CORROSION-RESISTANT MATERIALS

Pumps to be used with corrosive liquids should be made of materials having the maximum possible resistance to corrosion. As there are no materials with equally good corrosion resistance for all application, the following tables are intended to give a general idea of the materials available for use with the more important chemical liquids. In practice, the liquids mentioned are seldom pure and the data given in the table should therefore only be regarded as a guide. The corrosion resistance of the materials may also be subject to considerable variation if the corrosive liquid contain other constituents, for example ferric chloride traces in commercial hydrochloric acid. In such cases, tests should be carried out either by the purchaser himself on a sample of the material which will be supplied by the maker, or 1 liter of the liquid should be sent to the works laboratory of the manufacturer, who will then be able to recommend the most suitable material.

Particular consideration apply when high pressure and temperatures are involved. The corrosive effect of chemical liquids on certain typical materials of construction are specified below;

A-No effect-Acceptable
B-Minor effect-Acceptable
C-Moderate effect-Questionable
D-Severe effect-Not Recommended

		302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	TITANIUM	HASTELLOY C	Cast Bronze	Brass	Cast Iron	Carbon Steel	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Acetaldehyde[5]	CH_3CHO	A	A	A	-	B	A	A	D	-	-	C	D	D	A	-	A	A	D	C	B	A	A	A	-	A	B	B	D	B	C	A
Acetamide		-	B	A	-	-	-	-	-	-	-	C	-	-	-	-	B	-	-	-	-	-	-	A	-	A	A	-	A	A	D	A
Acetate Solv[2]		A	B	A	B	B	-	-	A	C	B	A	B	D	A	-	-	A	-	B	D	-	A	A	-	D	D	-	D	-	-	A
Acetic Acid, Glaclal[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%		-	-	A	-	-	A	A	-	C	-	-	B	-	A	A	-	D	-	-	A	A	-	A	-	D	C	-	C	-	-	B
Acetic Acid 80%		-	-	A	-	-	A	A	-	C	-	-	D	-	A	B	-	D	-	-	B	-	-	A	-	D	C	-	D	-	-	B
Acetic Acid	CH_3COOH	-	B	A	B	B	A	A	C	C	D	C	A	B	A	A	D	D	C	B	A	A	A	A	-	C	C	-	C	B	C	A
Acetic Anhydride	$(CH_3CO)_2O$	B	A	A	B	B	A	A	C	D	B	D	D	D	A	D	D	D	D	A	A	A	A	A	-	D	A	C	B	B	C	A
Acetone[6]	CH_3COCH_3	A	A	A	B	A	A	A	A	A	A	A	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]	C_2H_2	A	A	A	A	A	-	-	B	-	A	A	B	-	-	-	A	A	-	-	D	A	A	A	-	A	A	C	B	A	C	A
Acrylonitrile	$CH_2=CHCN$	A	A	C	C	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	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	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	A	D	B	A	A	A
Isobutyl		-	A	A	-	B	A	A	A	C	-	A	-	-	-	A	A	A	B	-	-	-	A	A	-	A	C	B	A	A	A	A
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	A	-	A	A	A	A	-	-	A	-	A	A	-	A	A	B	A	A	A	A

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.

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Aluminum Chloride 20%	$AlCl_3$	-	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	$AlCl_3$	C	D	C	-	D	C	A	C	-	D	B	A	A	A	A	-	D	-	-	A	A	A	A	-	A	A	C	A	-	-	A
Aluminum Fluoride	AlF_3	-	D	C	D	-	D	B	-	-	-	A	A	-	A	A	C	D	-	B	A	-	A	-	-	A	A	C	A	-	C	A
Aluminum Hydroxide[6]	$Al(CH)_3$	-	A	A	A	A	-	-	A	-	D	A	A	-	A	A	B	A	-	-	A	-	A	A	A	A	A		A	-	A	A
Alum Potassium Sulfate (Alum), 10%		-	A	-	-	A	-	B	-	-	D	A	A	-	A	-	-	A	-	A	-	-	A	A	-	A	-	-	A	-	A	A
Alum 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	$Al_2(SO_4)_3$	-	C	C	A	A	A	A	C	C	D	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%	NH_3 10%	-	-	A	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	A	-	A	-	A	D	-	A	-	-	B
Ammonia, Anhydrous	NH_3	A	B	A	A	B	B	A	D	-	D	B	A	B	A	A	D	A	-	B	A	B	C	A	-	D	B	B	A	A	D	A
Ammonia, Liquids	NH_3	-	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	NH_4NO_3	-	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	$(NH_4)_2CO_3$	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	NH_4Cl	C	A	C	A	C	A	A	D	C	D	D	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	NH_4NO_3	A	A	A	A	B	A	A	D	D	A	D	A	B	A	A	C	D	-	B	A	A	A	A	-	A	A	C	A	A	A	A
Ammonium Oxalate		-	A	A	A	-	-	A	-	-	-	A	-	-	-	-	B	-	-	-	-	-	A	-	-	-	A	-	A	-	-	A
Ammonium Persulfate		-	A	A	A	C	A	A	A	-	D	A	A	-	A	A	D	D	-	-	A	-	A	A	-	C	A	-	A	A	A	A
Ammonium Phosphate, Dibasic	$NH_4\ H_2PO_4$	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	$(NH_4)_2SO_4$	C	A	B	A	B	A	A	B	C	C	C	A	D	A	A	B	D	-	B	A	A	A	A	-	D	A	B	A	A	A	A
Ammonium Thio-Sulfate	$(NH_4)_2\ S_2O_3$	-	-	A	-	-	A	-	-	-	D	A	-	-	-	-	B	-	-	-	-	-	A	A	-	-	A	-	A	-	-	A
Amyl-Acetate	$CH_3COOC_4H_{11}$	B	A	A	C	B	A	A	C	-	-	C	D	D	A	D	A	B	-	D	D	A	A	A	-	D	D	D	D	A	D	A
Amyl Alcohol	$C_5H_{11}OH$	-	A	A	-	B	A	A	A	-	-	A	A	B	A	C	A	A	-	B	A	-	A	A	-	B	B	D	A	A	C	A
Amyl Chloride	$C_5H_{11}Cl$	-	C	B	-	D	-	A	A	-	-	A	D	C	A	D	A	C	-	D	D	-	A	A	-	A	D	-	D	D	D	A
Aniline	C_6H_7N	B	A	A	A	C	C	B	C	-	-	C	D	D	A	D	D	C	D	C	B	A	A	A	-	D	D	C	D	B	D	A
Anti-Freeze		-	A	A	-	A	-	A	B	B	B	C	A	B	A	A	A	A	B	B	A	A	A	A	-	A	A	C	A	A	A	A
Antimony Trichloride	SbCl	-	D	D	-	D	-	A	-	-	-	-	A	A	A	-	-	D	-	A	-	-	-	A	-	-	-	-	C	-	A	A
Aqua Regia																																
(80%,HCl,20%,HNO)		-	D	D	-	D	A	D	D	-	-	-	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	H_3AsO_4	B	A	A	-	D	-	-	D	B	D	D	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	$BaCl_2,2H_2O$	C	A	A	A	D	A	A	B	-	B	C	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	$Ba(OH)_2$	B	C	A	A	D	B	B	B	-	C	C	A	-	A	A	D	A	-	B	A	A	A	A	A	A	A	C	A	A	A	A
Barium Nitrate	$Ba(NO_3)_2$	-	A	A	-	-	A	-	D	-	A	A	B	-	-	A	A	-	-	-	-	-	A	A	-	A	A	-	A	A	-	B
Barium Sulfate	$BaSO_4$	B	A	A	A	D	A	A	C	-	C	C	A	-	A	A	A	A	-	B	A	A	A	B	-	A	A	D	A	A	-	B
Barium Sulfide	Bas	B	A	A	-	D	-	-	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	B	D	B	B	D	-	A	A	-	A	D	C	A	A	A	A

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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] C_6H_5CHO	A	A	A	-	B	A	A	A	-	B	A	D	D	A	D	A	C	D	D	D	A	A	A	-	B	D	B	D	A	D	A
Benzene[2] C_6H_{11}	B	A	A	A	B	A	B	B	A	B	C	D	C	A	D	A	A	D	D	D	A	A	A	A	A	D	-	D	D	D	A
Benzoic Acid[2] $C_7H_6O_2$	B	A	A	A	B	A	A	B	-	D	-	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) $Na_2B_4O_7.10H_2O$	-	A	A	A	C	-	A	A	B	A	C	A	A	A	A	A	A	-	B	A	A	A	A	A	A	B	C	A	A	C	A
Boric Acid H_3BO_3	B	A	A	A	B	A	A	B	C	D	-	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) Br_2	D	D	D	D	D	A	A	C	-	D	D	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	-	-	-	B	A	A	-	A	A	-	B	A	-	A
Butane[2] [1]	A	A	A	-	A	-	-	A	A	C	C	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	-	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	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	-	B	-	A	A	C	D	D	-	A	-	A	D	-	D	D	-	D	B	-	A
Calcium Bisulfate CaH_2SO_4	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	-	D	A	-	C	A	A	C	-	-	-	A	-	A	A	-	A	-	-	A	-	-	A	-	A	A	-	A	-	A	-
Calcium Carbonate $CaCO_3$	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 $Ca(ClO_3)_2.2H_2O$	-	C	A	-	-	-	B	C	-	-	-	A	A	A	-	-	A	-	A	-	-	A	-	-	A	-	-	A	-	A	A
Calcium Chlorlde $CaCl_2$	C	A	D	C	C	A	A	B	-	C	-	A	A	A	A	D	A	B	B	A	A	A	A	B	A	A	B	D	A	A	A
Calcium Hydroxide $Ca(OH)_2$	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 $Ca(H_2PO_4)_2.H_2O$	D	A	C	C	C	A	B	D	-	D	-	D	-	A	A	D	D	-	B	A	-	A	A	-	A	B	C	D	A	C	A
Calcium Sulfate $CaSO_3.2H_2O$	B	A	A	A	B	A	B	B	-	-	-	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
Carbollc Acid (See Phenol)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Bisulfide[2] Cs_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] Cs_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] CCl_4	B	C	B	A	C	A	A	C	A	C	D	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 C_6H_6O	B	A	B	A	A	-	A	B	-	D	-	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	-	A	D	A	-	D	D	-	D	D	-	A	A	-	A	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
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	C	-	D	-	-	D	C	C	A	-	A	D	C	D	-	-	-
Chlorobenzene (Mono)	A	A	A	-	B	-	A	B	-	B	C	D	D	A	D	A	A	D	D	D	A	A	A	-	A	D	-	D	D	D	A

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.

A-No effect-Acceptable
B-Minor effect-Acceptable
C-Moderate effect-Questionable
D-Severe effect-Not Recommended

		302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	TITANIUM	HASTELLOY C	Cast Bronze	Brass	Cast Iron	Carbon Steel	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Chloroform	$CHCl_3$	A	A	A	A	D	A	A	B	-	D	C	D	C	A	D	A	C	D	D	D	C	A	A	A	A	D	D	D	D	D	A
Chlorosulfonic Acid[1]	$SO_2Cl(OH)$	D	D	-	D	D	A	B	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%	CrO_3	-	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%	CrO_3	-	B	-	-	-	A	A	-	D	-	-	A	-	A	A	-	D	-	-	A	-	-	A	-	A	D	-	D	-	-	C
Chromic Acid 30%	$CrO3$	-	B	-	-	-	A	A	-	D	-	-	A	-	A	D	-	D	-	-	A	-	-	A	-	A	D	-	D	-	-	D
Chromic Acid 50%	CrO_3	C	B	B	-	C	A	A	D	D	D	-	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	$(OH)C_3H_4(COOH)_3.H_2O$	-	A	A	A	C	A	A	D	C	D	-	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	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	B	A	-	B	A	A	A	A	-	B	B	-	A	A	A	C
Copper Floborate		-	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	B	D	-	B	A	-	A	A	-	A	A	-	A	-	-	A
Copper Sulfate (5% Solution)	$CuSO_4.5H_2O$	-	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	$CuSO_4.5H_2O$	B	B	-	-	-	A	A	C	D	-	-	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]	$C_6H_4(CH_3)(OH)$	-	A	A	-	B	-	-	D	C	-	-	D	D	-	-	D	-	D	D	C	A	A	A	-	A	D	D	D	D	D	A
Cresyiic Acid		B	A	A	-	C	A	B	C	-	-	-	B	D	A	-	D	D	-	C	-	-	A	A	-	A	D	-	D	D	D	A
Cyclohexane	C_6H_{12}	-	A	-	-	A	A	-	A	-	-	A	-	D	-	D	A	-	-	-	D	A	A	A	-	A	A	D	D	D	D	A
Cyanlc 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	-	-	-	-	-	C	-	-	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	$(C_2H_5)_2NH$	A	A	-	-	A	-	-	A	-	-	-	D	-	A	B	D	-	-	-	C	-	A	A	-	D	B	-	B	B	C	A
Diethylene Gycol		-	A	-	-	-	-	-	A	-	-	-	-	-	-	A	A	A	B	B	-	-	A	A	-	A	A	C	A	A	A	A
Dipethyl 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	C_2H_6	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]	$(C_2H_5)_2O$	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]	$CH_3COOC_2H_5$	-	A	A	-	B	-	B	B	-	-	C	D	D	A	D	A	A	D	C	C	A	A	A	-	D	D	C	D	B	D	A
Ethyl Chloride	C_2H_5Cl	-	A	A	A	B	A	B	B	-	C	D	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 Dichioride	$ClCH_2CH_2Cl$	-	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]	CH_2OHCH_2OH	-	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
Ethylene Oxide	$(CH_2)_2O$	-	-	A	-	A	-	-	A	-	-	-	D	-	A	A	A	A	-	-	-	-	A	A	-	D	D	D	D	C	D	A
Fatty Acids	RCOOH	-	A	A	-	B	A	A	C	-	D	-	A	B	A	B	A	A	-	B	A	-	A	A	-	A	C	C	B	C	C	A
Ferric Chloride	$FeCl_3$	-	D	D	D	D	A	B	D	D	D	-	A	B	A	A	B	D	-	B	A	A	A	A	-	A	D	C	B	A	A	A
Ferric Nitrate	$Fe(NO_3)_3.9H_2O$	-	A	A	A	D	A	A	D	-	-	-	A	-	A	A	B	D	-	B	A	A	A	A	-	A	A	D	A	A	A	A
Ferric Sulfate	$Fe_2(SO_4)_3$	-	A	C	A	D	A	A	D	D	D	-	A	B	A	A	B	A	C	-	A	A	C	A	-	A	B	C	A	-	A	A
Ferrous Chloride	$FeCl_2$	-	D	D	-	D	A	B	C	-	D	-	A	B	A	A	B	D	-	**B**	A	A	A	A	-	A	B	C	A	-	A	A

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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.

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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	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Ferrous Sulfate	$FeSO_4.7H_2O$	B	A	C	-	D	A	B	C	-	D	D	A	B	A	A	B	D	-	B	A	A	A	A	-	A	B	-	A	-	A	A
Fluboric Acid		-	D	B	-	-	D	A	-	-	D	-	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	H_2SiF_6	-	-	B	-	D	D	B	-	-	D	-	A	B	A	A	B	D	-	B	A	-	A	D	-	B	A	-	A	-	-	C
Formaldehyde 40%	HClO	-	-	A	-	-	A	A	-	-	-	-	B	-	A	A	-	D	-	-	A	A	-	A	-	D	B	B	A	-	-	A
Formaldehyde	HClO	A	-A	A	-	A	A	B	A	B	D	A	A	B	A	D	A	A	-	B	A	A	A	A	-	A	C	B	D	B	C	A
Formic Acid[6]	HCOOH	C	A	B	B	D	C	A	C	C	D	D	D	B	A	A	D	D	-	B	A	A	A	A	B	B	D	C	D	A	C	B
Freon 11[1]		A	-	A	-	B	-	-	B	-	C	B	B	D	A	D	A	A	D	C	-	A	A	A	A	C	C	D	D	D	D	A
Freon 12 (wet)[2]		-	-	D	-	B	-	-	B	-	-	-	B	D	A	D	A	A	B	C	A	A	A	A	A	A	A	D	B	B	D	A
Freon 22		-	-	A	-	B	-	-	B	-	-	-	D	D	-	B	A	A	-	-	-	A	A	A	A	D	D	D	A	A	A	A
Freon 113		-	-	A	-	B	-	-	B	-	-	-	C	D	-	-	A	A	-	-	-	A	A	A	A	C	A	D	A	-	D	A
Freon T.F.[4]		-	-	A	-	B	-	-	B	-	-	-	B	D	-	D	A	A	-	-	D	A	A	A	A	B	A	D	A	D	D	A
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	-	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]	$C_4H_3O.CHO$	A	A	A	-	A	-	B	A	-	-	A	D	-	A	D	B	A	D	D	D	A	A	A	-	D	D	D	D	B	D	A
Gallic Acid	$C_6H_2(OH)_3CO_2H.H_2O$	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	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	$C_6H_{12}O_6$	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	$C_3H_5(OH)_3$	A	A	A	A	A	A	A	A	B	B	B	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]	$CH_3(CH_2)_5CH_3$	A	-	A	-	A	-	A	A	-	-	B	A	-	A	D	A	A	C	D	D	A	A	A	-	A	A	-	B	D	-	A
Hexane[1]	$CH_3(CH_2)_4CH_3$	A	A	A	-	A	-	A	B	-	-	B	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	N_2H_4	-	A	A	-	-	-	-	-	-	C	-	-	-	-	-	D	-	-	-	-	-	A	-	-	A	B	D	B	A	C	A
Hydrobromic Acid 20%	HBr	-	-	D	-	-	A	A	-	-	-	-	A	-	A	A	-	D	-	-	A	-	-	B	-	A	D	-	C	-	-	B
Hydrobromic Acid[4]	HBr	D	D	D	D	D	A	A	D	-	D	D	A	B	A	C	D	D	-	B	B	-	A	A	-	A	D	D	D	A	A	A
Hydrochloric Acid (Dry Gas)	HCl	D	C	A	-	D	-	A	-	-	-	D	A	-	A	-	-	-	-	-	-	-	A	-	-	-	-	-	-	A	-	A
Hydrochloric Acid (20%)[4]	HCl	-	D	D	D	D	C	B	D	-	D	-	A	B	A	A	D	D	B	A	A	D	A	A	D	A	C	-	C	A	C	A
Hydrochloric Acid (37%)[4]	HCl	-	D	D	D	D	C	B	D	-	D	-	A	B	A	A	D	D	C	A	A	D	A	C	D	A	C	C	C	C	D	A
Hydrochloric Acid 100%	HCl	-	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]	HF	-	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]	HF	-	C	D	-	D	D	C	D	-	D	-	C	B	A	D	D	D	-	C	B	C	D	D	D	A	D	D	D	C	C	C
Hydrofluoric Acid 100%	HF	D	D	D	-	D	D	B	D	-	D	D	C	D	A	-	-	-	-	D	-	C	D	D	-	-	D	-	D	-	D	A
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	-	-	-

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.

A-No effect-Acceptable
B-Minor effect-Acceptable
C-Moderate effect-Questionable
D-Severe effect-Not Recommended

		302 Stainless Steel	304 Stainless Steel	316 Stainless Steel	440 Stainless Steel	Aluminum	TITANIUM	HASTELLOY C	Cast Bronze	Brass	Cast Iron	Carbon Steel	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Hydrogen Gas	H_2	A	A	A	-	A	-	-	A	-	B	B	A	-	A	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	A
Hydrogen Peroxide 10%	H_2O_2	-	C	C	-	A	C	A	D	D	D	-	A	A	A	-	-	D	-	A	-	B	A	A	-	-	A	-	D	-	C	D
Hydrogen Peroxide 30%	H_2O_2	-	-	B	-	-	B	A	-	D	-	-	A	-	A	-	-	D	-	-	A	C	-	-	-	A	D	-	C	-	-	B
Hydrogen Peroxide	H_2O_2	-	A	B	A	A	B	A	D	D	D	D	A	C	A	B	D	D	-	B	A	C	-	A	A	A	D	C	D	C	C	A
Hydrogen Sulfide, Aqueous Solution	H_2S	-	A	A	C	C	A	A	D	C	D	-	A	B	A	A	D	D	-	B	A	A	A	A	A	B	C	-	B	A	D	A
Hydrogen Sulfide (Dry)	H_2S	A	C	A	-	D	-	A	D	C	B	B	A	-	A	-	-	D	-	-	-	A	-	A	-	A	-	-	-	-	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	I_2	-	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)	I	-	-	B	-	-	D	A	-	-	-	-	D	-	A	C	-	D	-	-	B	-	-	A	-	A	D	-	D	-	-	-
Iodoform	CHI_3	B	D	A	-	A	-	-	C	-	C	B	-	-	A	-	-	A	-	-	-	-	-	-	-	C	-	-	-	-	-	-
Isotane2		-	-	-	-	A	-	-	-	-	-	-	-	-	-	D	A	-	-	-	D	-	-	A	-	A	A	-	-	-	D	A
Isopropyl Acetate	$CH_3CO_2CH(CH_3)2$	-	-	B	-	C	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	A	A	-	D	D	-	D	B	D	A
Isopropyl Ether[2]	$(CH_3)_2CHOCH(CH_3)_2$	A	-	A	-	A	-	-	A	-	-	A	-	-	A	D	A	-	-	-	D	-	A	A	-	D	B	-	D	D	D	-
Jet Fuel (JP3, JP4, JP5)		A	A	A	-	A	-	-	A	-	A	A	A	-	A	D	A	A	-	-	D	A	A	A	-	A	A	D	D	D	D	A
Kerosene[2]		A	A	A	A	A	A	A	A	A	A	B	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	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	$CH_3CH(CH)COOH$	A	A	B	C	C	A	A	D	-	D	D	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	$Pb(CH_3COO)_2.3H_2O$	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	$MgCO_3$	-	A	A	A	-	-	B	-	-	-	-	A	-	-	A	A	-	-	B	A	-	-	A	-	-	A	-	A	A	-	A
Magnesium Chloride	$MgCl_2$	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	$Mg(OH)_2$	A	A	A	-	D	A	A	C	B	B	B	A	-	A	A	A	A	-	B	A	A	A	A	-	A	B	-	B	-	C	A
Magnesium Nitrate	$Mg(NO_3)_2.6H_2O$	-	A	A	A	-	A	A	-	-	-	-	A	-	A	A	A	A	-	B	A	-	-	A	-	A	A	-	A	-	-	A
Magnesium Oxide	MgO	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	A	-	-	A	-	A	A	-	A
Magnesium Sulfate	$MgSO_4$	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	$COOH(CH)_2COOH$	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	$(CHCO)_2O$	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	C	-	-	-	-	-	A	A	-	A	D	-	D	-	D	A
Malic Acid	$COOHCH_2(OH)COOH$	B	A	A	-	C	-	A	D	-	-	D	A	-	A	-	-	A	-	-	-	-	-	A	-	C	-	-	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)	$HgCl_2$	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	Hg	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
Methanol (See Alcohol Methyl)	CH_3OH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Acetate	CH_3COOCH_3	A	-	A	-	A	-	A	A	-	-	B	-	-	A	-	A	-	D	-	-	-	A	A	-	D	D	D	B	B	D	-
Methyl Acrylate	$CH_2CHOOCH_3$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	A	A	-	D	D	-	B	B	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	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Methyl Acetone	A	-	A	-	A	-	-	A	-	A	A	-	-	A	D	A	-	-	-	-	-	A	-	D	D	-	D	-	-	C
Methyl Alcohol 10% CH_3OH	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 CH_3Cl	-	C	A	-	D	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 $CH_3COC_2H_5$	-	A	A	-	A	A	A	A	-	-	-	D	-	A	D	B	A	D	D	A	A	A	A	-	D	D	C	D	A	D	B
Methyl Isobutyl Ketone[2] $(CH_3)_3CHCH_2COCH_3$	-	-	A	-	-	A	A	-	-	-	-	D	-	A	D	B	A	D	-	C	A	A	A	-	D	D	C	D	C	D	B
Methyl Isopropyl Ketone $CH_3COCH(CH_3)_2$	-	-	A	-	-	-	-	-	-	-	-	-	-	-	D	B	A	-	-	-	-	A	A	-	D	D	B	D	B	D	B
Methyl Methacrylate CH_2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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	-	A	D	A	D	-	D	D	-	A	A	-	B	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
Naptha	A	A	A	A	A	A	A	B	-	B	B	A	C	A	D	A	A	C	D	A	A	A	A	-	A	B	D	D	D	D	A
Napthalene $C_{10}H_8$	B	A	B	-	B	A	A	C	-	B	A	D	-	A	D	A	-	-	D	B	A	A	A	-	C	D	-	D	D	D	A
Nickel Chloride $NiCl_2$	-	A	B	-	D	A	A	D	-	D	-	A	B	A	A	B	A	-	B	A	-	A	A	-	A	A	-	A	A	A	A
Nickel Sulfate $NiSO_4$	B	A	B	-	D	A	B	C	C	D	D	A	A	A	A	B	A	-	B	A	-	A	A	-	A	A	-	A	A	C	A
Nitric Acid (10% Solution) HNO_3	A	A	A	A	D	A	A	D	-	D	D	A	B	A	A	D	D	C	B	A	D	C	B	D	A	D	-	D	B	D	A
Nitric Acid (20% Solution) HNO_3	-	A	A	A	D	A	A	D	-	D	-	A	B	A	A	D	D	D	B	A	C	D	C	D	A	D	-	D	D	D	B
Nitric Acid (50% Solution) HNO_3	-	A	A	A	D	A	A	D	-	D	-	A	B	A	A	D	D	D	C	D	C	D	A	-	A	D	-	D	D	D	D
Nitric Acid (Concentrated Solution) HNO_3	-	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] $C_6H_5NO_2$	B	A	B	-	C	A	B	D	-	B	B	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	-	-	-	-	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
Cresote[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

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Oils (Cont.)																															
Ginger	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	A	A	-	A	A	-	A	-	-	A
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 $C_{18}H_{34}O_2$	B	A	A	B	B	-	B	B	C	C	C	A	C	A	C	B	A	B	D	C	-	A	A	-	B	B	D	D	D	D	A
Oleum 25%	-	-	-	-	-	-	A	-	-	-	-	D	-	A	D	-	-	-	-	-	-	-	A	-	A	D	D	D	D	-	D
Oleum	B	-	A	-	B	-	-	C	C	-	B	D	-	A	-	D	-	-	-	D	-	-	A	-	A	C	D	D	D	D	A
Oxalic Acid (Cold) $(CO_2H)_2$	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	B	A	A	B	-	A	-	A	A	-	A	A	-	-	-	-	A
Pentane $CH_3(CH_2)_3CH_3$	A	C	C	-	A	-	B	A	-	B	B	-	-	A	D	A	A	D	-	-	-	A	A	-	A	A	-	B	D	D	A
Perchloroethylene[2] Cl_2	B	A	A	-	A	-	-	C	-	B	B	-	-	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) C_6H_5OH	B	A	A	A	B	C	A	B	D	D	D	A	C	A	C	D	D	-	D	B	A	A	D	A	A	D	-	D	D	D	B
Phosphoric Acid (to 40% Solution) H_3PO_4	-	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) H_3PO_4	-	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) H_3PO_4	-	D	C	C	D	C	A	D	D	D	D	-	-	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 $C_8H_4O_3$	B	A	B	-	B	-	A	B	-	C	C	-	-	A	-	-	A	-	-	-	-	-	-	-	A	C	-	-	-	-	-
Picric Acid $C_6H_3O_7N_3$	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℉	-	-	A	-	-	A	A	-	-	-	-	A	-	A	A	-	D	-	-	A	-	-	A	-	A	A	D	A	-	-	B
Arsenic Plating 110℉	-	-	A	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	-	-	C	-	A	A	D	A	-	-	B
Brass Plating																															
Regular Brass Bath 100℉	-	-	A	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	-	-	C	-	A	A	D	A	-	-	B
High Speed Brass Bath 110℉	-	-	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℉	-	-	A	-	-	A	A	-	-	-	-	D	-	A	A	-	A	-	-	A	-	-	D	-	A	A	D	B	-	-	C

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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.

A-No effect-Acceptable
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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	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Platings (Cont.)																															
Copper-Zinc Bronze Bath 100℉	-	-	A	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	-	-	C	-	A	A	-	A	-	-	B
Cadmium Plating																															
Cyanide Bath 90℉	-	-	A	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	-	-	C	-	A	A	-	A	-	-	B
Fluoborate Bath 100℉	-	-	A	-	-	D	A	-	-	-	-	A	-	A	A	-	D	-	-	A	-	-	D	-	A	B	-	C	-	-	B
Chromium Plating																															
Chromic-Sulfuric Bath 130℉	-	-	C	-	-	A	A	-	-	-	-	A	-	A	D	-	D	-	-	A	-	-	A	-	C	D	-	D	-	-	D
Fluosilicate Bath 95℉	-	-	C	-	-	C	A	-	-	-	-	A	-	A	D	-	D	-	-	A	-	-	B	-	C	D	-	D	-	D	D
Fluoride Bath 130℉	-	-	D	-	-	C	A	-	-	-	-	A	-	A	D	-	D	-	-	A	-	-	B	-	C	D	-	D	-	-	D
Black Chrome Bath 115℉	-	-	C	-	-	A	A	-	-	-	-	A	-	A	D	-	D	-	-	A	-	-	A	-	C	D	-	D	-	-	D
Barrel Chrome Bath 95℉	-	-	D	-	-	C	A	-	-	-	-	A	-	A	D	-	D	-	-	A	-	-	A	-	C	D	-	D	-	-	D
Copper Plating (Cyanide)																															
Copper Strike Bath 120℉				-	A	A	A							A	A								C		B			A			
Rochelle Salt Bath 150℉	-	-	A	-	-	A	A	-	-	-	-	D	-	A	A	-	A	-	-	A	-	-	D	-	A	A	-	B	-	-	C
High Speed Bath 180℉	-	-	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	-	-	A	-	A	A	-	A	-	-	D
Copper Fluoborate Bath 120℉	-	-	D	-	-	D	A	-	-	-	-	A	-	A	A	-	D	-	-	A	-	-	D	-	A	B	-	C	-	-	D
Copper (Misc.)																															
Copper Pyrophosphate 140℉	-	-	A	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	-	-	B	-	A	A	-	A	-	-	B
Copper (Electroless) 140℉	-	-	-	-	-	-	-	D	-	-	-	A	-	A	A	-	A	-	-	A	-	-	A	-	A	D	-	D	-	-	B
Gold Plating																															
Cyanide 150℉	-	-	A	-	-	A	A	C	-	-	-	D	-	A	A	-	A	-	-	A	-	-	B	-	A	A	-	A	-	-	D
Neutral 75℉	-	-	C	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	-	-	A	-	A	A	-	A	-	-	A
Acid 75℉	-	-	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℉	-	-	D	-	-	A	D	-	-	-	-	D	-	A	A	-	D	-	-	C	-	-	A	-	A	B	-	D	-	-	D
Ferrous Sulfate Bath 150℉	-	-	C	-	-	A	A	-	-	-	-	D	-	A	A	-	D	-	-	A	-	-	A	-	A	A	-	B	-	-	D
Ferrous Am. Sulfate Bath 150℉	-	-	C	-	-	A	A	-	-	-	-	D	-	A	A	-	D	-	-	A	-	-	A	-	A	A	-	B	-	-	D
Sulfate-Chloride Bath 160℉	-	-	D	-	-	A	D	-	-	-	-	D	-	A	A	-	D	-	-	A	-	-	A	-	A	B	-	C	-	-	D
Fluoborate Bath 145℉	-	-	D	-	-	D	B	-	-	-	-	D	-	A	A	-	D	-	-	A	-	-	D	-	A	B	-	C	-	-	D
Sulfamate 140℉	-	-	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℉	-	-	C	-	-	A	A	-	-	-	-	D	-	A	A	-	A	-	-	A	-	-	A	-	A	A	-	A	-	-	D
High Chloride 130-160℉	-	-	C	-	-	A	A	-	-	-	-	D	-	A	A	-	D	-	-	A	-	-	A	-	A	A	-	B	-	-	D
Fluoborate 100-170℉	-	-	C	-	-	D	A	D	-	-	-	D	-	A	A	-	D	-	-	A	-	-	D	-	A	B	-	C	-	-	D
Sulfamate 100-140℉	-	-	C	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	-	-	A	-	A	A	-	A	-	-	A
Electroless 200℉	-	-	-	-	-	-	-	-	-	-	-	D	-	A	D	-	D	-	-	D	-	-	A	-	A	D	-	D	-	-	B
Rhodium Plating 120℉	-	-	D	-	-	D	D	-	-	-	-	A	-	A	A	D	D	-	-	A	-	-	A	-	A	A	-	B	-	-	A
Silver Plating 80-120℉	-	-	A	-	-	A	A	-	-	-	-	A	-	A	A	-	A	-	-	A	-	-	B	-	A	A	-	A	-	-	A
Tin-Fluoborate Plating 100℉	-	-	C	-	-	D	A	-	-	-	-	A	-	A	A	-	D	-	-	A	-	-	D	-	A	B	-	C	-	-	A
Tin-Lead Plating 100℉	-	-	C	-	-	D	A	-	-	-	-	A	-	A	A	-	D	-	-	A	-	-	D	-	A	B	-	C	-	-	A
Zinc Plating																															
Acid Chloride 140℉	-	-	D	-	-	A	D	-	-	-	-	A	-	A	A	-	D	-	-	A	-	-	A	-	A	A	-	A	-	-	A
Acid Sulfate Bath 150℉	-	-	C	-	-	A	A	-	-	-	-	D	-	A	A	-	D	-	-	A	-	-	A	-	A	A	-	B	-	-	D

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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	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Platings (Cont.)																															
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	C	A	C	B	A	A	A	A	-	A	A	-	A	-	B	A
Potassium Bromide KB2	A	A	-	B	C	A	B	C	-	D	D	A	-	A	A	A	C	-	B	A	C	A	A	-	A	A	-	A	A	B	A
Potassium Carbonate K_2CO_3	B	A	-	A	C	A	A	C	-	B	B	A	B	A	A	B	A	-	B	A	A	A	A	A	A	B	-	A	-	B	A
Potassium Chlorate $KClO_3$	B	A	A	A	B	A	B	B	-	B	B	A	B	A	A	B	D	-	B	A	A	A	A	-	A	A	-	A	-	B	A
Potassium Chloride KCl	C	A	A	B	B	A	A	C	C	B	B	A	A	A	A	A	B	C	B	A	A	A	A	-	A	A	-	A	A	A	A
Potassium Chromate $K_2C_2O_4$	-	-	B	B	A	-	B	A	-	A	-	A	-	-	A	C	-	-	B	-	A	A	D	-	A	A	-	A	-	B	C
Potassium Cyanide Solution KCN	B	A	B	A	D	A	A	D	-	B	B	A	-	A	A	C	A	-	B	A	A	A	A	-	B	A	-	A	A	A	A
Potassium Dichromate $K_2Cr_2O_7$	B	A	A	A	A	A	B	C	-	B	C	A	-	A	A	C	D	-	B	A	A	A	A	-	B	A	-	A	A	A	A
Potassium Ferrocyanide $K_4(Fe(CN)_6).3H_2O$	B	A	-	A	C	-	B	A	-	-	C	A	-	A	-	-	A	-	A	-	-	-	-	-	-	D	-	-	-	A	A
Potassium Hydroxide (50%) KOH	A	B	B	B	D	C	A	D	D	C	A	A	B	A	A	D	A	C	B	A	A	-	D	A	B	B	C	A	A	C	A
Potassium Nitrate KNO_3	B	A	B	A	B	A	B	B	-	-	B	A	C	A	A	B	C	-	B	A	C	A	A	-	B	A	-	A	A	A	A
Potassium Permanganate $KMnO_4$	B	A	B	B	B	B	B	B	-	B	B	A	-	A	A	C	D	C	B	B	A	A	A	-	B	A	-	A	-	B	B
Potassium Sulfate K_2SO_4	B	A	B	B	A	A	A	B	B	B	B	A	A	A	A	B	C	-	B	A	A	A	A	-	A	A	C	A	A	C	A
Potassium Sulfide K_2S	A	A	-	A	B	-	B	B	-	B	B	A	-	A	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-
Propane (Liquified)[1 2] C_3H_8	A	A	-	A	A	-	-	A	A	-	B	D	-	A	D	A	A	-	-	D	-	A	A	-	A	A	D	B	D	D	A
Propylene Glycol $CH_3CH(OH)CH_2OH$	B	B	-	A	A	-	-	B	-	B	B	-	-	A	-	B	B	B	B	-	-	A	A	-	A	A	-	C	-	-	A
Pyridine C_5H_5N	-	C	-	B	B	-	-	-	-	B	A	-	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 Si	-	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 $AgNO_3$	B	A	B	A	D	A	A	D	-	D	D	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)							A																								
Sodium Acetate $CH_3COONa.3H_2O$	B	A	A	B	B	A		B	-	C	C	A	-	A	A	B	A	-	B	A	-	A	A	-	D	D	-	C	-	A	A
Sodium Aluminate $NaAl_2$	B	-	-	A	C	B	B	B	-	-	C	-	-	A	A	B	A	-	-	-	A	A	A	-	A	A	-	A	A	B	A
Sodium Bicarbonate $NaHCO_3$	B	A	A	A	A	A	-	B	A	C	C	A	B	A	A	B	A	B	B	A	A	A	A	A	A	A	C	A	A	A	A
Sodium Bisulfate NaHSO4	A	A	-	A	D	B	B	C	C	D	D	A	B	A	A	B	C	C	B	A	A	A	A	-	B	A	C	A	-	A	A
Sodium Bisulfite $NaHSO_3$	-	A	-	A	A	A	B	C	-	D	-	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 Na_2CO_3	B	A	B	B	C	A	A	B	B	B	B	A	B	A	A	A	A	C	B	A	A	B	A	-	A	A	-	A	A	A	A
Sodium Chlorate $NaClO_3$	B	A	-	A	B	A	B	B	-	-	C	A	B	A	A	D	A	-	B	A	A	A	A	-	A	D	-	A	-	A	A
Sodium Chloride NaCl	B	A	C	B	C	A	A	B	C	B	C	A	B	A	A	A	A	B	B	A	A	A	A	A	A	A	C	A	A	B	A
Sodium Chromate $Na_2CrO_4.10H_2O$	A	A	A	-	D	-	B	B	-	B	B	-	-	A	A	D	A	-	-	A	A	A	B	-	B	A	-	A	-	-	C
Sodium Cyanide NaCN	B	A	-	A	D	A	-	D	D	B	B	A	-	A	A	D	C	-	B	A	A	A	A	-	A	A	D	A	A	A	A
Sodium Fluoride NaF	B	C	-	C	C	A	A	C	-	D	D	D	D	A	-	-	A	-	C	-	-	-	-	-	C	D	-	D	-	D	A
Sodium Hydrosulfite $Na_2S_2O_4$	-	-	-	-	A	-	A	C	-	-	-	C	A	A	-	-	A	-	-	-	-	-	A	-	A	-	-	A	-	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	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Sodium Hydroxide (20%)	NaOH	-	A	A	A	D	A	A	C	D	A	-	A	B	A	A	D	C	C	B	A	A	C	D	A	A	A	D	B	A	A	A
Sodium Hydroxide (50% Solution)	NaOH	-	A	B	-	D	A	A	C	D	B	-	A	B	A	A	D	C	C	C	A	B	C	D	A	A	D	D	C	-	A	A
Sodium Hydroxide (80% Solution)	NaOH	-	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
Sodium Hypochlorite[3] (to 20%)	NaClO	-	C	C	C	C	A	A	D	D	D	-	A	B	A	A	D	A	-	B	D	C	D	A	B	A	C	D	D	B	C	B
Sodium Hypochlorite	NaClO	D	-	A	-	D	A	A	D	-	D	D	A	-	A	A	-	A	-	-	A	C	-	D	-	D	B	C	A	-	-	A
Sodium Hyposulfate		-	A	A	-	D	-	-	D	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	C	C
Sodium Metaphosphate[2]	$NaPO_3$	A	-	A	-	A	-	-	C	C	B	B	-	-	A	-	B	A	-	-	D	-	A	A	-	A	A	-	B	A	A	A
Sodium Metasilicate	$Na_2O.SiO_2.5H_2O$	A	-	A	-	B	-	-	B	-	C	C	-	-	A	-	D	-	-	-	-	-	A	-	-	A	A	D	A	-	-	A
Sodium Nitrate	$NaNO_3$	B	A	A	A	A	A	B	B	C	A	B	A	B	A	A	B	A	-	B	A	-	A	A	A	B	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	Na_2O_2	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	Na_2SiO_2	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	Na_2SO_4	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	Na_2S	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	$Na_2SO_3.7H_2O$	-	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	$SnCl_4$	D	D	D	-	D	A	B	D	-	D	D	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	$SuCl_2$	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]	$C_{18}H_{36}O_2$	B	A	A	A	B	A	A	C	C	C	C	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	D	A	D	A	A	B	D	D	A	A	A	-	A	B	D	D	D	D	A
Styrene	C_6H_5CH	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]	SO_2	-	A	A	C	A	A	B	B	-	-	-	D	B	A	D	B	D	D	C	D	A	A	A	-	D	D	C	B	A	D	A
Sulfur Dixodie (Dry)		A	A	A	-	A	-	A	A	C	A	B	D	-	A	-	-	A	-	D	-	-	A	A	-	A	-	-	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%)	H_2SO_4	-	D	C	C	C	A	A	D	D	D	-	A	B	A	A	D	D	B	B	A	A	A	A	-	A	C	-	D	D	C	A
Sulfuric Acid (10%-75%)[2]	H_2SO_4	-	D	D	D	D	C	B	D	D	D	-	A	B	A	B	D	D	B	C	A	B	A	D	C	A	D	-	D	D	D	B
Sulfuric Acid 75%-100%	H_2SO_4	-	-	D	-	-	D	B	-	D	-	-	B	-	A	A	-	D	-	-	B	C	-	A	-	A	D	-	D	-	-	D
Sulfurous Acid	H_2SO_3	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	$C_{76}H_{52}O_{46}$	B	A	A	A	C	A	B	B	-	C	C	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	$C_4H_6O_6$	B	A	B	B	C	A	B	A	C	D	D	A	B	A	A	B	A	-	B	A	-	A	A	-	A	D	C	A	-	A	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	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	Ethylenre Propylene (EPM)	Rubber (Natural)	Epoxy
Tetrachlorethane	$CHCl_2.CHCl_2$	-	-	A	-	-	A	A	-	-	-	-	D	-	A	D	A	A	-	-	A	-	A	A	-	A	D	-	-	D	D	A
Tetrahydrofuran	C_4H_8O	-	A	A	-	D	-	-	D	-	D	A	D	-	A	D	A	A	-	D	C	A	A	A	-	B	D	-	D	B	D	A
Toluene, Toluol[3]	$C_6H_5CH_3$	A	A	A	-	A	A	A	A	A	A	A	D	D	A	D	B	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	A	A	B	-	A	A	A	A	-	A	A	-	A	-	-	A
Trichlorethane		-	C	A	-	C	A	A	C	-	C	-	-	-	A	D	A	-	-	-	-	-	A	A	-	A	D	D	D	D	D	A
Trichlorethylene[2]	$CHClCl_2$	B	A	A	-	B	A	A	B	A	C	B	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	$(CH_3C_6H_4O)_3PO$	-	-	A	-	-	B	A	A	-	-	-	D	-	A	A	C	-	-	-	-	-	A	A	-	B	D	-	D	A	-	A
Triethylamine	$(C_2H_5)_3N$	-	-	-	-	-	-	-	A	-	-	-	A	-	-	B	D	-	-	-	-	-	A	A	-	A	A	D	B	-	-	A
Turpentine[3]		B	A	A	-	C	-	A	B	C	B	B	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	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	H_2O	A	A	A	-	A	-	-	A	C	B	D	A	B	A	A	A	A	A	D	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]	$C_8H_4(CH_3)_2$	A	A	A	-	A	-	A	A	A	A	B	D	-	A	D	A	A	D	D	D	A	A	A	A	A	D	D	D	D	D	A
Zinc Chloride	$ZnCl_2$	D	A	B	B	D	A	B	D	D	D	D	A	-	A	A	C	A	-	B	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	$ZnSO_4.7H_2O$	B	A	A	A	D	A	B	B	C	C	D	C	B	A	A	C	A	-	B	A	A	A	A	-	A	A	-	A	A	C	A

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