloride		C	A					D							A							**A**				**A**						A
Acetylene[2]	A	A	A	A	A	**B**		B		A	A		B				A	A			**D**	**A**	**A**	**A**		**A**	**A**	C	B	A	C	A
Acrylonitrile	A	A	C		B	**B**	**B**	A		C							B		D		**B**	**A**	**A**	**A**		**C**	**D**		D	D		A
Alcohols: Amyl	A	A	A		C	**A**	**A**	A	B	C	C	**A**	A	B	A	C	A	A	B	B	**B**	**A**	**A**	**A**		**A**	**A**	D	A	A	C	A
Benzyl		A	A		B	**A**	**A**	A	C				D	B		A	A	A	D	D	**A**		**A**	**A**		**A**	**D**		B	B	D	A
Butyl	A	A	A		B	**B**	**A**	B	C	C	C	**A**	A	B	A	A	A	A		B	**B**	**A**	**A**	**A**		**A**	**A**	D	A	A	A	A
Diacetone[2]		A	A		A	**A**	**A**	A	C		A		D			A	A	A			**D**		**A**	**A**		**D**	**D**		D	A	D	A
Ethyl		A	A	A	B	**A**	**A**	A	C	A	A		A	C		A	B	A	B	B	**A**		**A**	**A**	**A**	**A**	**A**	B	A	B	A	A
Hexyl		A	A		A	**A**	**A**	A	C		A					A	A	A			**A**		**A**	**A**		**A**	**A**	D	B	A	A	A
Isobutyl		A	A		B	**A**	**A**	A	C		A					A	A	A	B		**A**		**A**	**A**		**A**	**C**	B	A	A	A	A

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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.**

	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Alcohols: Isopropyl		A	A		B	**A**	**A**	A	C	C	A					A	A	A			**A**		**A**	**A**		**A**	**C**	C	B	A	A	A
Methyl[6]		A	A	A	B	**A**	**A**	A	C	A	A		B		A	A	C	A	D	B	**A**		**A**	**A**	**A**	**C**	**B**		A	A	A	A
Octyl		A	A		A	**A**	**A**	A	C		A					A	A	A					**A**	**A**		**A**	**B**		B	A	C	A
Propyl		A	A		A	**A**	**A**	A			A	**B**	A		A	A	A	A			**A**		**A**	**A**		**A**	**A**	B	A	A	A	A
Aluminum Chloride 20%		D	C	D	B	**A**	**A**	D		D	A		A	B		A	C	A		B	**A**	**A**	**A**	**A**		**A**	**A**		A	A	A	A
Aluminum Chloride	C	D	C		D	**C**	**A**	C		D	B	**A**	A	A	A	A		D			**A**	**A**	**A**	**A**		**A**	**A**	C	A			A
Aluminum Fluoride		D	C	D		**D**	**B**				A	**A**	A		A	A	C	D		B	**A**		**A**			**A**	**A**	C	A		C	A
Aluminum Hydroxide[6]		A	A	A	A			A		D	A		A		A	A	B	A			**A**		**A**	**A**	**A**	**A**	**A**		A		A	A
Aluminum Potassium Sulfate (Alum), 10%		A			A		**B**			D	A		A		A			A		A			**A**	**A**		**A**			A		A	A
Aluminum Potassium Sulfate (Alum), 100%		D	A	B	B		**B**	C			A		A	B	A	A	C	D		B	**A**		**A**	**A**		**A**	**A**		A		A	A
Aluminum Sulfate		C	C	A	A	**A**	**A**	C	C	D	A	**A**	A	B	A	A	C	A		B	**A**	**A**	**A**	**A**		**A**	**A**		A	A	A	A
Amines	A	A	A		A	**B**	**A**	B		A	B		C	A	A	B	D	A					**A**	**A**		**D**	**D**	C	B	B	C	A
Ammonia 10%			A			**A**	**A**					**D**	A		A	A		A			**A**	**A**		**A**		**A**	**D**		A			B
Ammonia, Anhydrous	A	B	A	A	B	**B**	**A**	D		D	B	**D**	A	B	A	A	D	A		B	**A**	**B**	**C**	**A**		**D**	**B**	B	A	A	D	A
Ammonia, Liquids		A	A	A	D		**B**	D		A	A		A	B	A	A	D			D	**A**		**A**	**A**		**D**	**B**	B	A	A	D	A
Ammonia, Nitrate		A	A	A	C			D			A		B	B		A	C				**A**		**A**	**A**			**A**		C			A
Ammonium Bifluoride		C	A		D		**B**						A			A	D				**A**			**A**		**A**	**A**		A			A
Ammonium Carbonate	B	A	A	A	C	**A**	**B**	B		C	B		A	B	A	A	D	A			**A**		**A**	**A**		**B**	**D**	C	A	A		A
Ammonium Casenite			A													A	D												A			A
Ammonium Chloride	C	A	C	A	C	**D**	**A**	D	C	D	D	**A**	A	B	A	A	B	A		B	**A**	**A**	**A**	**A**		**A**	**A**	C	A	A	A	A
Ammonium Hydroxide	A	A	A	A	C	**A**	**A**	D	D	A	C		A	B	A	A	D	A	B	B	**A**	**A**	**A**	**A**		**B**	**B**	B	A	A	C	A
Ammonium Nitrate	A	A	A	A	B	**A**	**A**	D	D	A	D		A	B	A	A	C	D		B	**A**	**A**	**A**	**A**		**D**	**A**	C	A	A	A	A
Ammonium Oxalate		A	A	A			**A**				A						B						**A**				**A**		A			A
Ammonium Persulfate		A	A	A	C	**C**	**A**	A		D	A	**D**	A		A	A	D	D			**A**		**A**	**A**		**C**	**A**		A	A	A	A
Ammonium Phosphate, Dibasic	B	A	A	A	B	**A**	**A**	C			D		A		A	A	B	A		B	**A**		**A**	**A**		**A**	**A**	B	A	A	A	A
Ammonium Phosphate, Monobasic		A	A	A	B	**A**	**A**	D			A		A	A	A	A	B	A		B	**A**		**A**	**A**		**A**	**A**	B	A	A	A	A
Ammonium Phosphate, Tribasic	B	A	A	A	B	**A**	**A**	C		C	D		A		A	A	B	A		B	**A**		**A**	**A**		**A**	**A**	B	A	A	A	A
Ammonium Sulfate	C	D	B	A	B	**A**	**A**	B	C	C	C	**A**	A	D	A	A	B	D		B	**A**	**A**	**A**	**A**		**D**	**A**	B	A	A	A	A
Ammonium Thio-Sulfate			A			**A**				D	A						B						**A**	**A**			**A**		A			A
Amyl-Acetate	B	A	A	C	B	**A**	**A**	C			C	**C**	D	D	A	D	A	B		D	**D**	**A**	**A**	**A**		**D**	**D**	D	D	A	D	A
Amyl Alcohol		A	A		B	**A**	**A**	A			A	**A**	A	B	A	C	A	A		B	**A**		**A**	**A**		**B**	**B**	D	A	A	C	A
Amyl Chloride		C	B		D		**A**	A			A	**A**	D	C	A	D	A	C		D	**D**		**A**	**A**		**A**	**D**		D	D	D	A
Aniline	B	A	A	A	C	**A**	**B**	C			C	**C**	D	D	A	D	D	C	D	C	**B**	**A**	**A**	**A**		**C**	**D**	C	D	B	D	A
Antifreeze		A	A		A		**A**	B	B	B	C		A	B	A	A	A	A	B	B	**A**	**A**	**A**	**A**	**A**	**A**	**A**	C	A	A	A	A
Antimony Trichloride		D	D		D	**C**	**A**						A	A	A			D		A				**A**		**A**			C		A	A
Aqua Regia (80%, HCL, 20%, HNO)		D	D		D	**A**	**D**	D				**C**	D	D	A	D	D	D		D	**C**			**D**		**C**	**D**	C	D	D	D	D
Arochlor 1248											A					D							**A**		**A**	**D**		D	B	D	A
Aromatic Hydrocarbons			A		A			A		A	A		D			D	A			C			**A**		**A**	**D**		D	D	D	A
Arsenic Acid	B	A	A		D			D	B	D	D	**A**	A	B	A	A	D	A		B	**A**		**A**	**A**		**A**	**A**		A		C	A
Asphalt		B	A		C			A		C			A				A	A			**A**	**A**		**A**	**A**	**A**	**B**	C	B	D	D	A
Barium Carbonate	B	A	A	A	B	**A**	**A**	B		B	B		A	A	A	A	A	A		B	**A**		**A**	**A**	**A**	**A**	**A**		A		A	A
Barium Chloride	C	D	A	A	D	**A**	**A**	B			C	**A**	A	B	A	A	A	B		B	**A**	**A**	**A**	**A**		**A**	**A**	B	A	A	A	A
Barium Cyanide			A					C			A						B			B			**A**			**A**	**C**		A	A		A
Barium Hydroxide	B	C	A	A	D	**B**	**B**	B		C	C	**A**	A		A	A	D	A		B	**A**	**A**	**A**	**A**	**A**	**A**	**A**	C	A	A	A	A

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Barium Nitrate		A	A			**A**		D		A	A		B			A	A						**A**	**A**		**A**	**A**		A	A		B
Barium Sulfate	B	A	A	A	D	**A**	**A**	C		C	C	**A**	A		A	A	A	A		B	**A**	**A**	**A**	**B**		**A**	**A**	D	A	A		B
Barium Sulfide	B	A	A		D	**B**		C		C	C		A	A	A	A	A	A		B	**A**		**A**	**A**		**A**	**A**	C	A	A	A	A
Beer[2]	A	A	A		A	**A**	**A**	A	B	D	D	**A**	A		A	A	B	D	B	B	**D**		**A**	**A**		**A**	**D**	C	A	A	A	A
Beet Sugar Liquids	A	A	A		A			A	B	A			A		A	A	B	A	B		**A**		**A**	**A**		**A**	**A**		B	A	A	A
Benzaldehyde[3]	A	A	A		B	**A**	**A**	A		B	A	**C**	D	D	A	D	A	C	D	D	**D**	**A**	**A**	**A**		**D**	**D**	B	D	A	D	A
Benzene[2]	B	A	A	A	B	**A**	**B**	B	A	B	C	**B**	D	C	A	D	A	A	D	D	**D**	**A**	**A**	**A**	**A**	**A**	**D**		D	D	D	A
Benzoic Acid[2]	B	A	A	A	B	**A**	**A**	B		D		**A**	A	B	A	A	B	D		B	**D**		**A**	**B**		**A**	**D**		D	D	D	A
Benzol		A	A		B	**A**	**A**	B	A				D		A	D	A	A			**A**		**A**	**A**	**A**	**D**	**D**		D			A
Borax (Sodium Borate)		A	A	A	C	**B**	**A**	A	B	A	C	**A**	A	A	A	A	A	A		B	**A**	**A**	**A**	**A**	**A**	**A**	**B**	C	A	A	C	A
Boric Acid	B	A	A	A	B	**A**	**A**	B	C	D		**A**	A	B	A	A	A	A		B	**A**		**A**	**A**	**A**	**A**	**A**		A	A	A	A
Brewery Slop			A					A		A							A					**A**	**A**		**A**	**A**		A			A
Bromine[2] (wet)	D	D	D	D	D	**A**	**A**	C		D	D	**A**	B	B	A	D	D	D	D	D	**D**	**D**	**D**	**A**	**D**	**A**	**D**	D	D	D	D	C
Butadiene	A	A	A		A			C	A	C	C	**A**	A		A		A	A				**B**	**A**	**A**		**A**	**A**		B	A		A
Butane[2] [1]	A	A	A		A			A	A	C	C	**A**	A	C	A	D	A	A	B	C	**D**	**A**	**A**	**A**		**A**	**A**	D	B	D	D	A
Butanol		A	A		A		**A**	A							A																
Butter		B	A		A			D		D				B		B	A		B				**A**	**A**		**A**	**A**		B	A	D	A
Buttermilk	A	A	A	A	A			D		D				B	A	A	A	A	B				**A**	**A**		**A**	**A**		A		D	A
Butylene	A	B	A		A			A	A	A	A		B		A		A					**A**	**A**	**A**		**A**	**B**			D	D	A
Butyl Acetate[1]			C		A		**A**	A			A	**C**	D	D	A	D	A			C	**D**	**A**	**A**	**A**		**D**	**B**	D	D	B	D	A
Butyric Acid[1]	B	B	A	A	B	**A**	**A**	C		D		**A**	B		A	A	C	D	D		**A**		**A**	**D**		**D**	**D**		D	B		A
Calcium Bisulfate	C	D	A		D			D	D	D			A	A	A			A								**A**	**A**	C	C		A	A
Calcium Bisulfide			B		C	**A**	**A**	C					A		A	A	D	A		B	**A**		**A**	**A**		**A**	**A**		A	D		A
Calcium Bisulfite		B	A		C	**A**	**A**	C				**A**	A		A	A		A			**A**			**A**		**A**	**A**		A		A	
Calcium Carbonate	B	A	A	A	C	**A**	**A**	C		D			A	A	A	A	A	A		B	**A**		**A**	**A**		**A**	**A**		A		A	A
Calcium Chlorate		B	A			**B**	**B**	C					A	A	A			A		A			**A**			**A**			A		A	A
Calcium Chloride	C	A	D	C	C	**A**	**A**	B		C		**A**	A	A	A	A	D	A	B	B	**A**	**A**	**A**	**A**	**B**	**A**	**A**	B	D	A	A	A
Calcium Hydroxide	B	A	A		C	**A**	**A**	B					A	A	A	A	B	A		B	**A**		**A**	**A**	**A**	**A**	**A**	C	A	A	A	A
Calcium Hypochlorite	D	D	C	C	C	**A**	**B**	D		D		**A**	D		A	A	D	D		B	**A**		**A**	**A**		**A**	**B**	C	D	A	C	A
Calcium Sulfate	B	A	A	A	B	**A**	**B**	B				**A**	A	A	A	A	A	A	C	B	**A**	**A**	**A**	**A**		**A**	**A**		D		C	A
Calgon		A	A					C		D						A	B				**A**		**A**	**A**		**A**	**A**		A			A
Cane Juice[2]		A	A		B			B	C	A			A				A	A			**D**		**A**	**A**			**A**		A		A	A
Carbolic Acid (See Phenol)																																
Carbon Bisulfide[2]	B	A	A	A	A			C		B			D	D			A	A			**D**		**A**	**A**	**A**	**A**	**D**		D	D	D	A
Carbon Dioxide (wet)		A	A		C		**A**	C	C	C					A								**A**	**A**								
Carbon Disulfide[2]		B	A		C			C	C	B	C		D	C	A	D	A	A		D	**D**	**A**	**A**	**B**		**A**	**D**		D	D	D	A
Carbon Monoxide		A	A		A								A			B	A	A		B	**A**		**A**	**A**		**A**	**A**	B	B	A	C	A
Carbon Tetrachloride[2] [1]	B	B	B	A	C	**A**	**A**	C	A	C	D	**A**	C	C	A	D	A	A	D	D	**D**	**C**	**A**	**A**	**A**	**A**	**C**	C	D		D	C
Carbonated Water	B	A	A	A	A			B		D			A			A	A	A			**A**		**A**	**A**		**A**	**A**		A	A		A
Carbonic Acid	B	A	B	A	A		**A**	B		D		**A**	A		A	A	A	A		B	**A**		**A**	**A**		**A**	**B**	B	A	A	A	A
Catsup		A	A	A	D			C		D			A			A	B	A	B		**A**		**A**	**A**		**A**	**A**		C			A
Chloracetic Acid[2]	D	D	D	D	C	**A**	**A**	D		D		**D**	A	D	A		D	D		D	**D**		**A**	**A**		**D**	**D**		D	B	D	B
Chloric Acid		D	D										D		A												**D**		D			D
Chlorinated Glue		A	A		D			C		D						C		C	D					**A**		**A**	**C**		D	B	D	A

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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.**

	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Chlorine, Anhydrous Liquid		D	D	D	D	**D**	**A**	D		C			D	B	A	A	D	D		D	**D**	**C**	**A**	**D**		**A**	**D**		D	B	D	B
Chlorine (dry)	B	A	A		D	**D**	**A**	A	B	A					A							**C**	**A**	**A**		**D**			D		D	D
Chlorine Water	D		D		D	**A**	**B**	D	D	D		**A**	A		A	C		D			**D**	**C**	**C**	**A**		**A**	**D**	C	D			
Chlorobenzene (Mono)	A	A	A		B		**A**	B		B	C	**A**	D	D	A	D	A	A	D	D	**D**	**A**	**A**	**A**		**A**	**D**		D	D	D	A
Chloroform	A	A	A	A	D	**A**	**A**	B		D	C	**C**	D	C	A	D	A	C	D	D	**D**	**C**	**A**	**A**	**A**	**A**	**D**	D	D	D	D	A
Chlorosulfonic Acid[1]	D	D		D	D	**A**	**B**	D			D	**D**	C	C	A	D	D	D		D	**D**	**D**		**C**		**D**	**D**	D	D	D	D	C
Chlorox (Bleach)		A	A		C		**A**	A		D	C		A	B	A	A	D	D	B		**D**	**C**	**A**	**A**		**A**	**C**		B	B	D	A
Chocolate Syrup		A	A		A					D						A	A	A			**A**			**A**		**A**	**A**		A		D	A
Chromic Acid 5%		A	A	B	C	**A**	**A**	D	D	D			A	B		C	D	D	B	B	**A**	**A**	**D**	**C**		**A**	**D**	C	D	A	B	B
Chromic Acid 10%		B				**A**	**A**		D			**A**	A		A	A		D			**A**			**A**		**A**	**D**		D			C
Chromic Acid 30%		B				**A**	**A**		D			**B**	A		A	D		D			**A**			**A**		**A**	**D**		D			D
Chromic Acid 50%	C	B	B		C	**A**	**A**	D	D	D		**C**	B	B	A	D	D	D	C	C	**B**	**B**	**D**	**A**		**A**	**D**		D	A	D	C
Cider		A	A	A	B			A		D			A			A	B			B			**A**	**A**		**A**	**A**		A			A
Citric Acid		A	A	A	C	**A**	**A**	D	C	D		**A**	A		A	A	B	C	C	B	**B**		**A**	**A**	**B**	**A**	**D**	C	A	A	A	A
Citric Oils		A	A		C			B								A	B				**A**		**A**	**A**		**A**	**A**	C	D			A
Coffee	A	A	A	A	A			B		C					A	A	A	A			**A**		**A**	**A**		**A**	**A**		A		A	A
Copper Chloride	C	D	D	B	D	**A**	**A**	D		D		**A**	A	B	A	A	B	D		B	**A**	**A**		**A**		**A**	**A**		A	A	A	A
Copper Cyanide		A	A	A	D	**A**	**A**	C		D		**A**	A		A	A	B	A		B	**A**	**A**	**A**	**A**		**B**	**B**		A	A	A	C
Copper Fluoborate		D	D		D		**B**	D		D			A		A		B			A			**A**			**A**	**B**		A		A	A
Copper Nitrate	B	A	A	B	D	**A**	**A**	D				**A**	A		A	A	B	D		B	**A**		**A**	**A**		**A**	**A**		A			A
Copper Sulfate (5% Solution)		A	A	A	D	**A**	**A**	D	D	D			A		A	A	B	D		B	**A**	**A**	**A**	**A**		**A**	**A**	C	A		C	A
Copper Sulfate	B	B				**A**	**A**	C	D			**A**	A		A	A		C			**A**			**A**		**B**	**B**		A	A		A
Cream		A	A		A			C		D						A	A	A			**A**		**A**	**A**		**A**	**A**		C			A
Cresols[2]		A	A		B			D	C				D	D			D		D	D	**C**	**A**	**A**	**A**		**D**	**D**	D	D	D	D	A
Cresylic Acid	B	A	A		C	**A**	**B**	C				**B**	B	D	A		D	D		C			**A**	**A**		**A**	**D**		D	D	D	A
Cyclohexane		A			A	**A**		A			A			D		D	A				**D**	**A**	**A**	**A**		**A**	**A**	D	D	D	D	A
Cyanic Acid		A															D										**C**		D			A
Detergents		A	A		A			A			A		A			A	B	A	B	B	**A**	**A**	**A**	**A**		**A**	**A**		B	A	C	A
Dichlorethane		A	A				**A**						D	D	A			A		D						**B**			D		D	A
Diesel Fuel	A	A	A		A			A		A	A					D	A				**D**	**A**	**A**	**A**		**A**	**A**		D	D	D	A
Diethylamine	A	A			A			A					D		A	B	D				**C**		**A**	**A**		**D**	**B**		B	B	C	A
Diethylene Glycol		A						A								A	A	A	B	B			**A**	**A**		**A**	**A**	C	A	A	A	A
Diphenyl Oxide		A						A									A						**A**	**A**		**A**	**D**		D	D	D	A
Dyes		A	A		B			C								A	A									**A**			C			A
Epsom Salts (Magnesium Sulfate)	B	A	A	A	A	**A**	**B**	B					A			A	A				**A**		**A**	**A**		**A**	**A**		A		C	A
Ethane	A	A			A			A								D	A						**A**	**A**		**A**	**A**		B	D	D	A
Ethanolamine		A	A								C						D					**A**	**A**	**A**		**D**	**B**	C	B		C	A
Ether[3]	A	A	A	A	A		**B**	B	A		B		D	C		D	A	C				**A**	**A**	**A**	**A**	**C**	**D**		D	C	D	A
Ethyl Acetate[2]		A	A		B		**B**	B			C	**D**	D	D	A	D	A	A	D	C	**C**	**A**	**A**	**A**		**D**	**D**	C	D	B	D	A
Ethyl Chloride		A	A	A	B	**A**	**B**	B		C	D	**A**	D	D	A	D	A	A		D	**D**	**A**	**A**	**A**		**A**	**D**	D	C	A	A	A
Ethyl Sulfate		D															B						**A**	**A**		**A**	**A**					A
Ethylene Chloride[2]		A	A		C	**B**	**B**	A		C	C		D		A	D	A		D		**D**	**A**	**A**	**A**		**A**	**D**	D	D	C	D	A
Ethylene Dichloride		A	A		D	**A**	**B**	C			C		D	D	A	D	A	A		D	**A**	**A**	**C**	**A**		**A**	**D**	D	D	C	D	A
Ethylene Glycol[4]		A	A		A		**A**	B	B	B	C	**A**	A	B	A	A	A	A	B	B	**A**	**A**	**A**	**A**	**A**	**A**	**A**	C	A	A	A	A

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4. **Buna-N — Satisfactory for "O" Rings**
5. **Polyacetal — Satisfactory to 72° F.**
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	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Ethylene Oxide			A		A			A					D		A	A	A	A					**A**	**A**		**D**	**D**	D	D	C	D	A
Fatty Acids		A	A		B	**A**	**A**	C		D		**A**	A	B	A	B	A	A		B	**A**		**A**	**A**		**A**	**C**	C	B	C	C	A
Ferric Chloride		D	D	D	D	**A**	**B**	D	D	D		**A**	A	B	A	A	B	D		B	**A**	**A**	**A**	**A**		**A**	**D**	C	B	A	A	A
Ferric Nitrate		A	A	A	D	**A**	**A**	D				**A**	A		A	A	B	D		B	**A**	**A**	**A**	**A**		**A**	**A**	D	A	A	A	A
Ferric Sulfate		A	C	A	D	**A**	**A**	D	D	D		**A**	A	B	A	A	B	A	C		**A**	**A**	**C**	**A**		**A**	**B**	C	A		A	A
Ferrous Chloride		D	D		D	**A**	**B**	C		D		**A**	A	B	A	A	B	D		B	**A**	**A**	**A**	**A**		**A**	**B**	C	A		A	A
Ferrous Sulfate	B	A	C		D	**A**	**B**	C		D	D	**A**	A	B	A	A	B	D		B	**A**	**A**	**A**	**A**		**A**	**B**		A		A	A
Fluoboric Acid		D	B			**D**	**A**			D		**A**	A	B	A	B	B	C		B	**A**		**A**	**D**		**A**	**B**		A			A
Fluorine	D	D	D		D	**D**	**A**	D		D	D		C		C			D		C			**D**									D
Fluosilicic Acid			B		D	**D**	**B**			D		**A**	A	B	A	A	B	D		B	**A**		**A**	**D**		**B**	**A**		A			C
Formaldehyde 40%			A			**A**	**A**					**B**	B		A	A		D			**A**	**A**		**A**		**D**	**B**	B	A			A
Formaldehyde	A	A	A		A	**A**	**B**	A	B	D	A		A	B	A	D	A	A		B	**A**	**A**	**A**	**A**		**D**	**C**	B	D	B	C	A
Formic Acid[6]	C	A	B	B	D	**C**	**A**	C	C	D	D	**A**	D	B	A	A	D	D		B	**A**	**A**	**A**	**A**	**B**	**B**	**D**	C	D	A	C	B
Fruit Juice	A	A	A	A	B			B		D	D		A		D	A	B	A		B	**A**		**A**	**A**	**A**	**A**	**A**		A			A
Fuel Oils	A	A	A		A	**A**	**A**	B		C	B	**A**	A		A	A	A	A		D	**B**	**A**	**A**	**A**		**A**	**A**	C	B	D	D	A
Furan Resin		A	A		A			A		A	A				A		A					**A**		**A**		**A**	**D**		D		D	A
Furfural[1]	A	A	A		A		**B**	A			A	**D**	D		A	D	B	A	D	D	**D**	**A**	**A**	**A**		**D**	**D**	D	D	B	D	A
Gallic Acid	B	A	A		A		**A**	A		D	D		A	A	A			A								**B**	**A**					
Gasoline[1 4]	A	A	A	A	A	**D**	**A**	A		A	A	**A**	C		A	D	A	A	D	D	**C**	**A**	**A**	**A**	**A**	**A**	**A**	D	D	C	D	A
Gelatin	A	A	A	A	A		**A**	A	C	D	D		A		A	A	A	A			**A**		**A**	**A**		**A**	**A**		A	A	A	A
Glucose	A		A		A			A	A	B	B		A	B	A	B	A	A	B	B	**A**		**A**	**A**		**A**	**A**	B	A	A	A	A
Glue P.V.A.[1]	B	B	A		B	**A**		A			A		A	B	A		A	A					**A**	**A**		**A**	**A**		A			A
Glycerine	A	A	A	A	A	**A**	**A**	A	B	B	B	**A**	A	B	A	A	A	A	C		**A**		**A**	**A**		**A**	**A**	B	A	A	A	A
Cycolic Acid							**A**							A		A	C			B	**A**	**A**	**A**			**A**	**A**		A			A
Gold Monocyanide			A					A		D							A						**A**	**A**		**A**	**A**		A			A
Grape Juice		A	A		B			B		D			A			A	B		B	B			**A**	**A**		**A**	**A**		A			A
Grease[4]	A	A	A		A			B		A	A				A		A	A					**A**	**A**		**A**	**A**		D			A
Heptane[1]	A		A		A		**A**	A			B	**A**	A		A	D	A	A	C	D	**D**	**A**	**A**	**A**		**A**	**A**		B	D		A
Hexane[1]	A	A	A		A		**A**	B			B	**A**	C		A	D	A	A	D		**C**	**A**	**A**	**A**		**A**	**A**	B	B	D	D	A
Honey		A	A		A			A		A			A			A	A	A	B		**A**		**A**	**A**		**A**	**A**		A	A		A
Hydraulic Oils (Petroleum)[1]	A	A	A		A			B		A	A				A		A	A			**D**		**A**	**A**		**A**	**A**		B	D	D	A
Hydraulic Oils (Synthetic)[1]		A	A		A			A		A							A	A			**D**		**A**	**A**		**A**	**C**	D				A
Hydrazine		A	A							C							D						**A**			**A**	**B**	D	B	A	C	A
Hydrobromic Acid 20%			D			**A**	**A**					**A**	A		A	A		D			**A**			**B**		**A**	**D**		C			B
Hydrobromic Acid[4]	D	D	D	D	D	**A**	**A**	D		D	D	**A**	A	B	A	C	D	D		B	**B**		**A**	**A**		**A**	**D**	D	D	A	A	A
Hydrochloric/Muratic Acid (Dry gas)	D	C	A		D		**A**				D		A		A								**A**							A		A
Hydrochloric/Muratic Acid (20%)[4]		D	D	D	D	**C**	**B**	D		D		**A**	A	B	A	A	D	D	B	A	**A**	**D**	**A**	**A**	**D**	**A**	**C**		C	A	C	A
Hydrochloric/Muratic Acid (37%)[4]		D	D	D	D	**C**	**B**	D		D		**A**	A	B	A	A	D	D	C	A	**A**	**D**	**A**	**C**	**D**	**A**	**C**	C	C	C	D	A
Hydrochloric/Muratic Acid (100%)		D	D		D	**D**	**C**	D		D			A	A	A			D		A			**A**	**C**		**C**	**D**		C		A	A
Hydrocyanic Acid	A	A	A	C	A	**A**	**A**	D	D		C		A	B	A	A	B	A		B	**A**		**A**	**A**		**A**	**C**		B		A	A
Hydrocyanic Acid (Gas 10%)		D	D										A		A														C	A	C	A
Hydrofluoric Acid (20%)[1]		D	D	D	D	**D**	**B**	D		D			D	B	A	A	D	D		C	**A**	**C**	**B**	**C**	**D**	**A**	**D**		C	A	C	B
Hydrofluoric Acid (75%)[1 2]		C	D		D	**D**	**C**	D		D		**A**	C	B	A	D	D	D		C	**B**	**C**	**D**	**D**	**D**	**A**	**D**	D	D	C	C	C
Hydrofluoric Acid 100%	D	D	D		D	**D**	**B**	D		D	D		C	D	A					D		**C**	**D**	**D**			**D**		D		D	A

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	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Hydrofluosilicic Acid (20%)		D	D		D	**D**	**B**	A		D			D		A	B	D	D			**A**		**A**	**D**		**A**	**B**		B	A	A	C
Hydrofluosilicic Acid		D	D		C		**C**	D						C	A								**A**					D	A			
Hydrogen Gas	A	A	A		A			A		B	B	**A**	A		A											**A**						A
Hydrogen Peroxide 10%		C	C		A	**C**	**A**	D	D	D			A	A	A			D		A		**B**	**A**	**A**			**A**		D		C	D
Hydrogen Peroxide 30%			B			**B**	**A**		D				A		A			D			**A**	**C**				**A**	**D**		C			B
Hydrogen Peroxide		A	B	A	A	**B**	**A**	D	D	D	D	**C**	A	C	A	B	D	D		B	**A**	**C**		**A**	**A**	**A**	**D**	C	D	C	C	A
Hydrogen Sulfide, Aqueous Solution		D	A	C	C	**A**	**A**	D	C	D		**A**	A	B	A	A	D	D		B	**A**	**A**	**A**	**A**	**A**	**D**	**C**		B	A	D	A
Hydrogen Sulfide (dry)	A	C	A		D		**A**	D	C	B	B		A		A			D				**A**		**A**		**D**					A	A
Hydroxyacetic Acid (70%)					D	**B**							A				D						**A**	**A**		**A**	**A**		A	A		A
Ink	A	A	A		C			C		D	D					B	A	A		B			**A**	**A**	**A**	**A**	**A**		A			A
Iodine		D	D	D	D	**A**	**B**	D		D			D	B	A	A	C	D	D	D	**D**		**D**	**A**		**A**	**B**		D	B	D	A
Iodine (In Alcohol)			B			**D**	**A**						D		A	C		D			**B**			**A**		**A**	**D**		D			
Iodoform	B	C	A		A			C		C	B				A			A								**A**						
Isotane[2]					A											D	A				**D**			**A**		**A**	**A**				D	A
Isopropyl Acetate			B		C												A						**A**	**A**		**D**	**D**		D	B	D	A
Isopropyl Ether[2]	A		A		A			A			A				A	D	A				**D**		**A**	**A**		**D**	**B**		D	D	D	
Jet Fuel (JP#, JP4, JP5)	A	A	A		A			A		A	A	**A**	A		A	D	A	A			**D**	**A**	**A**	**A**		**A**	**A**	D	D	D	D	D	A
Kerosene[2]	A	A	A	A	A	**A**	**A**	A	A	A	B	**A**	A	D	A	D	A	A	B	D	**D**	**A**	**A**	**A**	**A**	**A**	**A**	D	D	A	D	A
Ketones	A	A	A		B	**A**	**A**	A		A	A	**D**	D	D	A	D	B	A		D	**D**	**A**	**C**	**A**		**D**	**D**		D	D	C	C
Lacquers	A	A	A		A			A	C	C	C			D		C	A	A			**A**		**A**	**A**		**D**	**D**		D		D	A
Lacquer Thinners			A			**A**	**A**		C				C		A	D		A			**B**			**A**			**D**		D	A		
Lactic Acid	A	A	B	C	C	**A**	**A**	D		D	D	**C**	A	B	A	A	B	C		B	**A**	**A**	**A**	**A**		**B**	**B**		A	B	A	A
Lard	B	A	A	A	A			A		A	C		A				A	A	C		**A**		**A**	**A**		**A**	**A**	C	B		D	A
Latex		A	A		A			A								A	A	A		B				**A**		**A**	**A**		C	A		A
Lead Acetate	B	A	A		D	**A**	**A**	C			D		A	B	A	A	A	A		B	**A**		**A**	**A**		**D**	**B**		D	A	A	A
Lead Sulfamate																	A				**A**					**A**	**B**	C	A	D	C	A
Ligroin[3]			A					A								D	A				**D**			**A**		**A**	**A**		B	A	D	A
Lime		A	A		C	**A**		A		A			A			A	D		C				**A**	**A**		**A**	**A**	C	B	D		A
Lubricants		A	A		A	**A**	**A**	B					A		A		A	A	B		**A**	**A**	**A**	**A**		**A**	**A**	C	D		D	A
Magnesium Carbonate		A	A	A			**B**						A			A	A			B	**A**			**A**			**A**		A	A		A
Magnesium Chloride	B	B	B	A	D	**A**	**A**	B	C	D	C		A	B	A	A	A	A		B	**A**	**A**		**A**		**A**	**A**		A	A	A	A
Magnesium Hydroxide	A	A	A		D	**A**	**A**	C	B	B	B	**A**	A		A	A	A	A		B	**A**	**A**	**A**	**A**		**A**	**B**		B		C	A
Magnesium Nitrate		A	A	A		**A**	**A**						A		A	A	A	A		B	**A**			**A**		**A**	**A**		A			A
Magnesium Oxide		A	A														A							**A**			**A**		A	A		A
Magnesium Sulfate	B	B	A		B	**A**	**B**	B	B	C	B		A	B	A	A	A	A		B	**A**	**A**	**A**	**A**		**A**	**A**		A	D	C	A
Maleic Acid	C	A	A	A	B	**A**	**A**	C			B		A	B	A	A	C	A			**C**		**A**	**A**		**A**	**D**		A	D	D	A
Maleic Anhydride							**A**										C						**A**	**A**		**A**	**D**		D		D	A
Malic Acid	B	A	A		C		**A**	D			D		A		A			A						**A**		**B**			A		A	
Mash		A	A					A								A	A						**A**	**A**			**A**		A			A
Mayonnaise	A	A	A		D			D		D	D				A	A	A	A	B		**A**		**A**	**A**		**A**	**A**					A
Melamine		D	D					D									D						**A**	**A**			**C**					A
Mercuric Chloride (Dilute Solution)	D	D	D	D	D	**A**	**B**	D	D	D	D		A	A	A	A	A	A		B	**A**		**A**	**A**		**A**	**A**		A	A	A	A
Mercuric Cyanide	A	A	A		D	**A**		D			D		A		A	A	A			B	**A**		**A**	**A**			**A**					A
Mercury	A	A	A	A	C	**C**	**A**	D	D	A	A		A		A	A	A	A		B	**A**		**A**	**A**		**A**	**A**		A	A	A	A

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D — Severe effect — Not recommended

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.**

	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Methanol (See Alcohol Methyl)																																
Methyl Acetate	A		A		A		**A**	A			B				A		A		D				**A**	**A**		**D**	**D**	D	B	B	D	
Methyl Acrylate																	A						**A**	**A**		**D**	**D**		B	B	D	A
Methyl Acetone	A		A		A			A		A	A				A	D	A							**A**		**D**	**D**		D			C
Methyl Alcohol 10%	A		A		C		**A**	C			B		A		A			A									**B**				A	A
Methyl Bromide																	A			D			**A**	**A**		**A**	**B**		D	D	D	B
Methyl Butyl Ketone			A		A											D	B						**A**	**A**		**D**	**D**	C	D	A	D	B
Methyl Cellosolve					A			A								C	B				**A**		**A**	**A**		**D**	**D**		D	B	D	C
Methyl Chloride		A	A		D	**A**	**A**	A				**A**	D		A	D	A	A		D	**D**		**A**	**A**		**A**	**D**	D	D	C	D	A
Methyl Dichloride																D	A						**A**	**A**		**A**	**D**		D	D	D	A
Methyl Ethyl Ketone		A	A		A	**A**	**A**	A				**D**	D		A	D	B	A	D	D	**A**	**A**	**A**	**A**		**D**	**D**	C	D	A	D	B
Methyl Isobutyl Ketone[2]			A			**A**	**A**					**D**	D		A	D	B	A	D		**C**	**A**	**A**	**A**		**D**	**D**	C	D	C	D	B
Methyl Isopropyl Ketone			A													D	B	A					**A**	**A**		**D**	**D**	B	D	B	D	B
Methyl Methacrylate																	A						**A**	**A**		**D**	**D**		D	D	D	A
Methylamine	A		A		A			D		B	B					B	D						**A**	**A**			**B**					A
Methylene Chloride	A	A	A		A	**A**	**A**	A	C		B	**D**	D		A	D	A	D		D	**D**		**A**	**A**		**D**	**D**		D	D	D	A
Milk	A	A	A	A	A			C	C	D	D		A			A	A	A	B	B	**A**		**A**	**A**	**A**	**A**	**A**	B	A	A	A	A
Molasses	A	A	A	A	A			A	B	A	A		A			B	A	A		B	**A**		**A**	**A**	**A**	**A**	**A**		A			A
Mustard	A	A	A	A	B			B		C	B		A			B	B	A	B		**A**		**A**	**A**		**A**	**B**	C	C			A
Naphtha	A	A	A	A	A	**A**	**A**	B		B	B	**A**	A	C	A	D	A	A	C	D	**A**	**A**	**A**	**A**		**A**	**B**	D	D	D	D	A
Naphthalene	B	A	B		B	**A**	**A**	C		B	A	**A**	D		A	D	A			D	**B**	**A**	**A**	**A**		**B**	**D**		D	D	D	A
Nickel Chloride		A	B		D	**A**	**A**	D		D		**A**	A	B	A	A	B	A		B	**A**		**A**	**A**		**A**	**A**		A	A	A	A
Nickel Sulfate	B	A	B		D	**A**	**B**	C	C	D	D	**A**	A	A	A	A	B	A		B	**A**		**A**	**A**		**A**	**A**		A	A	C	A
Nitric Acid (10% Solution)	A	A	A	A	D	**A**	**A**	D		D	D	**A**	A	B	A	A	D	D	C	B	**A**	**D**	**C**	**B**	**D**	**A**	**D**		D	B	D	A
Nitric Acid (20% Solution)		A	A	A	D	**A**	**A**	D		D		**B**	A	B	A	A	D	D	D	B	**A**	**C**	**D**	**C**	**D**	**A**	**D**		D	D	D	B
Nitric Acid (50% Solution)		A	A	A	D	**A**	**A**	D		D		**B**	A	B	A	A	D	D	D	C	**D**	**C**	**D**	**A**		**A**	**D**		D	D	D	D
Nitric Acid (Concentrated Solution)		D	B	A	B	**A**	**B**	D	D	D			D	C	A	D	D	D	D	D	**D**	**C**	**D**	**A**	**C**	**B**	**D**		D	D	D	D
Nitrobenzene[2]	B	A	B		C	**A**	**B**	D		B	B	**D**	D	D	A	D	B	C	D	D	**C**	**B**	**A**	**A**		**D**	**D**	D	D	D	D	B
Oils: Aniline		A	A		C	**A**	**D**	A		A			D		A	D	D	C	D		**A**		**A**	**A**		**A**	**D**		D	B	D	A
Anise		A	A														A						**A**	**A**					D			A
Bay		A	A														A						**A**	**A**		**A**			D			A
Bone		A	A					A									A						**A**	**A**		**A**	**A**		D			A
Castor		A	A		A			A		A			A				A						**A**	**A**	**A**	**A**	**A**		A	B	A	A
Cinnamon		A	A												A		A				**A**		**A**	**A**		**D**			D			A
Citric		A	A					D		D							A	A			**A**		**A**	**A**		**A**	**A**		D			A
Clove		A	A														A	A			**B**		**A**	**A**			**A**					A
Coconut		A	A		B			A		A							A	A			**A**		**A**	**A**		**A**	**A**		A	A	D	A
Cod Liver		A	A		B												A	A	C		**A**		**A**	**A**		**A**	**A**		B	A	D	A
Corn		A	A	A	B			B		A							A	A	C		**A**		**A**	**A**		**A**	**A**		D	C	D	A
Cotton Seed	B	A	A	A	B			B		A	C		A		A		A	A	C		**A**	**A**	**A**	**A**		**A**	**A**		D	C	D	A
Creosote[2]		A	A		A												D				**D**		**A**	**A**		**A**	**A**		B	D	D	A
Diesel Fuel (2D, 3D, 4D, 5D)		A	A		A			A								D	A	A			**A**	**A**	**A**	**A**		**A**	**A**		D	D	D	A
Fuel (1, 2, 3, 5A, 5B, 6)		A	A		A	**A**	**A**	A					A		A	D	A				**B**		**A**	**A**		**A**	**B**		D	D	D	A
Ginger		A	A														A						**A**	**A**		**A**	**A**		A			A

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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.**

	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Oils: Hydraulic (See Hydraulic)																																
Lemon		A	A														A				**D**		**A**	**A**		**A**			D			A
Linseed		A	A	A	A			A		A			A	B			A	A	C		**A**		**A**	**A**	**A**	**A**	**A**		D	D	D	A
Mineral	A	A	A	A	A			A		A	B		A			B	A	A			**B**	**A**	**A**	**A**	**A**	**A**	**A**		B	D	D	A
Olive	A	A	A		A			B		A	B		A		A		A	A			**A**		**A**	**A**		**A**	**A**	C	B		D	A
Orange		A	A												A		A	A			**A**		**A**	**A**		**A**	**A**		D			A
Palm		A	A		A			B					A				A	A					**A**	**A**		**A**	**A**		D			A
Peanut[3]		A	A		A			A		A			A				A				**D**		**A**	**A**		**A**	**A**		D		D	A
Peppermint[2]		A	A					A									A				**D**		**A**	**A**		**A**	**D**		D			A
Pine	A	A	A		A			D		C	B		A		A		A						**A**	**A**		**A**	**A**		D		D	A
Rape Seed		A	A					A					A				A						**A**	**A**		**A**	**B**		D		D	A
Rosin		A	A		A												A	A			**A**		**A**	**A**		**A**	**A**					A
Sesame Seed		A	A		A			A		A			A				A						**A**	**A**		**A**	**A**		D			A
Silicone		A	A					A		A						A	A	A			**A**		**A**	**A**	**A**	**A**	**A**		A		A	A
Soybean		A	A		A			B		A			A				A	A			**A**		**A**	**A**		**A**	**A**		D		D	A
Sperm		A	A					A					A				A						**A**	**A**		**A**	**A**		D			A
Tanning		A	A														A						**A**	**A**		**A**	**A**		D			A
Turbine		A	A		A			A		A			A				A		C				**A**	**A**		**A**	**A**		D		D	A
Oleic Acid	B	A	A	B	B		**B**	B	C	C	C		A	C	A	C	B	A	B	D	**C**		**A**	**A**		**D**	**B**	D	D	D	D	A
Oleum 25%							**A**					**B**	D		A	D								**A**		**A**	**D**	D	D	D		D
Oleum	B		A		B			C	C		B	**D**	D		A		D				**D**			**A**		**A**	**C**	D	D	D	D	A
Oxalic Acid (cold)	C	A	B	A	C	**C**	**B**	B	C	D	D		A	B	A	C	C	D		A	**A**		**A**	**A**		**A**	**B**	C	B	A	C	A
Paraffin	A	A	A	A	A			A		B	B	**A**	A		A	B	A	A	B		**A**		**A**	**A**		**A**	**A**					A
Pentane	A	C	C		A		**B**	A		B	B				A	D	A	A	D				**A**	**A**		**A**	**A**		B	D	D	A
Perchloroethylene[2]	B	A	A		A			C		B	B	**A**			A	D	A		D		**D**	**A**	**A**	**A**		**A**	**C**	D	D	D	D	A
Petrolatum	A		A		B			B		C	C				A	D	A	A	B				**A**	**A**		**A**	**A**		B	A	D	A
Phenol 10%	B	A	A		A		**B**	C		B	D		A	C	A			D				**A**				**B**	**D**		C	D	C	C
Phenol (Carbolic Acid)	B	A	A	A	B	**C**	**A**	B	D	D	D	**A**	A	C	A	C	D	D		D	**B**	**A**	**A**	**D**	**A**	**A**	**D**		D	D	D	B
Phosphoric Acid (40% Solution)		B	A	A	D	**A**	**A**	D	D	D			A	B	A	A	D	D	C	B	**A**	**A**	**B**	**C**	**D**	**A**	**D**		D	B	C	A
Phosphoric Acid (40% - 100% Solution)		C	B	B	D	**B**	**A**	D	D	D			A	B	A	A	D	D	D	C	**A**	**A**	**B**	**D**	**D**	**A**	**D**		D	B	C	C
Phosphoric Acid (Crude)		D	C	C	D	**C**	**A**	D	D	D	D	**A**			A		D	D	D	C		**A**	**C**	**D**		**A**	**D**		D	B		A
Phosphoric Anhydride (Dry or Moist)		A	A						D				D	D	A								**A**			**D**	**D**		D		A	
Phosphoric Anhydride (Molten)		A	A		D			D	D				D		A			A		D						**D**	**C**		D		D	A
Photographic (Developer)		C	A	C	C	**A**	**A**			D			A			A	C			B	**A**		**A**	**A**		**A**	**A**		A			A
Phthalic Anhydride	B	A	B		B		**A**	B		C	C				A			A								**A**	**C**					
Picric Acid	B	A	A		C		**A**	D	D	D	D		A	A	A			A		A						**A**	**A**	D	A		A	A
Plating Solutions **Antimony Plating 130° F**			A			**A**	**A**						A		A	A		D			**A**			**A**		**A**	**A**	D	A			B
Arsenic Plating 110° F			A			**A**	**A**						A		A	A		A			**A**			**C**		**A**	**A**	D	A			B
Brass Plating **Regular Brass Bath 100° F**			A			**A**	**A**						A		A	A		A			**A**			**C**		**A**	**A**	D	A			B
High Speed Brass Bath 110° F			A			**A**	**A**						A		A	A		A			**A**			**D**		**A**	**A**	D	A			B
Bronze Plating **Copper Cadmium Bronze Bath R.T.**			A			**A**	**A**						A		A	A		A			**A**			**C**		**A**	**A**	D	A			B
Copper-Tin Bronze Bath 160° F			A			**A**	**A**						D		A	A		A			**A**			**D**		**A**	**A**	D	B			C
Copper-Zinc Bronze Bath 100° F			A			**A**	**A**						A		A	A		A			**A**			**C**		**A**	**A**		A			B
Cadmium Plating **Cyanide Bath 90° F**			A			**A**	**A**						A		A	A		A			**A**			**C**		**A**	**A**		A			B

A — No effect — Excellent
B — Minor effect — Good
C — Moderate effect — Fair
D — Severe effect — Not recommended

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.**

	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	TITANIUM	HASTELLOY C	Cast Bronze	Brass	Cast Iron	Carbon Steel	KYNAR	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	POLYPROPYLENE	RYTON	CARBON	CERAMIC	CERAMAGNET "A"	VITON	BUNA N (NITRILE)	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Cadmium Plating																																
Fluoborate Bath 100° F			A			**D**	**A**						A		A	A		D			**A**			**D**		**A**	**B**		C			B
Chromium Plating																																
Chromic-Sulfuric Bath 130° F			C			**A**	**A**						A		A	D		D			**A**			**A**		**C**	**D**		D			D
Fluosilicate Bath 95° F			C			**C**	**A**						A		A	D		D			**A**			**B**		**C**	**D**		D		D	D
Fluoride Bath 130° F			D			**C**	**A**						A		A	D		D			**A**			**B**		**C**	**D**		D			D
Black Chrome Bath 115° F			C			**A**	**A**						A		A	D		D			**A**			**A**		**C**	**D**		D			D
Barrel Chrome Bath 95° F			D			**C**	**A**						A		A	D		D			**A**			**A**		**C**	**D**		D			D
Copper Plating (Cyanide)																																
Copper Strike Bath 120° F					A	**A**	**A**								A	A								**C**		**B**			A			
Rochelle Salt Bath 150° F			A			**A**	**A**						D		A	A		A			**A**			**D**		**A**	**A**		B			C
High Speed Bath 180° F			A			**A**	**A**						D		A	A		A			**A**			**D**		**A**	**A**		B			C
Copper Plating (Acid)																																
Copper Sulfate Bath R.T.			D			**A**	**A**						A		A	A		D			**A**			**D**		**A**	**A**		A			D
Copper Fluoborate Bath 120° F			D			**D**	**A**						A		A	A		D			**A**			**D**		**A**	**B**		C			D
Copper (Misc.)																																
Copper Pyrophosphate 140° F			A			**A**	**A**						A		A	A		A			**A**			**B**		**A**	**A**		A			B
Copper (Electroless) 140° F								D					A		A	A		A			**A**			**D**		**A**	**D**		D			B
Gold Plating																																
Cyanide 150° F			A			**A**	**A**	C					D		A	A		A			**A**			**B**		**A**	**A**		A			D
Neutral 75° F			C			**A**	**A**						A		A	A		A			**A**			**A**		**A**	**A**		A			A
Acid 75° F			C			**A**	**A**						A		A	A		A			**A**			**A**		**A**	**A**		A			A
Indium Sulfamate Plating R.T.			C			**A**	**A**						A		A	A		D			**A**			**A**		**A**	**A**		A			A
Iron Plating																																
Ferrous Chloride Bath 190° F			D			**A**	**D**						D		A	A		D			**C**			**A**		**A**	**B**		D			D
Ferrous Sulfate Bath 150° F			C			**A**	**A**						D		A	A		D			**A**			**A**		**A**	**A**		B			D
Ferrous Am. Sulfate Bath 150° F			C			**A**	**A**						D		A	A		D			**A**			**A**		**A**	**A**		B			D
Sulfate-Chloride Bath 160° F			D			**A**	**D**						D		A	A		D			**A**			**A**		**A**	**B**		C			D
Fluoborate Bath 145° F			D			**D**	**B**						D		A	A		D			**A**			**D**		**A**	**B**		C			D
Sulfamate 140° F			D			**A**	**B**						A		A	A		D			**A**			**A**		**A**	**A**		A			A
Lead Fluoborate Plating			C			**D**	**A**						A		A	A		D			**A**			**D**		**A**	**B**		C			A
Nickel Plating																																
Watts Type 115 - 160° F			C			**A**	**A**						D		A	A		A			**A**			**A**		**A**	**A**		A			D
High Chloride 130 - 160° F			C			**A**	**A**						D		A	A		D			**A**			**A**		**A**	**A**		B			D
Fluoborate 100 - 170° F			C			**D**	**A**	D					D		A	A		D			**A**			**D**		**A**	**B**		C			D
Sulfamate 140° F			C			**A**	**A**						A		A	A		A			**A**			**A**		**A**	**A**		A			A
Electroless 200° F													D		A	D		D			**D**			**A**		**A**	**D**		D			B
Rhodium Plating 120° F			D			**D**	**D**						A		A	A	D	D			**A**			**A**		**A**	**A**		B			A
Silver Plating 80 - 120° F			A			**A**	**A**						A		A	A		A			**A**			**B**		**A**	**A**		A			A
Tin-Fluoborate Plating 100° F			C			**D**	**A**						A		A	A		D			**A**			**D**		**A**	**B**		C			A
Tine-Lead Plating 100° F			C			**D**	**A**						A		A	A		D			**A**			**D**		**A**	**B**		C			A
Zinc Plating																																
Acid Chloride 140° F			D			**A**	**D**						A		A	A		D			**A**			**A**		**A**	**A**		A			A
Acid Sulfate Bath 150° F			C			**A**	**A**						D		A	A		D			**A**			**A**		**A**	**A**		B			D
Acid Fluoborate Bath R.T.				C		**D**							A		A	A		D			**A**			**D**		**A**	**B**		C			A
Alkaline Cyanide Bath R.T.				A		**A**	**A**						A		A	A		A			**A**			**D**		**A**	**A**		A			A
Potash		A		A	C		**A**	C		B			A	B		A	B	A		B	**A**		**A**	**A**	**A**	**A**	**A**		B		B	A
Potassium Bicarbonate		A		B	C	**A**	**B**	B		D		**A**	A		A	A	C	A	C	B	**A**	**A**	**A**	**A**		**A**	**A**		A		B	A
Potassium Bromide	A	A		B	C	**A**	**B**	C		D	D	**A**	A		A	A	A	C		B	**A**	**C**	**A**	**A**		**A**	**A**		A	A	B	A

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2. **Polypropylene — Satisfactory to 72° F.**
3. **Polypropylene — Satisfactory to 120° F.**
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5. **Polyacetal — Satisfactory to 72° F.**
6. **Ceramag — Satisfactory to 72° F.**

	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Potassium Carbonate	B	A		A	C	**A**	**A**	C		B	B	**A**	A	B	A	A	B	A		B	**A**	**A**	**A**	**A**	**A**	**A**	**B**		A		B	A
Potassium Chlorate	B	A	A	A	B	**A**	**B**	B		B	B	**A**	A	B	A	A	B	D		B	**A**	**A**	**A**	**A**		**A**	**A**		A		B	A
Potassium Chloride	C	A	A	B	B	**A**	**A**	C	C	B	B	**A**	A	A	A	A	A	B	C	B	**A**	**A**	**A**	**A**		**A**	**A**		A	A	A	A
Potassium Chromate			B	B	A		**B**	A		A			A			A	C			B		**A**	**A**	**D**		**A**	**A**		A		B	C
Potassium Cyanide Solutions	B	A	B	A	D	**A**	**A**	D		B	B	**A**	A		A	A	C	A		B	**A**	**A**	**C**	**A**		**B**	**A**		A	A	A	A
Potassium Dichromate	B	A	A	A	A	**A**	**B**	C		B	C	**A**	A		A	A	C	D		B	**A**	**A**	**A**	**A**		**B**	**A**		A	A	A	A
Potassium Ferrocyanide	B	A		A	C		**B**	A			C		A		A			A		A							**D**				A	A
Potassium Hydroxide (50%)	A	B	B	B	D	**C**	**A**	D	D	C	A	**D**	A	B	A	A	D	A	C	B	**A**	**A**		**D**	**A**	**D**	**B**	C	A	A	C	A
Potassium Nitrate	B	A	B	A	B	**A**	**B**	B			B	**A**	A	C	A	A	B	C		B	**A**	**C**	**A**	**A**		**B**	**A**		A	A	A	A
Potassium Permanganate	B	A	B	B	B	**B**	**B**	B		B	B	**A**	A		A	A	C	D	C	B	**B**	**A**	**A**	**A**		**B**	**A**		A		B	B
Potassium Sulfate	B	A	B	B	A	**A**	**A**	B	B	B	B	**A**	A	A	A	A	B	C		B	**A**	**A**	**A**	**A**		**A**	**A**	C	A	A	C	A
Potassium Sulfide	A	A		A	B		**B**	B		B	B		A		A												**A**					
Propane (Liquified)[1] [2]	A	A		A	A			A	A		B		D		A	D	A	A			**D**		**A**	**A**		**A**	**A**	D	B	D	D	A
Propylene Glycol	B	B		A	A			B		B	B				A		B	B	B	B			**A**	**A**		**A**	**A**		C			A
Pyridine		C		B	B					B	A	**D**		D	A	D	D			C	**B**	**A**	**A**	**A**		**D**	**D**		D	B	D	A
Pyrogallic Acid	B	A	A	A	B		**A**	B		B	B		A		A		D	A					**A**	**A**		**A**	**A**					A
Rosins	A	A	A	A	A		**B**	A	C		C				A		B	A			**A**		**A**	**A**			**A**					A
Rum		A		A									A			A	A	A			**A**		**A**	**A**		**A**	**A**		A			A
Rust Inhibitors		A		A				A		A							A				**A**		**A**	**A**		**A**	**A**		C			A
Salad Dressing		A		A	B			B		D			A			A	A	A			**A**		**A**	**A**		**A**	**A**					A
Sea Water	A	A	C	A	C	**A**		C			D		A		A	A	A	A		B	**A**		**A**	**A**	**A**	**A**	**A**	B	B	A	A	A
Shellac (Bleached)	A	A		A	A			A	B	B	A				A		A	A			**A**			**A**			**A**					A
Shellac (Orange)	A	A		A	A			A	C	C	A				A		A	A			**A**			**A**			**A**					A
Silicone		B		A	B			A								A	A	A			**A**		**A**	**A**		**A**	**A**	B	A	A	A	A
Silver Bromide		C	C	B	D											A	C						**A**									A
Silver Nitrate	B	A	B	A	D	**A**	**A**	D		D	D	**A**	A	B	A	A	C	A		B	**A**		**A**	**A**		**A**	**C**		A	C	A	A
Soap Solutions[1]	A	A	A	A	C	**A**	**B**	B		B	A		B	B	A	A	A	A		B	**A**	**A**	**A**	**A**	**A**	**A**	**A**	B	B		C	A
Soda Ash (See Sodium Carbonate)																																
Sodium Acetate	B	A	A	B	B	**A**		B		C	C	**A**	A		A	A	B	A		B	**A**		**A**	**A**		**D**	**D**		C		A	A
Sodium Aluminate	B			A	C	**B**	**B**	B			C				A	A	B	A				**A**	**A**	**A**		**A**	**A**		A	A	B	A
Sodium Bicarbonate	B	A	A	A	A	**A**		B	A	C	C	**A**	A	B	A	A	B	A	B	B	**A**	**A**	**A**	**A**	**A**	**A**	**A**	C	A	A	A	A
Sodium Bisulfate	A	A		A	D	**B**	**B**	C	C	D	D	**A**	A	B	A	A	B	C	C	B	**A**	**A**	**A**	**A**		**B**	**A**	C	A		A	A
Sodium Bisulfite		A		A	A	**A**	**B**	C		D		**A**	A	B	A	A	B	D	B	B	**A**	**A**	**A**	**A**		**A**	**A**	C	A		A	A
Sodium Borate	B	A		A	C		**A**	A		C	C		C		A			A		A						**A**		B	A			
Sodium Carbonate	B	A	B	B	C	**A**	**A**	B	B	B	B	**A**	A	B	A	A	A	A	C	B	**A**	**A**	**B**	**A**		**A**	**A**		A	A	A	A
Sodium Chlorate	B	A		A	B	**A**	**B**	B			C	**A**	A	B	A	A	D	A		B	**A**	**A**	**A**	**A**		**A**	**D**		A		A	A
Sodium Chloride	B	A	C	B	C	**A**	**A**	B	C	B	C	**A**	A	B	A	A	A	A	B	B	**A**	**A**	**A**	**A**	**A**	**A**	**A**	C	A	A	B	A
Sodium Chromate	A	A	A		D		**B**	B		B	B				A	A	D	A			**A**	**A**	**A**	**B**		**B**	**A**		A			C
Sodium Cyanide	B	A		A	D	**A**		D	D	B	B	**A**	A		A	A	D	C		B	**A**	**A**	**A**	**A**		**A**	**A**	D	A	A	A	A
Sodium Fluoride	B	C		C	C	**A**	**A**	C		D	D		D	D	A			A		C						**B**	**D**		D		D	A
Sodium Hydrosulfite					A		**A**	C					C	A	A			A						**A**		**A**			A		A	
Sodium Hydroxide/Caustic Soda (20%)		A	A	A	D	**A**	**A**	C	D	A		**A**	A	B	A	A	D	C	C	B	**A**	**A**	**C**	**D**	**A**	**A**	**A**	D	B	A	A	A
Sodium Hydroxide/Caustic Soda (50%)		A	B		D	**A**	**A**	C	D	B		**D**	A	B	A	A	D	C	C	C	**A**	**B**	**C**	**D**	**A**	**D**	**D**	D	C		A	A
Sodium Hydroxide/Caustic Soda (80%)		A	D		D	**A**	**B**	C	D	C			A	B	A	A	D	C	C	C	**A**	**B**	**C**	**D**	**A**	**B**	**D**	D	C		B	A

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	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Sodium Hypochlorite/Bleach[3] (to 20%)		C	C	C	C	**A**	**A**	D	D	D			A	B	A	A	D	A		B	**C**	**C**	**D**	**A**	**B**	**A**	**C**	D	D	B	C	B
Sodium Hypochlorite/Bleach	D		D		D	**A**	**A**	D		D	D	**A**	A		A	A		A			**C**	**C**		**D**		**B**	**B**	C	A			A
Sodium Hyposulfate		A	A		D			D							A														C		C	C
Sodium Metaphosphate[2]	A		A		A			C	C	B	B				A		B	A			**D**		**A**	**A**		**A**	**A**		B	A	A	A
Sodium Metasilicate	A		A		B			B		C	C				A		D						**A**			**A**	**A**	D	A			A
Sodium Nitrate	B	A	A	A	A	**A**	**B**	B	C	A	B	**A**	A	B	A	A	B	A		B	**A**		**A**	**A**	**A**	**D**	**C**	D	B	A	C	A
Sodium Perborate	B		C		B			C	C	B	B				A	A	B	A			**A**		**A**	**A**		**A**	**B**	D	B	A	C	A
Sodium Peroxide	B	A	A		C		**B**	C	C	D	C		A		A		D	D					**A**	**A**		**A**	**C**	D	B	A	C	A
Sodium Polyphosphate (Mono, Di, Tribasic)		A	A		D	**A**	**A**	C							A	A	B						**A**	**A**		**A**	**A**		D	A	A	A
Sodium Silicate	B	A	B	A	C	**A**	**B**	C	C		B		A	B	A	A	C	A			**A**		**A**	**A**		**A**	**A**		A	A	A	A
Sodium Sulfate	B	A	A	C	B	**A**	**B**	B	B	A	B		A		A	A	B	A		B	**A**	**A**	**A**	**A**		**A**	**A**		A	A	C	A
Sodium Sulfide	B	A	B		D	**A**	**B**	D	D	A	B		A	B	A	A	B	A		B	**A**	**A**	**A**	**A**		**A**	**C**		A	A	C	A
Sodium Sulfite		C	C		C	**A**	**A**	C		A			A	A	A			D		A			**A**	**A**		**A**	**A**		A		A	A
Sodium Tetraborate			A										A			A	B						**A**	**A**		**A**	**A**					A
Sodium Thiosulphate ("Hypo")	A	A	A		B	**A**		D	D	C	B		A		A	A	C	A			**A**	**A**	**A**	**A**		**A**	**B**		A	A	C	A
Sorghum		A	A							A							A	A					**A**	**A**		**A**	**A**		A			A
Soy Sauce		A	A		A			A		D						A	A	A					**A**	**A**		**A**	**A**		A		D	A
Stannic Chloride	D	D	D		D	**A**	**B**	D		D	D	**A**	A		A	A	C	A		B	**A**			**A**		**A**	**A**	D	A	A	A	A
Stannic Fluoborate			A							D						A	C							**A**		**A**	**A**		A			A
Stannous Chloride	D	D	C		D	**A**	**A**	D		D	D		A	A	A			D		A						**B**	**C**	D	D		A	A
Starch	B	A	A		A			B		C	C		A		A	A	A	A		B			**A**	**A**		**A**	**A**		A			A
Stearic Acid[2]	B	A	A	A	B	**A**	**A**	C	C	C	C	**A**	A	B	A	A	A	A		B	**D**		**A**	**A**	**A**	**A**	**B**	D	B	B	C	A
Stoddard Solvent	A	A	A	A	A	**A**	**A**	A	A	B	B	**A**	A	D	A	D	A	A	B	D	**D**	**A**	**A**	**A**		**A**	**B**	D	D	D	D	A
Styrene	A	A	A		A			A			A				A	A	A						**A**	**A**		**B**	**D**	D	D	D	D	A
Sugar (Liquids)	A	A	A	A	A		**A**	A		B	B				A	A	A	A	B		**A**		**A**	**A**	**A**	**A**	**A**		B		A	A
Sulfate Liquors		C	C		B		**A**	C									D				**A**		**A**	**A**					C			A
Sulfur Chloride		D	D	D	D			C	D				A	C	A	A	D	A		A	**D**		**A**	**C**		**A**	**D**		D	D	D	C
Sulfur Dioxide[2]		A	A	C	A	**A**	**B**	B				**B**	D	B	A	D	B	D	D	C	**D**	**A**	**A**	**A**		**D**	**D**	C	B	A	D	A
Sulfur Dioxide (dry)	A	A	A		A		**A**	A	C	A	B		D		A			A		D			**A**	**A**		**D**			D		D	D
Sulfur Trioxide (dry)	A	A	C		A			B		B	B		A	B	A	D	D	D					**B**	**A**		**A**	**D**		D	B	C	A
Sulfuric Acid (to 10%)		D	C	C	C	**A**	**A**	D	D	D		**A**	A	B	A	A	D	D	B	B	**A**	**A**	**A**	**A**		**A**	**C**		D	D	C	A
Sulfuric Acid (10% - 75%)[2]		D	D	D	D	**C**	**B**	D	D	D		**A**	A	B	A	B	D	D	B	C	**A**	**B**	**A**	**A**	**C**	**A**	**D**		D	D	D	B
Sulfuric Acid (75% - 100%)			D			**D**	**B**		D			**A**	B		A	A		D			**B**	**C**		**A**		**A**	**D**		D			D
Sulfurous Acid	C	C	B	C	C	**A**	**B**	D		D	D		A	B	A	A	D	D		B	**A**		**B**	**A**		**A**	**C**	D	B	B	C	A
Sulfuryl Chloride													A		A									**A**								A
Syrup		A	A	A	A			D					A			A	A	A	B		**A**		**A**	**A**	**A**	**A**	**A**		B		A	A
Tallow		A	A		A											A	A	A		C			**A**	**A**		**A**	**A**					A
Tannic Acid	B	A	A	A	C	**A**	**B**	B		C	C	**A**	A	B	A	A	B	D		B	**A**		**A**	**A**	**A**	**A**	**D**	C	A	A	A	A
Tanning Liquors		A	A		C	**A**	**A**	A					A	B	A		B				**A**		**A**	**A**		**A**	**C**					A
Tartaric Acid	B	A	B	B	C	**A**	**B**	A	C	D	D	**A**	A	B	A	A	B	A		B	**A**		**A**	**A**		**A**	**D**	C	A		A	A
Tetrachlorethane			A			**A**	**A**						D		A	D	A	A			**A**		**A**	**A**		**A**	**D**			D	D	A
Tetrahydrofuran		A	A		D			D		D	A	**D**	D		A	D	A	A		D	**C**	**A**	**A**	**A**		**D**	**D**		D	B	D	A
Toluene, Toluol[3]	A	A	A		A	**A**	**A**	A	A	A	A	**A**	D	D	A	D	A	A	D	D	**D**	**A**	**A**	**A**	**A**	**C**	**D**	D	D	D	D	A
Tomato Juice	A	A	A		A			C		C	C				A	A	B	A	B		**A**	**A**	**A**	**A**		**A**	**A**		A			A

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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.**

	302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	**TITANIUM**	**HASTELLOY C**	Cast Bronze	Brass	Cast Iron	Carbon Steel	**KYNAR**	PVC (Type 1)	Tygon (E-3606)	Teflon	Noryl	Polyacetal	Nylon	Cycolac (ABS)	Polyethylene	**POLYPROPYLENE**	**RYTON**	**CARBON**	**CERAMIC**	**CERAMAGNET "A"**	**VITON**	**BUNA N (NITRILE)**	Silicon	Neoprene	Ethylene Propylene (EPM)	Rubber (Natural)	Epoxy
Trichlorethane		C	A		C	**A**	**A**	C		C					A	D	A						**A**	**A**		**A**	**D**	D	D	D	D	A
Trichlorethylene[2]	B	A	A		B	**A**	**A**	B	A	C	B	**A**	D		A	D	A	C	D	D	**D**	**C**	**A**	**A**	**C**	**A**	**D**	D	D	D	D	A
Trichloropropane			A					A								D	A		D				**A**	**A**		**A**	**A**		A			A
Tricresylphosphate			A			**B**	**A**	A					D		A	C	C						**A**	**A**		**B**	**D**		D	A		A
Triethylamine								A					A			B	D						**A**	**A**		**A**	**A**	D	B			A
Turpentine[3]	B	A	A		C		**A**	B	C	B	B	**A**	A	B	A	D	A	A		D	**B**	**A**	**A**	**A**		**A**	**D**		D	D	D	A
Urine		A	A		B			C		B			A			A	A	A		B	**A**		**A**	**A**		**A**	**A**		D	A		A
Vegetable Juice		A	A		A			C		D						A	A	A					**A**	**A**		**A**	**A**	B	D		D	A
Vinegar	A	A	A	A	D	**A**	**A**	B	B	C	D	**A**	A		A	A	B	A	B	B	**A**	**A**	**A**	**A**	**A**	**A**	**C**		B	A	C	A
Varnish (Use Viton for Aromatic)	A	A	A	A	A			A	B		C				A	D	A	A			**A**		**A**	**A**	**A**	**A**	**B**	C	D		D	A
Water, Acid, Mine		A	A		C			C	D	C			A	B		A	D	A	B		**A**	**B**	**A**	**A**		**A**	**A**		B		B	A
Water, Distilled, Lab Grade 7		A	A		B			A		D			A	B	A	A	A	A	A		**A**	**A**	**A**	**A**	**A**	**A**	**A**		B	A	A	A
Water, Fresh	A	A	A		A			A	C	B	D		A	B	A	A	A	A	A	A	**A**	**A**	**A**	**A**	**A**	**A**	**A**		B	A	A	A
Water, Salt		A	A		B			B	C	D			A	B		A	A	A			**A**	**A**	**A**	**A**	**A**	**A**	**A**		B	A	A	A
Weed Killers		A	A		C			C									A	A					**A**	**A**		**A**	**B**		C			A
Whey		A	A		B												A						**A**	**A**		**A**	**A**					A
Whiskey and Wines	A	A	A	A	D			B	B	D	D		A		A	A	A	A		B	**A**		**A**	**A**		**A**	**A**	B	A	A	A	A
White Liquor (Pulp Mill)		A	A				**A**	D		C			A		A	A	D	A			**A**		**A**	**A**		**A**	**A**		A			A
White Water (Paper Mill)		A	A					A									B	A			**A**		**A**	**A**		**A**			A			A
Xylene[2]	A	A	A		A		**A**	A	A	A	B	**A**	D		A	D	A	A	D	D	**D**	**A**	**A**	**A**	**A**	**A**	**D**	D	D	D	D	A
Zinc Chloride	D	D	B	B	D	**A**	**B**	D	D	D	D	**A**	A		A	A	C	A		B	**A**	**A**	**A**	**A**		**A**	**A**		A	A	A	A
Zinc Hydrosulphite			A		D			D		D						A	C					**A**	**A**	**A**			**A**		A	A		A
Zinc Sulfate	B	A	A	A	D	**A**	**B**	B	C	C	D	**A**	C	B	A	A	C	A		B	**A**	**A**	**A**	**A**		**A**	**A**		A	A	C	A

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NOTES