

# Chemical Resistance Chart

Ratings: A - No Effect, B - Minor Effect,  
C - Moderate Effect, D - Sever Effect (Not  
Recommended) Note: 1 - Satisfactory to 72°F, 2 -  
Satisfactory to 120°F

	SILICONE	NEOPRENE	NITRILE	NATURAL RUBBER	HYPALON	BUNA-N	FKM (VITON®)	EPDM	DELIRIN	PVDF	TEFLON (TFE, FEP, PFA)	SANTOPRENE	POLYETHYLENE	POLYPROPYLENE	HALAR(ECTFE)	PVC	POLYSULPHONE	316L SS	304L SS	TITANIUM	ALLOY 20	CAST IRON	HASTALLOY C
ACETALDEHYDE	A	C	D	C	C	D	D	A	A1	D	A	A	C	A	B	D	D	A	A	A	-	C	A
ACETAMIDE	B	B	A	D	B	A	B	A	B	C	A	-	A	A	A	D	D	A	B	-	-	D	-
ACETATE SOLVENT	C	D	C	C	C	C	D	A	-	A	A	-	A	D	-	D	-	A	A	A	A	D	A
ACETIC ACID, GLACIAL	B	D	C	B	C	C	D	B	C	A1	A	-	A2	A1	-	D	-	A	C	A	A	D	A
ACETIC ACID 20%	B	A	B	B	A	B	A	A	B	A	A	A	A	A	A	D	A	A	B	A	A	D	A
ACETIC ACID 80%	B	C	C	B	C	C	B	A	C	C	A	A	A2	A	A	D	B	A	C	A	A	D	A
ACETIC ACID	C	C	C	B	C	C	B	A	C	C	A	-	A2	B	-	D	-	A	C	A	A	D	A
ACETIC ANHYDRIDE	C	A	D	B	A	D	D	B	D	B1	A	D	D	B	D	D	D	A	A	A	B	-	A
ACETONE	B	C	D	C	B	D	D	A	C	D	A	D	B1	A	B	D	D	A	A	A	A	A	A
ACETYL CHLORIDE (DRY)	C	D	D	D	D	D	A	D	D	A2	A	-	D	-	-	C	D	A	A	-	B	-	A
ACETYLENE	B	B	B	B	B	B	A	A	-	A	A	-	A	A1	-	A1	-	A	A	-	A	A	-
ACRYLONITRILE	D	C	D	D	C	D	D	D	-	A1	A	B	A	A	A	-	D	A1	A1	-	A1	A1	B
ALCOHOL: AMYL	D	A	B	B	A	B	B	A	A	A	A	-	B2	B1	-	A2	-	A	A	B	A	-	A
ALCOHOL: BENZYL	-	C	D	D	B	D	A	B	A	A	A	-	D	A	-	D	-	A1	A1	A	A	A	A
ALCOHOL: BUTYL	B	A	B	A	A	A	A	B	A	-	A	-	A	A	-	A2	-	A	A	A	A	D	A
ALCOHOL: DIACETONE	D	D	D	D	D	D	D	A	A	A1	A	-	B1	B2	-	B1	-	A	A	A	A	A	A
ALCOHOL: ETHYL	B	A	C	A	A	C	A	A	B	-	A	-	B	A	-	C	-	A	A	A	A	A	A
ALCOHOL: HEXYL	B	A	A	A	B	A	C	C	A	-	A	-	A	-	-	A2	-	A	A	A	A	A	A
ALCOHOL: ISOBUTYL	A	A	B	A	A	B	A	A	A	-	A2	-	A2	A1	-	A1	-	A	A	B	A	C	A
ALCOHOL: ISOPROPYL	A	B	B	A	A	B	A	A	A	-	A2	-	A2	A2	-	A1	-	A	A	A	A	C	B
ALCOHOL: METHYL	A	A	A	A	A	A	B2	A	C	A	A	-	A1	A2	-	A1	-	A	A	B	A	A	A
ALCOHOL: OCTYL	B	B	B	B	B	B	B	A	A	-	-	-	A	-	-	-	-	A	A	A	A	A	C
ALCOHOL: PROPYL	A	A	B2	A	A	A	A	A	A	A2	A	-	A2	A	-	A1	-	A	A	A	A	C	A
ALUMINUM CHLORIDE 20%	B	A	A	A	B	A	A	C	A	A	A	A	B2	A	-	A1	-	C1	D	B	C1	D	A
ALUMINUM CHLORIDE	B	A	A	A	B	A	A	A	-	A	A	A	B2	A	A	A2	A	C1	A1	B	B1	D	A
ALUMINUM FLUORIDE	B	A	A	B	A	A	A	C	A	A	A	-	A2	A	-	A2	-	C1	B1	A	C	-	B
ALUMINUM HYDROXIDE	-	A	A2	D	A2	A	A	A	B	A	A	-	A2	A	A	A2	B	C1	A1	B1	A1	A	B
ALUMINUM POTASSIUM SULFATE 10%	A	A	A	A	A	A	A	A	C	B	A	-	A2	A	-	A2	-	B2	C	A	A	D	C
ALUMINUM POTASSIUM SULFATE 100%	A	A	A	A	A	A	A	A	C	-	A	-	A2	A	-	A2	-	B2	C	A	B	D	C
ALUMINUM SULFATE	A	A	A	A	A	A	A	A	C	A	A	A	A2	A	A	A2	A	B1	B	A	B	D	B
AMINES	B	B	D	B	D	D	D	B	D	-	A2	-	C1	-	-	D	-	A	A	B	B	D	C
AMMONIA 10%	-	A	A	D	D	A	D	A	D	A	A	-	C1	A2	-	B1	-	A1	A1	C	A1	A	A
AMMONIA, ANHYDROUS	D	C	B	D	D	B	D	A	D	A	A	-	B2	A	-	A2	-	A1	A	C	A	A	B
AMMONIA, LIQUID	-	A	C	D	D	C	D	A	D	A	A	A	C1	A2	A	A2	B	A	B2	C	B2	A	A
AMMONIA, NITRATE	-	C	C	-	D	C	D	A	C	A	A	-	-	A	-	B	-	A	A	-	A	A	-
AMMONIUM BIFLUORIDE	-	A	A2	-	-	A	A	A2	D	A	A	-	A2	A	-	A2	-	-	C	-	B	D	B
AMMONIUM CARBONATE	-	A	B	A	-	D	-	A	D	A	A	A	B2	A	-	A2	A	B	B	A	B	A	B
AMMONIUM CASENITE	-	A	-	-	-	-	-	D	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-
AMMONIUM CHLORIDE	A	A	B	A	B	A	A	B	A	A	A	A	A2	A2	-	A2	-	D	C	B	B	D	A
AMMONIUM HYDROXIDE	-	A	D	D	A	D	B	A	C1	A	A	A	A1	A	-	A	A1	A1	A	A	A	A	B
AMMONIUM NITRATE	-	B	A	C	A	A	A	A	C	A	A	A	A1	A	-	A2	A	A	A1	A	A	A	B
AMMONIUM OXALATE	-	A	-	-	-	A	-	-	B	-	-	-	-	-	A	A	A	A	A	-	A	D	A
AMMONIUM PERSULFATE	A	A	D	A	A	D	A	A	D	A1	A1	-	A2	A	-	A2	-	B	A	A	B	D	B
AMMONIUM PHOSPHATE, DIBASIC	A	A	A	A	A	A	A	B	A	A2	-	A2	A	-	A2	-	B	B	A	A1	C	B	
AMMONIUM PHOSPHATE, MONOBASIC	A	A	A	A	A	A	A	B	-	A	A	A	A	A	A	A	C	B	A	A	C	D	B
AMMONIUM PHOSPHATE, TRIBASIC	A	A	A	A	A	A	A	A	B	-	A	-	C	A	-	A	-	B	B	A	-	A	B
AMMONIUM SULFATE	-	A	A	A	A	A	A	A	-	A	A	A	A1	A	A	A2	A	B	B	A	B	C	B
AMMONIUM THIOSULFATE	D	A	A	-	-	A	-	-	B	-	-	-	A	-	-	-	-	A	-	A	-	D	-
AMYL ACETATE	D	D	D	D	D	D	D	A	A	A2	A	A	C1	B1	-	C1	D	A	A1	A	A	C	A
AMYL ALCOHOL	D	A	B	B	A	B	B	A	A	A	A	B	B2	B1	-	A2	A	A	B	A	-	-	A

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AMYL CHLORIDE	D	D	B1	D	D	-	B1	D	A	A	A	A	D	D	A	D	-	A2	A2	C	A2	-	A1
ANILINE	D	D	D	D	D	D	C	B	A1	A1	A	C	B2	C1	C	C1	D	B	A	C	A	C	B
ANTI-FREEZE	-	C	C	A	-	A	A	-	D	-	-	-	-	D	-	A	-	A	-	-	A	A	-
ANTIMONY TRICHLORIDE	-	-	-	-	-	-	A2	B1	-	A	A	-	B2	A	-	A2	-	C1	D	B	B	-	-
AQUA REGIA (80% HCl, 20% HNO3)	D	D	D	D	C	D	B	C	D	A1	A	C	B1	B1	-	C1	-	D	D	A	D	-	C
AROCHLOR 1248	B	D	C	D	D	C	A	B	-	-	A	-	C1	D	-	-	-	B	B	A1	-	-	A
AROMATIC HYDROCARBONS	D	D	C	D	D	C	A	D	A	-	-	D	C	D	-	D	-	C	-	-	-	A	-
ARSENIC ACID	A	A	A2	B	A	A2	A2	A2	D	A	A	-	B2	A	-	A1	A	A2	A2	B	A1	D	B
ASPHALT	D	C	B	D	D	B	A	D	A	-	A1	-	A1	B1	-	A2	-	A	B	-	A	A	-
BARIUM CARBONATE	-	-	A	-	-	A2	A	A	A	A	A	-	B2	A	-	A2	-	B	B1	A	B1	-	B
BARIUM CHLORIDE	A	A	A2	A	A	A	A	A	A	A	A	-	A1	A	-	A1	-	A1	A1	A	B	C	B
BARIUM CYANIDE	-	A	A2	-	-	C	A	A	B	-	A1	-	B	D	-	D	-	A1	A1	-	A	-	-
BARIUM HYDROXIDE	A	A	C	A	A	A	A	A	D	A	A	-	B2	B	-	A2	-	B	B1	B	B1	A	B
BARIUM NITRATE	-	A	A2	-	-	A2	A	A	A	-	A1	-	B2	A	-	A	-	B	B1	A	B	A	-
BARIUM SULFATE	A	A	A2	A	A	A	A	A	A	A	A	-	B2	B1	-	B1	-	B1	B1	B	B	-	A
BARIUM SULFIDE	A	A	A	A	A	A	A	A	A	A	A	-	B2	B	-	B2	C	B2	B1	A	A1	-	-
BEER	A	A	A	A	A	A	A	A	B	A	A	-	A2	A1	-	A1	D	A	A	B	A	D	A1
BEET SUGAR LIQUID	A	A	A	A	A	A	A	A	B	-	A1	-	A1	B1	-	A2	-	A	A	A	A	A	-
BENZALDEHYDE	D	D	A	D	D	D	D	A	A	A2	A1	C	A1	A1	A	D	-	B	B	A	A	A	A
BENZENE	D	D	D	D	D	D	A	D	A1	A2	A	D	C1	C1	A	C1	-	B	B	A	A	A	B
BENZOIC ACID	B	D	D	D	D	D	A	D	B	A	A2	A	B2	C1	A	A	A	B	B	B	B	D	B1
BENZOL	-	B	D	D	B	D	A	B	A	A	A	-	C	A	-	-	-	A1	A1	-	B	A	B
BORAX (SODIUM BORATE)	B	C	D	D	A	D	A	A	A	A	A	-	A2	B	-	B1	-	A	A	B	A	A	B
BORIC ACID	A	A	D	A	A	A	A	A	A	A	A	-	A2	A	-	A2	-	A1	B2	A	B2	D	A
BREWERY SLOP	-	A	A	-	-	A	A	-	A	-	-	-	-	-	-	-	-	A	-	-	A	A	-
BROMINE	D	D	A	D	D	D	A	D	D	A	A	A	D	D	A	C1	-	D	D	D	D	-	A
BUTADIENE	D	B	D	D	B	D	B	C	A	A	A2	-	D	D	B	C1	-	A	A	-	A	-	-
BUTANE	D	A	D	D	B	A	A	D	A	A	A	C	C1	C1	A	C1	-	A2	A2	A	A	-	A
BUTANOL (BUTYL ALCOHOL)	B	A	A	A	A	A	A	B	A	A	A2	C	A2	A1	-	B1	-	A1	A	B	A	-	A
BUTTER	B	B	A	D	B	A	A	A	A	-	A	-	-	-	-	-	-	A	C	-	-	D	-
BUTTERMILK	-	A	A	D	-	A	A	-	A	-	A	-	A1	A1	-	A1	-	A	A	-	-	D	A
BUTYLENE	D	C	A	D	D	B	A	D	A	A	A	-	B1	-	-	C1	-	A	A	-	A	-	-
BUTYLACETATE	D	D	B	D	D	D	B	A	B2	A	D	C1	B1	-	D	-	A	B	A	B1	A	A	
BUTYRIC ACID	-	D	D	-	D	D	B1	B	C	B	A2	A	D	C	-	B1	-	B2	B2	A	B	D	A1
CALCIUM BISULFATE	-	A	D	-	-	-	-	-	-	-	-	D	-	-	-	-	-	A	-	-	-	D	-
CALCIUM BISULFIDE	-	A	-	-	-	A1	A	C	D	-	A	-	-	A	-	A2	-	B	B	A	B	-	-
CALCIUM BISULFITE	A	A	A1	D	A	A	A	D	D	A	A	-	A1	B	-	B	-	A	B	A	B1	-	B
CALCIUM CARBONATE	A	A	A	A	A	A	A	A	A	A	A	-	B2	A	-	A2	-	B	A1	B	B1	-	B
CALCIUM CHLORATE	-	-	A	-	-	C	A	A	-	A	-	-	-	-	-	A2	-	-	-	-	-	-	-
CALCIUM CHLORIDE	A	A	C	A	A	A	A	A	D	A	A	-	B2	A2	-	A2	-	B2	C2	A	B	C	-
CALCIUM HYDROXIDE	A	A	A	A	A	A	A	A	D	A	A	-	B2	A2	A	A2	-	B	C	A	B	A	A
CALCIUM HYPOCHLORITE	B	C	A	D	A	C1	A	B1	D	A	A	-	B2	A2	A	B1	-	B	C1	A1	B	D	A
CALCIUM SULFATE	-	C	C1	-	-	A2	A	A	D	A	A	-	B2	A	-	A2	-	B	B	A	B1	A	B
CALGON	-	A	A2	-	-	A	A	A	B	-	-	-	-	A	-	-	-	A	A	-	-	D	B
CANE JUICE	A	A	A	A	A	A	A	A	A	-	A	-	C1	-	A2	-	A	A	-	-	A	A	-
CARBOLIC ACID (SEE PHENOL)	D	C	A	D	C	D	A	B	D	A2	A	-	B1	B2	-	C	-	B	B	A	B	D	-
CARBON BISULFIDE	-	D	D	-	D	C	A	D	A	-	-	D	-	C1	-	D	-	B	A	-	B	-	A
CARBON DIOXIDE	B	B	C	B	B	A	B	B	A	A	A	A	C1	A2	-	A	-	A1	A	A	A	D	-
CARBON DIOXIDE (DRY)	B	B	A	B	B	A	B	B	A	A	A	-	C1	A2	-	A	-	A1	A	A	A	D	A
CARBON DIOXIDE (WET)	B	B	A	B	B	A	B	B	A	A	A	-	C1	A2	-	A	-	A1	A	A	A	D	A

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CARBON BISULFIDE	-	D	D	D	D	D	A1	D	A1	B2	A	-	C1	D	A	D	-	B	A1	B	B	A	B
CARBON MONOXIDE	A	A	A	B	A	A	A	A	A	B	A	-	B2	A	-	A2	A	A	A	-	A	D	A
CARBON TETRACHLORIDE	D	D	C	D	D	C	A	D	B1	A	A	D	B1	B1	A	B1	-	B	B	A	B	C	A1
CARBONATED WATER	-	A	A	-	-	A	A	-	A	-	-	-	A	B	-	A	-	A	A	-	A	D	-
CARBONIC ACID	A	A	B	A	A	B	A	A	B1	A1	A	-	B2	B	-	A2	-	A	A1	B1	A	D	A1
CATSUP	-	C	A	-	-	A	A	C	B	-	-	-	-	A	-	A	-	A	A	-	A	D	-
CHLOROACETIC ACID	-	D	B	D	-	B	D	B	D	A1	A	-	C1	C1	-	B1	-	A1	B1	A1	C2	-	B
CHLORIC ACID	-	-	-	-	-	-	-	-	D	-	A	-	-	-	-	A2	-	C1	D	-	A	-	A
CHLORINATED GLUE	-	D	C	-	-	C	A	B	-	-	-	-	-	-	-	-	-	A	-	-	A	D	-
CHLORINE, ANHYDROUS LIQUID	-	D	D	D	C	D	A	C	A1	B	A	D	B2	B	-	C2	-	C	C1	B	C	C	B
CHLORINE, DRY	D	C	D	D	B	D	A	A	D	A	A	D	B	C	-	A2	-	B	C1	D	A	-	B
CHLORINE WATER	-	D	D	D	C	D	A	C	D	B	A	-	B1	C	-	A2	-	C	C	A	B	-	A
CHLORO BENZENE (MONO)	D	D	D	D	D	D	A	D	A1	A1	B	D	C1	C1	-	D	-	B	A	B	B	D	B
CHLOROFORM	D	D	D	D	D	D	A	D	B1	A	A1	D	C1	C1	B	D	-	A	B1	A2	A	D	A1
CHLOROSULFONIC ACID	D	D	D	D	D	D	C	D	D	C1	A	-	D	D	-	C	-	B2	D	A	C	D	A1
CHOCOLATE SYRUP	-	A	A	D	-	A	A	-	A	-	A	-	-	A	-	-	-	A	A	-	-	D	-
CHROMIC ACID 5%	C	D	D	B	B	D	A	A	B1	A	A	-	B	A	-	A	-	A	B	A	B1	D	B
CHROMIC ACID 10%	C	D	D	D	B	D	B	C	B1	A	A	-	A2	A	A	A2	-	B	B	B	B1	D	B
CHROMIC ACID 30%	C	D	D	D	B	D	A	B	C	A2	A	A	A2	A2	-	D	B2	B1	A	B2	D	B	B
CHROMIC ACID 50%	C	D	D	D	B	D	A	B	D	A1	A2	-	A2	B1	A	C2	-	B2	C2	A2	C1	D	B1
CIDER	-	A	A	-	-	A	A	-	B	-	-	-	B	A	-	A	-	A	A	-	A	D	-
CITRIC ACID	A	A	A	A	A	A	A	A	B1	A	A	-	A1	A	A	B2	-	A2	B2	A2	A2	D	A
CITRIC OILS	-	D	A	-	-	A	A	-	B	-	-	-	-	A	-	-	-	A	A	-	A	D	-
CLOROX (BLEACH)	-	B	B	D	B	B	A	B	D	-	A	-	-	D	-	A	-	A	A	-	-	D	A
COFFEE	A	A	A	A	A	A	A	A	A	-	-	-	-	A	-	-	-	A	A	A	A	-	A
COPPER CHLORIDE	A	A	A	A	A	A	A	A	B	-	A	-	B	A	-	A	-	D	D	A	B	D	-
COPPER CYANIDE	A	A	A	A	A	A	A	A	B	A	A	-	B2	A	-	A2	-	B	B	B	B	D	B
COPPER FLOBORATE	-	A	B	-	-	B	A	-	B	-	-	-	-	-	-	A	-	D	D	-	-	D	B
COPPER NITRATE	-	A	A	-	-	A	A	-	D	A	A	-	B2	A	-	B2	-	B	A	B	B	-	A1
COPPER SULFATE 5%	A	A	A	B	A	A	A	A	D	A	A	-	B2	A	-	A2	-	B	B	A	B	D	A
COPPER SULFATE >5%	A	A	A	B	A	A	A	A	D	A	A	-	B2	A	-	A2	-	B	B	A	B	D	A
CREAM	-	C	A	-	-	A	A	-	A	-	A	-	-	A	-	-	-	A	A	-	A	D	-
CRESOLS	D	D	D	D	D	D	D	D	D	A2	-	C	C1	D	A	D	D	A	A2	B	A	C	B2
CRESYLIC ACID	D	D	D	D	D	D	D	D	D	B1	A	-	B1	D	-	C1	-	A	A1	A1	A1	C	B1
CYANIC ACID	-	C	C	-	-	C	A	-	D	-	A	-	-	-	-	-	-	A	A	-	-	D	-
CYCLOHEXANE	D	D	A	D	D	A	A	D	A1	A	A	D	B1	C1	A	D	A	A	A	A	A	A	B
DETERGENTS	A	B	A	B	B	A	A	A	A1	-	A	-	A1	B1	-	A	-	A1	A1	A2	-	-	B
DICHLORETHANE	-	D	-	D	-	-	C	-	A1	A1	A1	-	C1	A1	-	D	-	B	B	B1	A	-	A
DIESEL FUEL	D	B	A	D	B	A	A	D	A	A	A	-	C1	A1	-	A2	-	A	A	B	-	A	B
DIETHYLAMINE	B	C	C	B	C	C	D	B	B	A1	A	-	D	B2	-	D	-	B1	-	D	-	-	-
DIETHYLENE GLYCOL	B	A	A	A	A	A	A	A	A	-	A2	-	B2	A2	A	A	-	A2	A	A	-	A	B
DIPHENYL OXIDE	C	D	A	D	D	A	A	D	D	B2	A1	-	-	D	-	D	-	B1	B1	A1	-	A	B1
DYES	-	C	-	-	-	-	A	-	C	-	-	-	-	-	-	B	-	A	A	-	-	-	-
EPSOM SALTS (MAGNESIUM SULFATE)	A	A	A	B	A	A	A	A	B	A	A	-	A2	A	-	A2	-	B	B1	A1	A	A	B
ETHANE	D	B	A	D	B	A	A	D	-	A	A	-	-	C1	-	D	-	A1	-	-	-	-	-
ETHANOLAMINE	B	B	B	B	C	B	D	B	D	C1	A	-	-	B	-	D	-	A	A	B	A	-	B
ETHER 3	D	D	D	D	D	D	C	C	A1	B1	A	D	C1	D	-	D	-	B1	B1	A1	A	C	B1
ETHYL ACETATE	B	D	D	C	D	D	D	B	A	A1	A	C	C1	B	-	C1	-	B	B	A1	A	A	A
ETHYL CHLORIDE	D	B	A	B	D	A	A	A	A1	A	A	D	C1	C1	-	D	D	A	A	C	A	C	B1
ETHYL SULFATE	-	-	A	-	-	A	A	-	-	-	A	-	-	-	-	-	-	D	-	-	D	-	-

# Chemical Resistance Chart

Ratings: A - No Effect, B - Minor Effect,  
C - Moderate Effect, D - Sever Effect (Not  
Recommended) Note: 1 - Satisfactory to 72°F, 2 -  
Satisfactory to 120°F

	SILICONE	NEOPRENE	NITRILE	NATURAL RUBBER	HYPALON	BUNA-N	FKM (VITON®)	EPDM	DELIRIN	PVDF	TEFLON (TFE, FEP, PFA)	SANTOPRENE	POLYETHYLENE	POLYPROPYLENE	HALAR(ECTFE)	PVC	POLYSULPHONE	316L SS	304L SS	TITANIUM	ALLOY 20	CAST IRON	HASTALLOY C
ETHYLENE CHLORIDE	D	D	D	D	D	D	B	D	A1	A	A	-	C1	C1	A	D	-	A1	A1	B1	A	-	-
ETHYLENE DICHLORIDE	D	D	D	D	D	D	A	C	B1	A	A	D	C1	C1	-	D	D	A1	A1	B	A1	A	B
ETHYLENE GLYCOL	-	AA	A	A	A	A	A	A	B	A	A	A	A1	A2	A	A1	A	A1	A1	A1	A	A	B1
ETHYLENE OXIDE	D	D	D	D	D	D	D	C	-	A	A	B	C1	C2	A	C1	A	C1	C1	-	A1	D	-
FATTY ACIDS	C	B	B	C	D	B	A	D	A1	-	A	A	A	B2	-	B1	-	A	A	B	A	C	A
FERRIC CHLORIDE	B	B	A	A	B	A	A	A	D	A	A	A	A1	B1	-	A2	A	C1	C1	A	D	D	B2
FERRIC NITRATE	C	A	A	A	A	A	A	A	D	A	A	-	B2	B	-	A2	-	A1	A1	A	A	-	B1
FERRIC SULFATE	B	A	A	A	A	A	A	A	D	A	A	A	A2	B	-	A2	A	A1	A1	A1	A	D	A1
FERROUS CHLORIDE	-	A	A	A	A	A	A	-	D	A	A	A	A1	A	-	A2	A	C1	C1	A	C1	D	B1
FERROUS SULFATE	-	-	A2	-	-	A2	-	A	D	A	A	A	A1	A	-	A2	A	B	B1	A1	B	D	B
FLUOBORIC ACID	-	A	A	A	A	-	A2	-	A1	A	A	B2	A	-	A2	A	C	B1	D	B1	D	A1	
FLUORINE	D	-	-	-	-	B	A1	-	A1	A	-	C1	D	A	D	-	C	C	D	C	D	D	B1
FLUOSILICIC ACID	-	A	A	A	A	A	-	A2	-	A1	A	A	B1	A	-	A1	A	B1	C	D	B2	D	B
FORMALDEHYDE 40%	-	B	B	-	-	B	A	A	A1	A2	A	A	A2	A1	A	A1	-	A1	A1	B	A	B	B
FORMALDEHYDE 100%	B	C	C	B	C	C	D	A	A	A	A	A	B	C	-	A	A	C	A	-	C	A	A
FORMIC ACID	B	A	B	A	A	B	C	A	D	A2	A	A	B2	A1	A	A1	C	C	B1	C1	A1	D	A
FREON 11	D	D	B	D	A	B	A	D	D	C	C	-	C	D	-	A2	-	A	C	B	-	C	A
FREON 12	D	A	A	B	A	A	B	B	B	A	A	-	C	D	-	A2	-	-	D	B	-	A	A
FREON 22	D	A	D	A	A	D	B	A	A	D	A	-	-	A	-	B	-	-	-	A	-	C	A
FREON 113	D	C	A	D	A	A	B	D	A	B	A	-	-	D	-	B	-	-	-	C	-	-	A
FREON TF	D	A	A	D	A	A	B	D	A	B	D	-	-	D	A	B	-	-	-	B	-	-	A
FRUIT JUICE	-	A	A	D	-	A	A	-	A	A	A	-	-	A	-	A	-	A	-	A	-	D	A
FUEL OILS	C	C	B	D	D	B	A	D	B	B	A	-	C1	C1	A	A2	-	A	A	A	A	A	A1
FURAN RESIN	D	D	D	D	D	D	-	C	D	D	A	-	D	D	-	D	-	A	A1	-	-	-	-
FURFURAL	D	D	D	D	D	D	B	D	B	D	A	-	C1	D	-	A	-	B	B	A1	B	A	B
GALLIC ACID	-	B	B	A	B	B	A	B	-	A1	A	-	B2	A	A	A2	-	B	B	A	B	-	B1
GASOLINE	D	B	A	D	B	A	A	D	B	A	A	D	C1	C1	A	C1	A	A	B	A	A	A	A
GELATIN	A	A	A	A	A	A	A	A	A	A	A	-	A2	A	-	A2	-	A2	A2	A	A	D	A
GLUCOSE	A	A	A	A	A	A	A	A	A	A	A	A	A2	A	-	A2	-	A	A1	A	-	A	A
GLUE, P.V.A.	A	A	A	A	A	A	A	A	A	-	A	A	A1	-	-	C	-	A2	A1	A	A	A	A
GLYCERIN	A	A	A	A	A	A	A	A	A	A	A	A	A1	A	A	A1	A	A2	A	A	A	A	A
GLYCOLIC ACID	A	A	A	A	A	A	A	A	A1	A	-	A2	A	-	A2	-	A	A	B1	-	-	-	-
GOLD MONOCYANIDE	-	A	A	-	-	A	A	-	A	A	D	-	-	-	-	-	-	A	A	-	-	D	-
GRAPE JUICE	-	A	A	-	-	A	A	-	A	A	D	-	B	-	-	B	-	A	A	A	A	D	-
GREASE	-	D	D	-	-	D	A	-	D	A	A	-	-	-	-	A	-	A	-	A	A	A	A
HEPTANE	D	A	A	D	A	A	A	D	A	A	A	-	B1	C2	A	C1	-	A	A	A	A	A	A
HEXANE	D	B	A	D	B	A	A	D	A	A	A	-	C1	B1	A	B1	-	A	A	-	A	A	A
HONEY	-	-	-	-	-	-	A	-	A	A	A	-	B	A	-	A	-	A	-	A	A	A	A
HYDRAULIC OIL (PETRO)	C	B	A	D	B	A	A	D	B	A	A	-	A	C	-	A	-	A	A	-	A	A	A
HYDRAULIC OIL (SYNTHETIC)	-	-	-	-	-	-	A	-	-	A	A	-	A	D	-	A	-	A	A	-	A	-	A
HYDRAZINE	C	B	B	-	B	B	A	A	B	A	C	-	-	C	-	-	-	A	A	-	-	C	-
HYDROBROMIC ACID 20%	D	B	D	A	A	D	A	A	C	A	-	B	B2	A2	-	B2	B	D	D	A	-	D	A1
HYDROBROMIC ACID 100%	D	D	D	A	A	D	A	A	D	A	A	-	B1	C1	-	A1	-	D	D	A	-	D	C
HYDROCHLORIC ACID, DRY GAS	-	-	-	-	-	-	-	-	-	A	A	-	A2	B	-	A2	-	D	D	C	A	-	A
HYDROCHLORIC ACID 20%	-	-	-	-	-	-	A	-	C	A	A	-	A2	B2	A	A2	-	D	D	C	D	D	A1
HYDROCHLORIC ACID 37%	B	B	B	B1	A	B	A	A	C	A	A	-	B2	C	A	B	-	D	D	C	D	D	-
HYDROCHLORIC ACID 100%	D	D	D	D	D	D	A	C	C	A	A	-	-	B1	-	B2	A	D	D	D	D	D	B2
HYDROCYANIC ACID	-	A	B	-	-	B	A	A	B	A	A	-	A1	A	-	A1	-	B1	B1	B	A	D	A1
HYDROCYANIC ACID (GAS 10%)	-	A	B	-	-	B	A	A	C	-	A	-	-	A	-	A	-	-	A	-	-	-	-
HYDROFLUORIC ACID 20%	D	A1	B1	B1	A1	B1	A1	A1	D	A	A	-	A2	A2	-	B	-	D	D	D	B2	D	A

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	SILICONE	NEOPRENE	NITRILE	NATURAL RUBBER	HYPALON	BUNA-N	FKM (VITON®)	EPDM	DELIRIN	PVDF	TEFLON (TFE, FEP, PFA)	SANTOPRENE	POLYETHYLENE	POLYPROPYLENE	HALAR(ECTFE)	PVC	POLYSULPHONE	316L SS	304L SS	TITANIUM	ALLOY 20	CAST IRON	HASTALLOY C
HYDROFLUORIC ACID 50%	D	A1	B1	B1	A1	B1	A1	A1	D	A	A	-	A1	A2	A	B1	A	D	D	D	B2	D	B2
HYDROFLUORIC ACID 75%	D	D	D	D	A	D	A1	C	D	A	A	-	C1	C1	-	C	-	D	D	D	B1	D	B2
HYDROFLUORIC ACID 100%	D	D	D	D	A	D	A1	C	D	A	A	-	-	C1	-	C	-	B1	B1	D	B1	D	B
HYDROFLUOSILICIC ACID 20%	-	C	A	-	-	A	A	A	B	A	A	-	B2	A	-	A2	-	B1	C2	D	B2	D	B
HYDROFLUOSILICIC ACID 100%	D	B	B	A	A	B	A	A	A	A1	A	-	B1	A	-	B1	-	C2	D	D	B2	D	B
HYDROGEN GAS	C	A	A	B	A	A	A	A	-	A	A	-	A2	A	-	A2	-	A	A	A	A	-	A
HYDROGEN PEROXIDE 10%	B	-	-	-	-	-	A	-	D	A	A	A	A2	B1	-	A1	-	B	B2	B1	B1	C	A
HYDROGEN PEROXIDE 30%	B	-	-	-	-	-	A	-	D	A	A	A	C2	B1	A	A1	-	B	B2	B1	B1	B	A
HYDROGEN PEROXIDE 50%	B	-	-	-	-	-	A	-	D	A1	A	A	C2	B1	-	A1	-	A2	B2	B1	B1	-	A
HYDROGEN PEROXIDE 100%	B	A	B	B	B	B	A	A	D	A1	A	A	C2	B1	-	C2	A	A2	B2	B1	B1	B	D
HYDROGEN SULFIDE (AQUA)	C	A	D	D	B	D	D	A	C	A	A	A	A	A	-	B1	-	C1	C	A	A	D	A1
HYDROGEN SULFIDE (DRY)	C	A	A	A	A	A	D	A	A	A	A	A	A	A	-	A2	-	B	C1	A	B	D	A1
HYDROXYACETIC ACID 70%	-	A	A	-	-	A	A	A	A	A	-	-	-	-	-	D	-	-	-	A	-	B	-
INK	-	A	A	D	-	A	A	-	A	A	D	-	-	-	-	C	-	C	C	-	-	D	-
IODINE	-	D	B	-	B	B	A	B	D	A2	A	-	A1	C	-	D	-	C	C	C	A	D	B
IODINE (IN ALCOHOL)	-	-	-	-	-	-	-	-	D	A	-	-	B	-	-	-	-	-	-	D	B	-	D
IODIFORM	-	A	-	B	-	-	-	A	-	C	C	-	-	-	-	A	-	B	-	-	-	-	A
ISOTANE	-	D	A	-	-	A	A	-	A	-	-	-	D	-	-	A	-	-	-	-	-	-	-
ISOPROPYL ACETATE	D	D	D	D	D	D	D	B	D	D	A	-	B1	B1	A	D	-	A	C	-	A1	-	B
ISOPROPYL ETHER	D	C	B	D	C	B	D	D	D	D	A1	-	A	B	-	B	-	A	A	-	A	-	A
JET FUEL (JP3, -4, -5)	D	D	A	D	D	A	A	D	A1	A	A	-	B	A1	-	A1	-	A	A	A	A	A	A
KEROSENE	D	C	A	D	D	A	A	D	A2	A	A	D	C1	A1	B	A2	A	A	A	A	A	A	A
KETONES	-	D	D	A	-	D	D	D	D	C1	A	D	C1	C	-	B	D	A	A	A	-	A	A
LACQUERS	D	D	D	D	D	D	D	D	D	D	A	-	B1	C	-	C	-	A	A1	-	A	C	A
LACQUER THINNERS	D	D	D	D	D	D	D	D	D	-	A	-	B1	C	-	C	-	A	A1	C	A	C	A
LACTIC ACID	A	A	A	A	A	A	A	A	B	B1	A	A	A1	A1	-	B1	A	B1	B1	B	B2	D	B1
LARD	B	C	A	D	D	A	A	D	B	A	A	-	B1	B1	-	A1	-	A	A	A	A	A	A
LATEX	-	-	A	-	-	A	A	A	C	A	A	-	-	A2	-	-	-	A2	A2	-	-	-	A
LEAD ACETATE	D	B	B	A	D	B	D	A	D	A	A	A	A2	A1	-	A2	A	B1	B	A1	B1	A	B1
LEAD SULFAMATE	B	A	B	B	A	B	A	A	A	A	A1	-	A1	A2	-	A2	-	C	C	-	-	-	-
LIGROIN	D	B	A	D	C	A	A	D	B	A	-	-	C2	A2	-	-	-	A	-	-	-	-	-
LIME	-	A	A	-	-	A	A	D	B	A	A1	-	-	B1	-	-	-	A	A	A	-	A	-
LUBRICANTS	D	B	A	D	D	A	A	D	A	A	A	-	D	A1	-	B2	-	A2	A2	A	A2	A	A
MAGNESIUM CARBONATE	-	-	A2	-	-	A2	A	A	A	A	A1	-	A2	A	-	A2	-	A1	A1	A	A	-	-
MAGNESIUM CHLORIDE	A	A	A	A	A	A	A	A	A	A	A	A	A2	A	-	A2	A	A1	B1	A	B	D	A2
MAGNESIUM HYDROXIDE	A	B	B	B	A	B	A	A	A	A	A	-	A2	A	-	A2	-	A1	B	A	B	A	B1
MAGNESIUM NITRATE	-	A	A	-	-	A	A	A	A	A	A	-	A2	A	-	A2	-	A1	A	A	A	D	A
MAGNESIUM OXIDE	-	A	A	-	-	A	C	-	A	-	-	-	-	-	-	-	-	A	-	-	-	A	-
MAGNESIUM SULFATE	A	A	A	B	A	A	A	A	A	A	A	-	A2	A	-	A2	A	B	B	A	A	A	A2
MALEIC ACID	-	D	D	D	D	D	A	D	A	A	A	-	B2	A	-	A2	-	B	A	A	B	A	B
MALEIC ANHYDRIDE	-	D	D	D	D	D	A	D	D	A	-	-	-	D	-	-	-	-	-	-	-	-	-
MALIC ACID	B	B	A	A	B	A	A	D	A	A	A	A	B2	A1	-	A2	-	A2	A	A	B2	-	B
MASH	-	A	A	-	-	A	A	A	A	-	-	-	-	-	-	-	-	A	-	-	-	-	-
MAYONNAISE	-	A	C	D	-	C	A	-	-	A	D	-	B	-	-	D	-	A	C	-	-	D	A
MELAMINE	-	D	C	-	-	C	A	A	-	A	-	-	A	-	-	A2	-	D	-	-	-	D	-
MERCURIC CHLORIDE (DILUTE)	-	A	A	A	A	A	A	A	B	A	A	-	A2	A	-	A2	-	C	D	A1	D	D	C
MERCURIC CYANIDE	-	A	A	D	-	A	A	-	-	A	A	-	A2	A	-	B2	-	B	B	A	A	-	-
MERCURY	-	A	A	A	A	A	A	A	A	A	A	-	A2	B	-	B	-	A	A	A	A	A	A2
METHANOL (METHYL ALCOHOL)	A	A	A	A	A	A	A	A	A	A	A	A	A1	A	A	A1	A	A	A	B	A	A	A
METHYL ACETATE	D	B	D	D	D	D	D	B	B	D	A	-	B1	D	-	D	-	A	A	-	A	-	A

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METHYL ACRYLATE	D	B	D	D	D	D	D	B	B	D	-	-	-	D	-	-	-	-	-	-	-	-	-
METHYL ACETONE	-	D	D	A	-	D	A	-	D	D	A	-	-	-	-	D	-	A	A	-	A	-	-
METHYL ALCOHOL 10%	A	A	A	A	A	A	D	A	A	A	A	-	A1	A2	-	A1	-	A	A	B	A	A	A
METHYL BROMIDE	-	D	B	D	D	B	A	D	D	A	A	-	-	C	-	D	-	A	A	-	-	-	-
METHYL BUTYL KETONE	D	D	D	D	D	D	A	D	D	D	-	-	-	D	B	A	-	A	-	-	-	-	-
METHYL CELLOSOLVE	D	B	C	D	D	C	D	A	D	A	A	-	-	B1	-	B2	-	A	A	-	A	-	-
METHYL CHLORIDE	D	D	D	D	D	D	A	C	D	A	A	D	C	D1	B	D	D	A	A	A	B2	A	B
METHYL DICHLORIDE	-	-	D	-	-	D	A	D	D	A	-	-	-	D	-	A	-	-	-	-	-	-	-
METHYL ETHYL KETONE	D	D	D	D	D	D	D	A	B	C2	A	C	B2	A1	-	D	D	A	A	A	A	A	A
METHYL ISOBUTYL KETONE	D	D	D	D	D	D	D	C	D	A1	A	-	B1	C1	-	D	-	A2	A	A	A	A	A
METHYL ISOPROPYL KETONE	D	D	D	D	D	D	D	B	D	D	-	-	-	D	-	-	-	A	-	-	A	-	A
METHYL METHACRYLATE	C	D	D	D	D	D	D	D	D	D	-	-	-	D	-	-	-	-	-	-	-	-	-
METHYLAMINE	-	-	C1	B	-	D	D	A1	-	-	A	-	-	-	-	A	-	A	-	-	-	-	-
METHYLENE CHLORIDE	-	-	D	B	-	B	B	D	A1	B2	A	-	C1	B1	-	D	-	B	B	B	B	A	B
MILK	A	A	A	A	A	A	A	A	A	A	A	-	A2	B	-	A2	-	A2	A1	A	A	D	A
MOLASSES	-	A	A	A	-	A	A	-	A	B2	A	-	A	A	-	A2	-	A	A	A	A	A	A
MUSTARD	-	A	C	B	-	C	D	-	C	A	A	-	A	A	-	B	-	A	A	A	A	D	A
NAPHTHA	D	D	C	D	D	C	A	D	D	A	A	D	A	C	-	C	B	A	A	B	A	A	B
NAPHTHALENE	D	D	D	D	D	D	A	D	D	A	A	-	A	B2	-	D	-	A	A	A	A	A	A
NICKEL CHLORIDE	A	B	A	A	A	A	A	A	A	A	A	-	B2	A	-	A2	-	C	D	A	B1	D	B
NICKEL SULFATE	A	A	A	B	A	A	A	A	A	A	A	-	B2	A	-	A2	-	B1	B	B	B	D	B
NITRATING ACID (<15%H2SO4)	-	A	-	C	-	-	A	-	-	-	A	-	-	C	-	D	-	C	C	A	-	A	A
NITRATING ACID (>15%H2SO4)	-	A	-	C	-	-	-	-	-	-	A	-	-	C	-	D	-	C	C	C	-	C	A
NITRATING ACID (<1%ACID)	-	A	-	C	-	-	-	-	-	-	A	-	-	C	-	D	-	A	C	-	-	-	A
NITRATING ACID (<15%HNO3)	-	A	-	C	-	-	-	-	-	-	A	-	-	C	-	D	-	D	C	C	-	C	A
NITRIC ACID 5-10%	C	B	D	D	B	D	-	B	D	A	A	-	B2	A2	A	A1	-	A	A	A1	A1	D	A1
NITRIC ACID 20%	D	D	D	D	D	D	A	B	D	A	A	-	C1	A2	-	A1	-	A	A	A1	A1	D	A1
NITRIC ACID 50%	D	D	D	D	D	D	A	D	D	A	A	-	C1	D	A	B1	A	A1	A	A1	A1	D	A1
NITRIC ACID (CONCENTRATE)	D	D	D	D	D	D	A	D	D	A	A	D	C1	D	-	D	C	A1	A	A1	A2	D	B1
NITROUS ACID	-	D	-	C	-	-	A	A	D	-	A	A	-	A	-	A	-	A	A	-	-	-	-
NITROBENZENE	D	D	D	D	D	D	A	D	B	A1	A	D	C1	B1	A	D	D	A	B	A	A	C	D
OIL: ANILINE	D	D	D	D	D	D	B	B	D	A	A	-	-	A	-	D	-	A	A	D	A	A	B
OIL: ANISE	-	D	-	-	-	-	C	-	D	-	-	-	-	-	-	-	-	A	-	-	A	A	-
OIL: BAY	-	D	-	-	-	-	-	-	D	A	-	-	-	-	-	-	-	A	-	-	A	A	-
OIL: BONE	-	D	A	A	-	A	A	-	D	A	-	-	-	A	-	-	-	A	-	-	A	A	-
OIL: CASTOR	A	A	A	A	A	A	A	B	A	A	A	-	-	A	-	A	-	A	A	-	A	-	-
OIL: CINNAMON	-	C	-	-	-	-	A	-	D	-	-	-	-	-	-	-	-	A	A	-	-	-	-
OIL: CITRIC	-	D	-	-	-	-	A	-	D	A	D	-	-	-	-	-	-	A	-	-	-	D	A
OIL: CLOVE	-	C	A	A	-	A	A	-	-	-	-	-	-	-	-	-	-	A	A	-	-	-	A
OIL: COCOA NUT	A	C	A	A	D	A	A	C	A	A	A	-	-	A	-	A1	-	A	A	-	-	A	A
OIL: COD LIVER	B	B	A	A	D	A	A	A	B	A	A	-	-	A	-	A1	-	A	A	-	-	-	A
OIL: CORN	A	C	A	A	D	A	A	C	D	A	A	-	C	A	-	B	-	A	-	-	-	A	A
OIL: COTTON SEED	A	C	A	A	D	A	A	C	B1	A	A	-	B2	A	-	B2	-	A	A	A	-	A	A
OIL: CREOSOTE	D	C	B	B	D	B	A	D	D	A	A	-	C2	C1	-	C	-	B2	A2	A	A2	A	B
OIL: DIESEL FUEL (20, 30, 40, 50)	D	B	A	A	D	A	A	D	D	A	A	-	C1	A1	-	A2	-	A	A	B	A	A	B
OIL: FUEL (1, 2, 3, 5A, 6)	C	D	B	B	D	B	A	D	D	B	A	-	C1	C1	-	A2	-	A	A	A	A	A	A1
OIL: GINGER	-	A	A	A	-	A	A	A	A	A	-	-	-	-	-	-	-	A	A	-	D	-	-
OIL: LEMON	-	D	-	-	-	-	A	D	D	A	A	-	-	-	-	-	-	A	A	-	A	-	-
OIL: LINSEED	A	A	A	D	C	A	A	C	A	A	A	-	C1	A	-	A2	B	A1	A1	A	A	-	A
OIL: MINERAL	C	B	A	D	B	A	A	D	A	A	A	D	B1	B1	-	A1	-	A	A	A	A	-	A

# Chemical Resistance Chart

Ratings: A - No Effect, B - Minor Effect, C - Moderate Effect, D - Sever Effect (Not Recommended) Note: 1 - Satisfactory to 72°F, 2 - Satisfactory to 120°F	SILICONE	NEOPRENE	NITRILE	NATURAL RUBBER	HYPALON	BUNA-N	FKM (VITON®)	EPDM	DELIRIN	PVDF	TEFLON (TFE, FEP, PFA)	SANTOPRENE	POLYETHYLENE	POLYPROPYLENE	HALAR(ECTFE)	PVC	POLYSULPHONE	316L SS	304L SS	TITANIUM	ALLOY 20	CAST IRON	HASTALLOY C
OIL: OLIVE	D	B	A	D	B	A	A	B	-	-	A1	-	A1	A	-	C	-	A	A	A	A	-	A
OIL: ORANGE	D	C	A	-	-	A	A	-	D	A	-	-	-	-	A	-	-	A	A	A	A	-	A
OIL: PALM	-	D	A	-	-	A	A	-	D	A	-	-	-	-	A	-	A	A	A	A	A	-	A
OIL: PEANUT	A	B	A	D	B	A	A	C	D	A	A	-	-	D	-	A1	-	A	A	A	A	-	A
OIL: PEPPERMINT	-	D	D	-	-	D	A	-	D	A	-	-	-	-	-	-	-	A	A	A	-	-	
OIL: PINE	D	D	B	D	D	B	A	D	D	A	A	-	-	D	-	C	-	A	A	A	A	C	-
OIL: RAPESEED	D	B	B	D	D	B	A	A	D	A	-	-	-	D	-	-	-	A	A	A	A	A	-
OIL: ROSIN	-	-	A	-	-	A	A	-	-	A	A	-	B2	A2	-	C1	-	A1	A1	-	B1	-	A
OIL: SESAME SEED	-	D	A	-	-	A	A	-	D	A	A	-	-	-	-	A	-	A	A	A	A	-	A
OIL: SILICONE	C	A	A	A	A	A	A	A	A	A	A	-	A	A	-	A	-	A	B	-	A	A	A
OIL: SOYBEAN	A	C	D	D	C	D	A	C	D	A	A	-	A1	A1	-	A1	-	A	A	A	A	A	A
OIL: SPERM	-	D	A	-	-	A	A	-	D	A	-	-	-	-	-	-	-	A	A	A	A	-	-
OIL: TANNING	-	D	A	-	-	A	A	-	D	A	-	-	-	-	-	-	-	A	A	-	A	-	-
OIL: TURBINE	D	D	B	D	D	B	A	D	D	A	A	-	C	B	-	A1	-	A	A	A	A	A	-
OLEIC ACID	D	C	C	D	C	C	B	B	C1	A	A	C	C2	B1	-	C2	A	B	B1	B	B1	-	A2
OLEUM 25%	D	D	D	D	D	D	A	D	D	C1	A	-	D	D	-	D	-	B	B2	D	B	-	B
OLEUM 100%	D	D	D	D	D	D	A	D	D	C1	A	-	D	D	-	D	-	B	B2	D	B	-	B
OXALIC ACID (COLD)	B	B	B	B	B	B	A	A	C	A2	A1	A	A2	A2	-	A1	-	B1	B	D	B2	C	B
PARAFFIN	-	A	A	B	-	A	B	D	A	A	A	-	B	A1	-	A1	-	A	A	A	-	-	-
PENTANE	D	B	A	D	B	A	A	D	B	A	A	-	D	D	-	A	-	C	C	-	C	-	B
PERCHLOROETHYLENE	D	D	C	D	D	C	A	D	A	A	A	D	D	D	-	C1	D	A1	B2	A	B	A	B
PETROLATUM	-	A	A	C	-	A	A	A	B	A	C	-	B	D	-	B	-	A	-	-	A	-	A
PHENOL 10%	D	D	D	D	D	D	A	B	D	A	A	-	A2	B	-	C1	-	B	B	A	B	D	A
PHENOL (CARBOLIC ACID)	D	D	D	D	D	D	A	B	D	A	A	-	B1	B	-	C1	-	B	B	A	B	D	A
PHOSPHORIC ACID <40%	D	B	D	D	B	D	A	B	C1	A	A	-	A1	A	A	B2	-	B	A	B	B	D	A2
PHOSPHORIC ACID >40%	C	D	D	D	C	D	A	B	D	A	A	-	B1	B2	A	B2	-	B	A2	C	B	D	A2
PHOSPHORIC ACID (CRUDE)	C	D	D	D	C	D	A	B	D	A	A	-	B1	B2	-	B2	-	B	D	C	B	D	A2
PHOSPHORIC ACID ANHYDRIDE	-	A	D	D	C	D	A	B	D	D	-	-	-	A	-	-	-	-	-	D	-	-	-
PHOSPHORIC ACID (MOLTEN)	-	A	-	-	-	-	-	-	D	D	-	-	-	D	-	D	-	-	-	D	-	-	A
PHOTOGRAPHIC DEVELOPER	A	A	A	A	A	A	A	B	A	-	A	-	A	A	-	A	-	A	C	A	A	D	-
PHTHALIC ANHYDRIDE	-	A	B	C	-	B	A	A	-	A	A	-	-	D	-	D	-	A	A	-	A	-	A
PICRIC ACID	D	B	B	B	B	B	A	B	A	A1	A	-	-	B	-	D	-	B	B	A	B	A	B
Plating Solutions																							
ANTIMON PLATING 130°F	-	A	A	-	-	A	A	-	A	A	A	-	-	A	-	A	-	A	A	A	A	A	A
ARSENIC PLATING 110°F	-	A	A	-	-	A	A	-	A	A	A	-	-	A	-	A	-	A	A	A	A	A	A
Brass Plating																							
REGULAR BRASS BATH 100°	-	-	A	-	-	A	A	-	A	B	A	-	B	A	-	A	-	A	A	A	A	A	A
Bronze Plating																							
HIGH SPED BRASS BATH 110°	-	A	A	-	-	A	A	-	A	B	A	-	B	A	-	A	-	A	-	A	-	A	A
CU-CD BRONZE BATH R.T.	-	A	A	-	-	A	A	A	A	A	A	-	-	A	-	A	-	A	A	A	-	A	A
CU-SN BRONZE BATH 160°F	-	A	A	-	-	A	A	A	B	A	A	-	-	A	-	D	-	A	A	D	-	A	A
CU-ZN BRONZE BATH 100°F	-	A	A	-	-	A	A	-	A	A	A	-	-	A	-	A	-	A	A	A	-	A	A
Cadmium Plating																							
CYANIDE BATH 90°F	-	A	A	-	-	A	A	-	A	A	A	-	-	A	-	A	-	A	-	A	-	A	A
FLUOBORATE BATH 100°F	-	C	B	-	-	B	A	-	C	A	A	-	-	A	-	A	-	A	A	D	-	D	D
Chromium Plating																							
CHROMIC-SULFURIC BATH 130°F	-	D	D	-	-	D	C	-	D	C	A	-	-	A	-	A	-	C	-	A	-	A	D
FLUROSILICATE BATH 95°F	-	D	D	-	-	D	C	-	D	C	A	-	-	D	-	A	-	C	-	C	-	C	D
FLUORIDE BATH 130°F	-	D	D	-	-	D	C	-	D	C	A	-	-	A	-	A	-	D	-	C	-	C	D
BLACK CHROME BATH 115°F	-	D	C	-	-	C	C	-	D	C	A	-	-	A	-	A	-	C	-	A	-	A	D

# Chemical Resistance Chart

Ratings: A - No Effect, B - Minor Effect, C - Moderate Effect, D - Sever Effect (Not Recommended) Note: 1 - Satisfactory to 72°F, 2 - Satisfactory to 120°F	SILICONE	NEOPRENE	NITRILE	NATURAL RUBBER	HYPALON	BUNA-N	FKM (VITON®)	EPDM	DELIRIN	PVDF	TEFLON (TFE, FEP, PFA)	SANTOPRENE	POLYETHYLENE	POLYPROPYLENE	HALAR(ECTFE)	PVC	POLYSULPHONE	316L SS	304L SS	TITANIUM	ALLOY 20	CAST IRON	HASTALLOY C
BARREL CHROME BATH 95°F	-	D	D	-	-	D	C	-	D	C	A	-	-	A	-	A	-	D	-	C	-	C	D
Copper Plating (Cyanide)	-	D	D	-	-	D	C	-	D	C	A	-	-	A	-	A	-	D	-	C	-	C	D
COPPER STRIKE BATH 120°F	-	A	A	-	-	A	A	-	A	B	A	-	-	A	-	A	-	A	-	-	-	A	A
ROCHELLE SALT BATH 150°F	-	B	A	-	-	A	A	-	B	A	A	-	-	A	-	D	-	A	-	D	-	A	A
HIGH SPEED BATH 180°F	-	B	A	-	-	A	A	-	B	A	A	-	-	A	-	D	-	A	-	D	-	A	A
Copper Plating (Acid)	-	D	D	-	-	D	C	-	D	C	A	-	-	A	-	A	-	D	-	C	-	C	D
COPPER SULFATE BATH R.T.	-	A	A	-	-	A	A	-	A	A	A	-	-	A	-	A	-	D	-	A	-	A	D
COPPER FLUOBORATE BATH 120°F	-	C	B	-	-	B	A	-	C	A	A	-	-	A	-	A	-	D	A	D	-	D	D
Copper Plating (Misc)	-	D	D	-	-	D	C	-	D	C	A	-	-	A	-	A	-	D	-	C	-	C	D
COPPER PYROPHOSPHATE	-	A	A	-	-	A	A	-	A	A	A	-	-	A	-	A	-	A	-	A	-	A	A
COPPER (ELECTROLESS)	-	D	D	-	-	D	A	-	D	A	A	-	-	A	-	A	-	-	-	A	-	-	-
Gold Plating	-	D	D	-	-	D	A	-	D	A	A	-	-	A	-	A	-	-	-	A	-	-	-
CYANIDE 150°F	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	D	-	A	-	A	-	-	A
NEUTRAL 75°F	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	A	-	C	-	A	-	-	A
ACID 75°F	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	A	-	C	-	A	-	-	A
INDIUM SULFAMATE PLATING R.T.	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	A	-	C	-	A	-	-	A
Iron Plating	-	D	B	-	-	B	A	-	-	-	A	A	-	C	-	D	A	D	-	A	-	-	D
FERROUS CHLORIDE BATH 190°F	-	B	A	-	-	A	A	-	-	-	A	A	-	A	-	D	A	C	-	A	-	-	A
FERROUS AM SULFATE BATH 150°F	-	B	A	-	-	A	A	-	-	-	A	-	-	A	-	D	A	C	-	A	-	-	A
SULFATE-CHLORIDE BATH 160°F	-	C	B	-	-	B	A	-	-	-	A	-	-	A	-	D	-	D	-	A	-	-	D
FLUOBORATE 145°F	-	C	B	-	-	B	A	-	-	-	A	-	-	A	-	D	-	D	-	D	-	-	B
SULFAMATE 140°F	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	A	-	D	-	A	-	-	B
LEAD FLOBORATE PLATING	-	A	B	-	-	B	A	-	-	-	A	-	-	A	-	A	-	C	-	D	-	-	A
Nickel Plating	-	D	D	-	-	D	A	-	D	C	A	-	-	A	-	A	-	-	-	A	-	-	-
WATTS TYPE 115-160°F	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	D	-	C	-	A	-	-	A
HIGH CHLORIDE 130-160°F	-	B	A	-	-	A	A	-	-	-	A	-	-	A	-	D	-	C	-	A	-	-	A
FLUOBORATE 100-170°F	-	A	B	-	-	B	A	-	-	-	A	-	-	A	-	A	-	C	-	D	-	-	A
SULFAMATE 100-140°F	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	A	-	C	-	A	-	-	A
ELECTROLESS 200°F	-	D	D	-	-	D	A	-	-	-	A	-	-	D	-	D	-	-	-	-	-	-	-
RHODIUM PLATING 120°F	-	B	A	-	-	A	A	A	-	-	A	-	-	A	-	A	-	D	-	D	-	-	D
SILVER PLATING 80-120°F	-	A	A	-	-	A	A	A	-	-	A	-	-	A	-	A	-	A	-	A	-	-	A
TIN-FLUORBORATE PLATING 100°F	-	C	B	-	-	B	A	-	-	-	A	-	-	A	-	A	-	C	-	D	-	-	A
TIN-LEAD PLATING 100°F	-	C	B	-	-	B	A	-	-	-	A	-	-	A	-	A	-	C	-	D	-	-	A
Zinc Plating	-	D	D	-	-	D	A	-	D	C	A	-	-	A	-	A	-	-	-	A	-	-	-
ACID CHLORIDE 140°F	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	A	-	D	-	A	-	-	D
ACID SULFATE BATH 150°F	-	B	A	-	-	A	A	-	-	-	A	-	-	A	-	D	-	C	-	A	-	-	D
ACID FLUOBORATE BATH R.T.	-	C	B	-	-	B	A	-	-	-	A	-	-	A	-	A	-	C	-	D	-	-	A
ALKALINE CYANIDE BATH R.T.	-	A	A	-	-	A	A	-	-	-	A	-	-	A	-	A	-	A	-	A	-	-	A
Plating Solutions	-	D	A	B	-	A	A	-	B	-	-	-	B	A	-	C	-	A	A	-	A	C	B
POTASH	-	D	A	B	-	A	A	-	B	-	-	-	B	A	-	C	-	A	A	-	A	C	B
POTASSIUM BICARBONATE	-	A	A	B	-	A	A	-	C	B	A	-	A	A	-	A	-	B	B	A	B	A	B
POTASSIUM BROMIDE	-	A	A	B	-	A	A	A	A	A	A	-	A	A	-	A	-	B	C	A	B	-	B
POTASSIUM CHLORATE	-	A	C	B	-	C	A	A	B	A	A	B	A	A	-	A	A	B1	B	A1	B	A	B
POTASSIUM CHLORIDE	A	A	A	A	A	A	A	A	B	A	A	A	A	A	-	A	-	B1	B	A	B1	-	C
POTASSIUM CHROMATE	-	A	A	B	-	A	A	A	A	A	A	-	A	A	-	A	-	B1	A	A1	A	A	B
POTASSIUM CYANIDE SOLUTIONS	A	A	A	B	-	A	A	A	C	B	A1	-	A	A	-	A	-	B1	B1	-	B1	A	A
POTASSIUM DICHROMATE	A	A	A	B	A	A	A	A	C	A	A	-	A	A	-	A	-	B	B1	A	B	A	B
POTASSIUM FERROCYANIDE	-	-	A	A	-	A	A	A	C	A	A	-	A	A	-	B	-	B	B	A	B1	A	B
POTASSIUM HYDROXIDE (CAUSTIC POTASH)	C	B	B	B	A	B	B	A	-	A	A	A	A1	A	A	A	A	B1	A	B1	-	-	B



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	SILICONE	NEOPRENE	NITRILE	NATURAL RUBBER	HYPALON	BUNA-N	FKM (VITON®)	EPDM	DELIRIN	PVDF	TEFLON (TFE, FEP, PFA)	SANTOPRENE	POLYETHYLENE	POLYPROPYLENE	HALAR(ECTFE)	PVC	POLYSULPHONE	316L SS	304L SS	TITANIUM	ALLOY 20	CAST IRON	HASTALLOY C
POTASSIUM NITRATE	A	A	A	A	A	A	A	A	D	A	A	-	A	A	-	A	-	B	B	A	B1	C	B1
POTASSIUM PERMANATE	-	A	C	B	-	C	A	A	B	A	A	-	B	A	-	A1	-	B1	B	A	B	-	B1
POTASSIUM SULFATE	A	A	A	B	B	A	A	A	C	A	A	-	A	A1	-	A2	-	B1	B	A	A1	A	A1
POTASSIUM SULFIDE	A	A	A	B	B	A	A	A	B	A	A	-	A2	A	-	A2	-	A1	B	A	A	A	B1
PROPANE (LIQUIFIED)	D	B	A	D	B	A	A	A	D	-	A	-	C1	B1	-	A1	-	A	A	-	A2	-	-
PROPYLENE GLYCOL	-	C	A	-	-	A	A	-	A	A	A	-	B2	A2	-	C1	-	B	B	A	A	-	A
PYRIDINE	D	D	D	D	D	D	D	B	B	-	A	C	B1	A2	A	D	D	A	A	B	A	A	B
PYROGALLIC ACID	-	-	-	-	-	-	A	-	A	C	A	-	-	A	-	A	-	B2	B	A	B1	A	B
ROSINS	-	-	A	-	-	A	-	-	D	B	A	-	B1	A2	-	C1	-	A1	A1	-	B	-	B
RUM	-	A	A	-	-	A	A	-	B	-	-	-	-	A	-	A	-	A	A	-	A	-	-
RUST INHIBITORS	-	C	A	-	-	A	A	-	A	-	-	-	-	A	-	-	-	A	A	-	A	-	-
SALAD DRESSINGS	-	-	A	-	-	A	A	-	A	-	-	-	-	A	-	-	-	A	A	-	A	-	-
SEA WATER	A	A	A	A	A	A	A	A	A	A	A	-	A2	A	-	A2	-	A	C	A	A	D	-
SHELLAC (BLEACHED)	-	D	A	-	-	A	-	-	A	-	A	-	A1	A	-	-	-	A	A	-	A	A	-
SHELLAC (ORANGE)	-	D	A	-	-	A	-	-	A	-	A	-	A1	A	-	-	-	A	A	-	A	A	-
SILICONE	C	A	A	A	A	A	A	A	A	-	A	-	-	A	-	A	-	A	B	-	-	A	-
SILVER BROMIDE	-	-	-	-	-	-	-	-	C	-	A	-	-	-	-	-	-	A	D	-	A	-	A
SILVER NITRATE	A	A	B	A	A	B	A	A	A	A	A	A	B2	A1	A	A1	A	B	B	A	B	D	A
SOAP SOLUTIONS	A	A	A	B	A	A	A	A	A	A1	A	A	C	-	-	A	A	A	A1	A	A	A	A
SODA ASH (SEE SODIUM CARBONATE)																							
SODIUM ACETATE	D	B	B	A	D	B	D	A	B	A	A	-	B2	A	-	B2	-	B	B1	A	B	-	A
SODIUM ALUMINATE	-	A	A	B	-	A	A	A	B	-	A	-	-	-	A	-	-	A	A	A	A	-	B
SODIUM BICARBONATE	D	B	B	A	D	B	A	A	A	A	A	A	A2	A	-	A2	A	B	A1	A2	A	C	B1
SODIUM BISULFATE	-	C	B	A	-	B	A	A	B	A	A	A	A2	A	-	A2	A	B1	D	A	A2	D	B2
SODIUM BISULFITE	A	A	A	A	A	A	A	A	B	A	A	A	A2	A	-	A2	A	B1	A	B1	A	D	B
SODIUM BORATE	A	A	A	A	A	A	A	A	-	A	A	A	A2	A2	-	A2	A	B2	C	A	A	-	A
SODIUM CARBONATE	A	A	A	A	A	A	A	A	A1	A	A	A	B2	A	-	A2	A	C	B	A1	A2	A	A
SODIUM CHLORATE	-	A	C	A	-	C	A	A	A1	A	A	A	B2	A	-	A1	A	B1	B1	A	B1	-	B1
SODIUM CHLORIDE	A	A	A	A	A	A	A	A	A1	A	A	A	A2	A	-	A2	A	C	B	A	B	A	A
SODIUM CHROMATE	-	A	A	-	-	A	A	-	D	-	A	-	-	-	-	-	-	B1	B	-	B	A	A
SODIUM CYANIDE	A	A	A	A	A	A	A	A	A	A	A	-	A2	A	-	A2	-	A1	B1	A	A	A	A
SODIUM FLUORIDE	-	D	A1	D	-	A1	A	A	-	A	A1	-	A2	A	-	A2	-	D	D	A	C	-	A
SODIUM HYDROSULFITE	-	A	-	A	-	-	A	-	-	-	A	B	-	-	-	C	-	-	-	-	-	-	A
SODIUM HYDROXIDE (20%)	B	B	B	A	A	B	B	A	A	-	A	A	A2	A	-	A	A	A	B2	A1	A	A	B
SODIUM HYDROXIDE (50%)	B	B	B	A	A	B	B	A	C	A	A	C	A2	A	-	A	-	B	A1	B1	B	C	B
SODIUM HYDROXIDE (80%)	C	B	B	A	A	B	B	A	D	-	A1	-	B2	A	A	A	-	C	B1	D	B	C	A1
SODIUM HYPOCHLORITE (<20%)	B	B	B	C	B	B	A	B	D	A	A	C	A	B	A	A	A	C	C	C	C	D	A
SODIUM HYPOCHLORITE (100%)	B	B	B	C	B	B	A	B	D	A	A	-	B2	B	A	C2	A	D	D	C	C	D	B
SODIUM HYPOSULFATE	-	C	-	C	-	-	-	-	-	-	A	-	-	-	-	-	-	A	A	-	-	-	-
SODIUM METAPHOSPHATE	-	B	A	A	B	A	A	A	B	-	A	-	A1	A1	-	B2	-	A	A	-	-	D	-
SODIUM METASILICATE	-	A	A	-	-	A	A	A	D	-	A	-	-	A	-	A	-	A	A	-	B	-	A
SODIUM NITRATE	D	B	B	B	A	B	A	A	A	A	A	B	A2	A	-	A2	-	B1	B1	A	B	A	B
SODIUM PERBORATE	B	B	B	B	B	B	A	A	B	-	A	-	A1	A	-	A2	-	B	B	-	A	C	B
SODIUM PEROXIDE	D	B	B	B	B	B	A	A	D	A	A	-	A	B	-	B2	-	A	A	-	B	C	B
SODIUM POLYPHOSPHATE	D	B	A	A	A	A	A	A	B	A	A	-	A	A	-	A1	-	B	B	A	B	D	A
SODIUM SILICATE	-	A	A	A	A	A	A	A	C	A	A	A	A2	A	-	A2	A	A	B	A	B	A	B
SODIUM SULFATE	A	A	A	B	A	A	A	A	B	A	A	-	A2	A	-	A2	A	B	B1	A	B1	A	B
SODIUM SULFIDE	A	A	A	B	A	A	A	A	B	A	A	-	A2	A	-	A2	-	B	D	A	-	A	B1
SODIUM SULFITE	A	A	A	B	A	A	A	A	-	A	A	A	B1	A2	-	A2	-	B	A	A	B	A	B
SODIUM TETRABORATE	-	-	A	-	-	A	A	-	B	-	A	-	A2	-	-	A2	-	A2	A	-	A	-	-

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SODIUM THIOSULFATE (HYPO)	A	A	B	B	A	B	A	A	C1	A	A	-	A1	A2	-	A2	-	A2	B	A	A2	C	A2
SORGHUM	-	A	A	-	-	A	A	-	A	-	-	-	-	-	-	-	-	A	A	-	A	A	-
SOY SAUCE	-	A	A	D	-	A	A	-	A	-	-	-	-	-	-	-	-	A	A	-	A	D	B
STANNIC CHLORIDE	B	D	A	A	D	A	A	B	C	A	A	-	A2	A	-	A2	-	D	D	A	A	D	B
STANNIC FLUOBORATE	-	A	A	-	-	A	A	-	C	-	-	-	-	-	-	-	-	A	-	-	-	D	-
STANNOUS CHLORIDE	B	A	A	A	A	A	A	A	-	A	A	-	B2	A	-	A1	-	A2	C2	A	A1	-	B
STARCH	D	A	C	-	-	C	A	A	A	-	A	-	B	A2	-	A	-	A	A	-	-	C	-
STEARIC ACID	-	B	B	B	B	B	A	B	A	A	A	A	B1	A2	-	B2	-	A	B	A	B	C	B
STODDARD SOLVENT	D	C	A	D	D	A	A	D	A	A	A	-	C2	C	-	C1	-	A	A	A	A	A	A
STYRENE	D	D	D	D	D	D	B	D	A	-	A	-	-	-	-	D	-	A	A	-	A	-	D
SUGAR (LIQUIDS)	A	B	A	A	B	A	A	A	A	-	A	D	-	A	-	-	-	A	A	-	A	-	A
SULFATE (LIQUORS)	-	A	A	-	-	A	A	A	D	A	A	-	A2	A	-	B	-	B	B	-	B	D	B
SULFUR CHLORIDE	C	D	D	D	D	D	A	D	D	A1	A	-	C1	C1	-	C1	C	D	D	D	B	D	A
SULFUR DIOXIDE	B	B	D	B	C	D	A	A	B	A	A	-	B1	A1	-	A1	C	A1	D	A	B	-	C
SULFUR DIOXIDE (DRY)	B	D	D	C	D	D	A	A	B	A	A	A	A1	A1	A	A2	-	A	D	A	B	A	B
SULFUR TRIOXIDE (DRY)	D	D	D	B	D	D	A	B	D	C1	A	A	C1	D	-	A1	-	A	D	D	B	-	B
SULFURIC ACID (<10%)	D	B	D	C	C	D	A	B	D	A	A	C	A1	A2	-	A1	A	B	D	D	B	D	B1
SULFURIC ACID (10-75%)	D	C	D	C	C	D	A	B	D	A	A	-	A1	A1	-	A1	B	D	D	D	B	D	B1
SULFURIC ACID (75-100%)	D	D	D	D	B	D	A	B	-	A	A	A	B1	C1	-	D	D	C	D	B	D	B1	
SULFURIC ACID (HOT CONC)	D	D	D	D	D	D	A	D	-	C	A	B	D	D	-	D	-	C	D	D	B	D	D
SULFURIC ACID (COLD CONC)	D	D	D	D	B	D	A	B	-	A	A	-	C	A2	-	D	-	B	C	D	B	D	A1
SULFUROUS ACID	D	B	B	B	A	B	A	B	C	A	A	-	B2	A	-	A2	A	B	B1	A	B	D	B
SULFURYL CHLORIDE	D	-	-	-	-	-	-	-	A	-	A	A	-	-	-	-	-	-	-	-	-	-	-
TALLOW	-	A	-	-	-	A	A	-	A	-	A	-	C	A2	-	-	-	A	A	-	-	-	-
TANNIC ACID	-	B	A	A	B	A	A	A	B	B	A	-	B2	A	-	A1	A	A	B1	A	B	C	B1
TANNING LIQUORS	B	A	A	-	-	A	A	B	B	-	A	A	A1	A1	-	A1	-	A2	A2	A	A2	-	B
TARTARIC ACID	-	B	A	A	A	A	A	B	B	B	A	A	A1	A	-	A1	A	C2	C2	A1	B1	C	B
TETRACHLOROETHANE	A	-	D	D	-	D	A	-	A	A	A	-	-	C	-	C	-	A	B	A	-	-	A
TETRACHLOROETHYLENE	-	D	D	D	D	D	A	D	A	-	A	-	B	D	-	D	C	A	-	-	-	-	-
TETRAHYDROFURAN	-	D	D	D	D	D	D	B	A	B1	A	-	C1	C2	-	D	-	A	A	B	A	-	A
TOLUENE (TOLUOL)	-	D	D	D	D	D	A	D	C1	A1	A	D	C1	C1	A	D	-	A	A	A	A	A	A
TOMATO JUICE	D	A	A	-	-	A	-	B	A	A	A	-	A1	A	-	A	-	A	A	-	A	-	-
TRICHLOROETHANE	-	D	D	D	D	D	A	D	A	A	A	-	-	C	A	C	-	A	B	A	A	A	A
TRICHLOROETHYLENE	D	D	C	D	D	C	A	D	B	A1	A	D	C1	C1	A	D	C	B	B2	A	B	C	B
TRICHLOROPROPANE	D	A	A	-	-	A	A	-	A	-	A1	-	-	-	-	-	-	A	A	-	A	A	A
TRICRESYLPHOSPHATE	-	D	D	D	D	D	B	A	C	D	A	-	B1	A1	-	D	-	A2	B	B	A2	-	A
TRIETHYLAMINE	C	B	A	-	-	A	A	-	D	A2	A	A	-	D	-	A	-	A	-	-	-	A	-
TURPENTINE	-	D	A	D	D	A	D	A2	A	C	A	C	C1	B1	A	B1	-	A	A	B	A	-	B
URINE	D	D	A1	-	-	A1	A1	A1	A	A	A1	-	A2	A	A	A	-	A	A	-	A	A	-
VARNISH	-	D	B	D	D	B	A	D	A	-	A	-	C1	A	-	D	C	A	A	-	-	C	-
VEGETABLE JUICE	D	C	C	D	-	C	A	-	A	-	-	-	-	-	-	-	-	C	A	-	A	D	-
VINEGAR	-	B	B	B	A	B	A	A	B	B	A	-	B2	A	-	A2	-	A	A	A	A	C	A
WATER, ACID, MINE	A	C	A	B	-	A	A	A	A1	B	A	-	A2	A	-	A2	-	A	A	A	A	C	A
WATER, DISTILLED	B	A	A	A	-	A	A	C	A	A	-	A2	A	-	A2	-	A	A	A	A	A	D	A
WATER, FRESH	-	A	A	A	-	A	A	A2	A	A	A	A	A2	A	-	A2	A	A	A	A	A1	A	A
WATER, SALT	B	A	A	A	-	A	A	A	A	A	A	A	A2	A	-	A2	A	B	B	A	A	A	A
WEED KILLERS	-	C	A	-	-	A	A	-	A	-	-	-	-	-	-	-	-	A	A	-	-	-	-
WHEY	-	-	A	-	-	A	A	-	A	-	-	-	-	-	-	-	-	A	A	-	-	-	-