



Yamada[®]

Air Operated
Double-Diaphragm Pumps



Corrosion
Resistance Guide

Revised November 2001

Yamada America, Inc.
www.yamadapump.com

CORROSION RESISTANCE GUIDE

This booklet is intended as a general guide in the selection of proper pump construction materials. This listing includes the most common liquids used in industrial and processing applications. In using this guide, please take note of the following:

1. The chart data has been compiled from many sources believed to be reliable. **NO GUARANTEE IS IMPLIED OR EXPRESSLY STATED HEREIN.**
2. Because of the extensive scope of this field the tabulation is not complete nor conclusive. Corrosion rates may vary widely with concentration, temperature and the presence of abrasives. Impurities or other trace elements common in industrial liquids may inhibit or accelerate the reaction of the material being pumped and the effect on pump materials.
3. Chemicals or liquids may independently be compatible with a type of pump construction, the combination of several liquids may change the chemical compatibility with a given metal/plastic and elastomer. It is important that this is remembered when selecting acceptable materials of construction for a pump.
4. In the case of uncertainty regarding corrosion resistance, testing the materials of construction under conditions as close to actual as possible is recommended.

KEY TO RATINGS: **A** = Excellent, **B** = Good, **C** = Fair to Poor,
X = Not Recommended, **—** = No Data Available.

Data limited to % concentration and/or temperature (°F) shown; where not shown, temperature is 70°F.

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HALOGENATED SOLVENTS



WARNING!

HALOGENATED HYDROCARBON SOLVENTS, SUCH AS 1, 1, 1 TRICHLOROETHANE AND METHYLENE CHLORIDE, SHOULD NOT BE USED IN ALUMINUM EQUIPMENT. A VIOLENT EXPLOSION COULD RESULT.

- Carbon Tetrachloride
- Chloroform
- Dichlorethylene
- Methyl Chloride
- Methylene Chloride
- Trichlorethylene

| | | <i>Elastomers</i> | | | | | | | <i>Metal</i> | | | | <i>Plastic</i> | | | | |
|--|---|-------------------|---------------|--------------|---------------|------|------------|-------------|-----------------|------------------|--------------------------|-----------|---------------------|------------------|--------------|------|-------|
| | | BUNA N - NBR | NORDEL - EPDM | HYTREL - TPE | NEOPRENE - GR | PTFE | SANTOPRENE | VITON - FPM | ALUMINUM - T356 | CAST IRON - FC | STAINLESS STEEL - 316 SS | HASTELLOY | POLYPROPYLENE - PPG | DELIRIN (ACETAL) | KYNAR - PVDF | PTFE | RYTON |
| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Acetaldehyde (Ethanal) | CH ₃ CHO | X | A | B | X | A | B | X | A | C | A | A | C | A | A/150° | A | A |
| Acetamide (Acetic Acid Amide) | CH ₃ COHN ₂ | B | A | - | B | A | B | B | A | B | X | A | A | - | A/140° | A | A |
| Acetate Solvents | CH ₃ COOR | X | - | - | X | A | B | X | A | X | A | - | X | A | A | A | A |
| Acetic Acid - 20% | | C | A | X | B | A | A | C | B | X | A | C | B | A | A | A | - |
| 30% | | C | A | X | B | A | A | X | C | X | A | C | C | B | B | A | - |
| 50% | CH ₃ COOH | C | A | - | C | A | A | C | X | X | A | C | C | B | B | A | - |
| Glacial | CH ₃ COOH | C | B | X | X | A | A | X | X | X | A | A | C | B | A/120° | A | A |
| Acetic Anhydride (Acetic Oxide) | (CH ₃ CO) ₂ O | C | B | C | B | A | A | X | B | B 212° 90% | A | A | X | X | B/70° | A | A |
| Acetone (Dimethylketone) | CH ₃ COHO ₃ | X | A | C | X | A | A | X | B | A | B | A | X | B | X | A | A |
| Acetone Cyanohydrin | (CH ₃) ₂ C(OH)CH | X | X | - | B | A | A | X | A | C | A | - | - | - | - | A | - |
| Acetonitrile (Methyl Cyanide) | CH ₃ CN | C | A | - | A | A | B | X | A | A | B | B | B/100° | A | A | A | - |
| Acetophenone (Phenyl Methyl Ketone) | CH ₆ H ₅ COCH ₃ | X | A | - | X | A | B | X | B | B | A | B | A/70° | - | A | A | A |
| Acetyl Acetone (2,4-Pentanedione) | CH ₃ COCH ₂ COH ² | X | A | - | X | A | B | X | B | X | B | - | - | - | - | A | - |
| Acetyl Chloride | CH ₃ COCl | X | C | X | X | A | B | B | X | X | B | A | X | - | A | A | A |
| Acetylene (Ethyne) | HC = CH | A | A | A | C | A | C | A | A | A | A | A | X | A | A | A | A |
| Acetyl Salicylic Acid (Aspirin) | (CH ₃ OCO) CH ₆ ₄ COOH | - | B | - | X | A | A | - | A | X | B | - | - | - | - | A | - |
| Acetylene Tetrabromide (Tetra Bromoethane) | (CHBr ₂) ₂ | X | - | - | X | A | X | A | X | X | A | - | - | - | - | A | - |
| Acrolein (Acrylaldehyde) | H ₂ C=CHCHO | B | - | - | - | A | A | A | A | B | B | - | - | - | - | A | - |
| Acrylonitrile (Vinyl Cyanide) | CH ₂ =CHCN | X | X | - | X | A | A | X | A | B | A | A | B | - | A | A | - |
| Adipic Acid (1,4-Butanedicarboxylic Acid) | H ₀₀ C(CH ₂) ₄ COOH | B | - | - | X | A | B | B | B | B | B | A | A | A | A | A | - |

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| | | Elastomers | | | | | | Metal | | | | Plastic | | | | | |
|---|--|--------------|---------------|--------------|---------------|------|------------|-------------|-----------------|----------------|--------------------------|-----------|---------------------|------------------|--------------|------|-------|
| | | BUNA N - NBR | NORDEL - EPDM | HYTREL - TPE | NEOPRENE - CR | PTFE | SANTOPRENE | VITON - FPM | ALUMINUM - T356 | CAST IRON - FC | STAINLESS STEEL - 316 SS | HASTELLOY | POLYPROPYLENE - PPG | DELTRIN (ACETAL) | KYNAR - PVDF | PTFE | RYTON |
| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Alcohols | | | | | | | | | | | | | | | | | |
| Allyl Alcohol (2-Propen-1-ol) | R-OH | A | A | - | A | A | B | B | B | A | A | - | - | - | - | A | A |
| Amyl (1-Penatol) | C ₄ H ₉ CH ₂ O | B | A | A | B | A | A | B | B | A | A | A | B | A | A | A | - |
| Benzyl (Phenylcarbinol) | C ₆ H ₅ CH ₂ OH | X | B | - | B | A | A | A | B | A | A | A | A | A | A | A | A |
| Butyl (Butanol) | C ₃ H ₇ CH ₂ OH | A | B | B | A | A | A | A | B | B | A | A | B | A | A | A | - |
| Decyl Alcohol (Decanol) | | A | - | - | X | A | - | B | - | - | - | A | - | A | - | A | A |
| Denatured Alcohol | | A | A | - | B | A | A | B | B | B | A | A | A | A | A | A | - |
| Diacetone (Tyranton) | (CH ₃) ₂ C(OH)CH ₂ COCH ₃ | X | B | - | X | A | B | X | A | A | A | A | X | A | A | A | - |
| Ethyl (Ethanol) | CH ₃ CH ₂ OH | X | A | A | A | A | B | X | B | A | A | A | B | A | A | A | - |
| Ethyl Butyl Alcohol | | A | A | - | A | A | A | B | B | A | A | A | A | A | A | A | - |
| Hexyl (1-Hexanol) | C ₅ H ₁₁ CH ₂ OH | A | B | - | B | A | B | B | A | A | A | A | A/70° | A | A | A | - |
| Isoamyl Alcohol | | A | A | - | A | A | A | A | A | A | A | A | A | A | A | A | - |
| Isobutyl (Isobutanol) | | B | A | - | B | A | A | B | B | B | A | A | A | - | A/150° | A | - |
| Isopropyl (Isopropanol) | | A | A | A | B | A | A | A | A | A | A | A | A | - | A | A | - |
| Lauryl Alcohol (n-Dodecanol) | | A | - | - | - | A | B | B | A | A | A | A | - | - | - | A | - |
| Methyl Amyl Alcohol | | A | A | - | A | A | A | A | B | B | A | A | A/120° | - | A | A | - |
| Methyl (Methanol) | | A | - | A | B | A | B | B | A | A | A | A | A | - | A | A | - |
| Octyl (Caprylic Alcohol) | | B | A | - | B | A | B | A | A | A | A | A | A | - | A/120° | A | - |
| Propyl (Propanol) | C ₂ H ₅ CH ₂ OH | A | A | - | - | A | - | B | A | A | A | A | A | - | A | A | - |
| Tridecyl Alcohol | | B | - | - | X | A | - | B | X | X | - | A | - | - | - | A | - |
| Allyl Bromide (3-Bromopropene) | H ₂ C=CHCH ₂ Br | X | X | - | X | A | - | B | X | X | B | A | A/70° | - | A | A | - |
| Allyl Chloride (3-Chloropropene) | CH ₂ =CHCH ₂ Cl | X | - | - | X | A | X | A | X | - | B | A | A/70° | A | - | A | - |
| Alkazene (Chlorethyl or Polyisopropyl benzenes) | | X | - | - | X | A | B | - | - | - | - | - | - | - | - | A | - |
| Alum (Aluminum Potassium Sulfate (Dodecahydrate)) | KAl(SO ₄) ₂ * 12H ₂ O | A | A | - | A | A | A | X | - | - | B | A | A | - | A | A | - |
| Aluminum Acetate (Burow's Solution) | | C | A | - | C | A | A | X | B | C | A | A | A/100° | A | A | A | - |
| Aluminum Ammonium Sulfate (Alum) | AlNH ₄ (SO ₄) ₂ | B | - | - | B | A | A | A | - | - | - | - | A | - | A | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Aluminum Bromide | AlBr ₃ | B | A | - | A | A | - | - | - | - | - | - | - | - | A | A | - |
| Aluminum Chloride | AlCl ₃ | A | A | B | A | A | A | A | X | C | B | A | A | B | A | A | - |
| Aluminum Fluoride | AlF ₃ | A | B | - | A | A | A | A | A/50% | C | C | A | A | X | A | A | - |
| Aluminum Hydroxide (Alumina Trihydrate) | Al(OH) ₃ | B | A | - | A | A | A | C | B/10% | B/30% | B | B | A | - | A | A | - |
| Aluminum Nitrate | Al(NO ₃) ₃ * 9H ₂ O | A | A | - | A | A | A | A | X | - | A/10% | B | A | - | A | A | - |
| Aluminum Phosphate | AlPO ₄ | A | A | - | A | A | A | A | - | - | - | - | - | - | - | A | A |
| Aluminum Potassium Sulfate (Potash Alum) | KAl(SO ₄) ₂ | A | A | - | A | A | A | A | A/10% | X | A | B | A | A | A | A | - |
| Aluminum Sodium Sulfate (Soda Alum) | NaAl(SO ₄) ₂ | A | A | - | A | A | - | A | - | - | A | - | - | - | - | A | A |
| Aluminum Sulfate (Cake Alum) | Al ₂ (SO ₄) ₃ | A | A | B | A | A | A | A | B/30% | X | A 167° 50% | A | A | B | A | A | - |
| Amines | R-NH ₂ | X | A | A/70% | B | A | A | X | A | - | A | A | B | C | X | A | - |
| Ammonia Anhydrous, Liquid | NH ₃ | B | A | X | B | A | A | X | A | A | A | - | A | X | A | A | - |
| Ammonia Gas - Cold | | A | - | - | A | A | A | A | - | - | - | - | - | - | - | A | - |
| Ammonia Gas - Hot | | C | - | - | B | A | A | X | - | - | - | - | - | - | - | A | A |
| Ammonia Liquors | | - | - | - | A | A | A | X | A | A | A | A | - | - | - | A | - |
| Ammonia Cupric Sulfate | (NH ₄) ₂ Cu(SO ₄) ₂ | A | - | - | - | A | - | A | - | - | - | - | - | B | - | A | - |
| Ammonium Acetate | CH ₃ CO ₂ NH ₄ | - | - | - | A | A | A | A | A | B/50% | A/50% | - | - | - | - | A | - |
| Ammonium Bicarbonate | NH ₄ HCO | A | A | - | A | A | B | A | B | B | B/90% | - | - | - | - | A | - |
| Ammonium Bifluoride - 10% | NH ₄ HF ₂ | B | A | - | X | A | A | A | C | X | B | B | A | - | A | A | - |
| Ammonium Carbonate | (NH ₄) ₂ CO ₃ | X | A | - | B | A | A | A | B | B | B 212° 70% | B | A | - | A | A | A |
| Ammonium Casenite | | - | - | - | A | - | A | - | - | - | B | - | - | - | - | - | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Ammonium Chloride (Sal Ammoniac) | NH ₄ Cl | A | A | A | A | A | A | A | X | X | A/30% | A | A | - | A | A | - |
| Ammonium Dichromate | (NH ₄) ₂ Cr ₂ O ₇ | A | A | A | A | A | A | - | A | A | B | - | - | X | - | A | - |
| Ammonium Fluoride | NF ₄ F | B | A | - | B | A | - | A/20% | B/10% | B/20% | A/50% | A | B | - | A | A | - |
| Ammonium Hydroxide (Aqua Ammonia) | NH ₄ OH | B | A | - | B | A | A | B | B/30% | B/30% | B | A | A | - | A | A | - |
| Ammonium Metaphosphate | | A | A | - | A | A | - | A | B/90% | B | A | A | A | B | A | A | A |
| Ammonium Nitrate | | A | A | - | A | A | A | A | B | A | - | A | A | - | A | A | - |
| Ammonium Nitrite | NH ₄ NO ₂ | A | - | - | A | A | A | - | - | - | A | - | A/70% | A | A | A | A |
| Ammonium Oxalate | (NH ₄ OOX) ₂ | A | - | - | A | - | A | - | - | - | - | A | B | - | B | A | - |
| Ammonium Persulfate | (NH ₄) ₂ S ₂ O ₈ | B | A | - | A | A | A | A | C | X | A | - | A | - | A | A | - |
| Ammonium Phosphate, Monobasic | (NH ₄)H ₂ PO ₄ | A | A | B | A | A | A | A | X | X | B | A | A | A | A | A | - |
| Ammonium Phosphate, Di Basic | (NH ₄) ₂ HPO ₄ | A | - | - | A | A | A | A | B | - | A | A | A | B | A | A | A |
| Ammonium Phosphate, Tri-Basic | (NH ₄) ₂ PO ₄ * 3H ₂ O | A | - | - | A | A | A | A | X | - | B | B | A | - | A | A | - |
| Ammonium Sulfate | (NH ₄) ₂ SO ₄ | A | A | C | A | A | A | A | X | B | A 212° 80% | B | A | B | A | A | A |
| Ammonium Sulfide | (NH ₄) ₂ S | A | - | A | A | - | A | B | C | B | B | - | A | - | A | A | |
| Ammonium Sulfite | (NH ₄) ₂ SO * 3H ₂ O | A | - | - | - | A | - | A | C | X | B | A | A | X | A | A | - |
| Ammonium Thiocyanate | NH ₄ SCN | A | A | - | A | A | - | A | C | C | A/50% | A | B | | A | - | A |
| Ammonium Thiosulfate | (NH ₄) ₂ S ₂ O ₃ | A | A | - | A | A | A | A | A/40% | X | A/10% | A | - | - | B | A | - |
| n-Amyl Amine (1-Aminopentane) | CH ₃ CO ₂ C ₃ H ₁₁ | C | X | - | X | A | - | X | - | - | - | - | - | - | - | A | - |
| Amyl Borate | C ₅ H ₁₁ B ₀₃ | A | X | - | B | A | B | A | - | - | - | B | - | - | - | A | |

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| Amyl Chloride (Chloropentane) | CH ₃ (CH ₂) ₄ Cl | C | X | - | X | A | C | A | X | A | A | B | X | A | A | A | - |
| Amyl Chloronaphthalene | | X | - | - | X | A | C | A | - | - | - | - | - | - | - | A | - |
| Amyl Naphtalene | C ₁₅ H ₁₈ | X | X | - | X | A | C | A | - | - | - | - | - | - | - | A | - |
| Amyl Phenol | C ₆ H ₄ (OH)C ₅ H ₁₁ | X | - | - | - | A | - | A | A | A | A | A | - | A | - | A | - |
| Anilene (Anilene Oil) (Amino Benzene) | C ₆ H ₅ NH ₂ | X | C | X | X | A | A | B | B | A | A | B | A | B | A | A | A |
| Anilene Dyes | | X | C | - | X | A | B | B | B | C | B | - | A | - | A | A | - |
| Anilene Hydrochloride | C ₃ H ₅ NH ₂ * HCl | C | - | - | X | A | A | B | X | X | X | - | X | - | A | A | - |
| Animal Gelatin | | A | A | - | A | A | A | A | - | - | A | A | A | - | A | A | - |
| Anisole (Methylphenyl Ether) | C ₆ H ₅ OCH ₃ | C | - | - | X | A | - | X | B | B | B | - | - | B | - | A | - |
| Ansul Ether | | C | - | - | X | A | X | X | - | - | - | B | - | - | - | A | - |
| Anthraquinone | C ₁₄ H ₈ O ₂ | A | - | - | - | A | - | - | B | B | B | - | - | A | - | A | - |
| Anti-Freeze - Alcohol Base | | A | A | A | A | A | A | A | A | A | A | A | A | A | A | A | - |
| Glycol Base | | A | A | A | B | A | A | A | A | A | A | A | A | A | A | A | - |
| Antimony Pentachloride | SbCl ₃ | X | - | - | - | A | - | - | A | A | A | A | - | A | - | A | - |
| Antimony Trichloride | SbCl ₅ | B | A | - | - | A | - | A | B | A | A | A | A | B | A | A | - |
| Aqua Regia (Nitric & Hydrochloric Acid) | | X | X | - | X | A | X | B | X | X | X | C | C | C | A | A | X |
| Aroclor | PCB Mixtures | C | X | - | X | A | - | A | A | B | A | - | - | - | - | A | - |
| Aromatic Hydrocarbons | C ₆ H ₅ R | X | X | C | X | A | C | A | A | A | A | A | X | - | A | A | - |
| Aromatic Solvents (Benzene, etc.) | | C | X | X | X | A | - | A | A | B | A | A | B | - | A | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Arsenic Acid | AsH ₃ O ₄ | B | A | - | A | A | A | A | A | X | B | B | A | B | A | A | A |
| Arsenic Trichloride (Arsenic Butter) | AsCl ₃ | C | X | - | A | A | B | X | B | B | X | B | - | - | - | A | - |
| Absorbic Acid | C ₆ H ₈ O ₆ | - | - | - | - | A | - | A | A | X | A | - | - | - | - | A | - |
| Askarel (Pyranol) | PCB Mixtures | B | X | - | X | A | X | C | - | - | A | - | - | - | - | A | - |
| Asphalt | Hydrocarbons | B | X | - | C | A | B | A | A | B | A | - | A | - | A | A | - |
| Asphalt Topping | | B | - | - | A | A | - | B | - | A | A | - | - | B | A | A | - |
| ASTM - Ref Motor Fuel A (Aliphatic) B (30% Aromatic) C (50% Aromatic) | | A A B | X X X | A/158° A/158° C | B X X | A A A | C X X | A A A | A A A | A A A | A A A | A A A | - - - | - - - | - - - | A A A | - - - |
| ASTM - Ref Oil #1 (High Anilene) #2 (Medium Anilene) #3 (Low Anilene) #4 (High Anilene) | | A A A B | X X X X | A/212° A A/212° - | B B C X | A A A A | B - - - | A A A A | A A A A | A A A A | A A A A | A A A A | - - - - | - - - - | - - - - | A A A A | - - - - |
| Aviation Gasoline | | A | X | - | C | A | X | A | A | A | A | A | - | - | - | A | - |
| Barbeque Sauce | Water, oils, spices | A | - | - | A | A | B | - | - | X | A | - | A | - | A | A | - |
| Barium Carbonate | BaCO ₅ | A | A | - | A | A | A | A | X | B | B | B | A | - | A | A | A |
| Barium Chloride Dihydrate | BaCl ₂ * 2H ₂ O | A | A | - | A | A | - | A | B/50% | B | B/212° | B | A | A | A | A | A |
| Barium Cyanide | Ba(CN) ₂ | C | - | X | A | - | A | A | - | - | A | - | X | - | - | A | - |
| Barium Hydroxide (Barium Hydrate) | Ba(OH) ₂ | A | A | B | A | A | A | A | X | B | B | 122° | A B | A | A | A | - |
| Barium Nitrate | Ba(NO ₃) ₂ | A | - | - | A | A | A | - | B | A | A | - | A | B | A | A | A |
| Barium Sulfate (Blanc Fixed) | BaSO ₄ | A | A | X | A | A | A | A | B | B | B | - | A | B | A | A | A |
| Barium Sulfide | BaS | A | A | - | A | A | A | A | X | - | B | - | A | - | A | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Beef Extract | | A | - | - | A | A | - | A | - | X | A | - | - | - | - | A | - |
| Beer | Water, Carbonate | C | A | B | A | A | A | A | A | X | A | - | A/75° | A | A/175° | A | A |
| Beet Sugar Liquors (Sucrose) | | A | A | - | A | A | A | A | A | B | A | - | A | B | A | A | - |
| Benzaldehyde | C6H5CHO | X | B | B | X | A | B | X | A | A | A | - | X | - | A | A | A |
| Benzene (Benzol) | C6H6 | X | X | C/70° | X | A | C | B | B | B | A/167° | B | X | A | B | A | A |
| Benzene Sulfonic Acid | C6H5DO3H | X | C | - | A | A | - | A | C | A | A | - | X | - | B/100° | A | A |
| Benzoic Acid (Benzene Carboxylic Acid) | C6H5COOH | X | B | - | B | A | A | A | B | X | B | - | X | B | A | A | A |
| Benzoyl Chloride | C6H2COCI | X | X | - | X | A | A | X | X | X | B | - | A | A | A | A | A |
| Benzyl Acetate | CH3CO2 CH2C6H5 | X | - | - | - | A | A | X | A | A | A | - | - | - | - | A | - |
| Benzyl Benzoate | C6H5CO2CH2C6H5 | X | B | - | X | A | C | A | A | B | B | - | - | - | - | A | - |
| Benzyl Chloride (Chlorotoluene) | C6H5CH2Cl | X | X | - | X | A | C | A | X | A | B | - | X | - | A | A | - |
| Benzyl Dichloride (Benzal Chloride) | C6H5CHCl | X | X | - | X | A | - | A | X | B | A | - | B | - | A | A | - |
| Benzol (Benzene) | C6H6 | X | X | C/70° | X | A | B | B | B | B | - | B | X | A | B | A | A |
| Biphenyl (Diphenyl) | C6H5C8H5 | X | X | - | X | A | - | A | A | A | - | - | - | - | - | A | - |
| Bismuth Subcarbonate (Bismuth Carbonate) | (BiO)2CO3 | A | A | - | A | A | - | A | - | - | B/10% | - | B | - | A | A | - |
| Black Sulfate Liquor | | B | A | B | A | A | B | A | C | B | A | B | - | - | - | A | - |
| Blast Furnace Gas | CO,H2,CH4,CO2,N2 | C | - | B | A | A | - | A | - | - | - | - | - | - | - | A | - |
| Bleach Solutions | Water, chlorine, oxygen | X | A | X | X | A | B | B | X | - | B | A | B/3% | - | A | A | - |
| Borax (Sodium Borate) | B4Na2O2 | B | A | A | A | A | A | A | B | B | A | A | A | B | A | A | A |
| Bordeaux Mixture | Copper sulfate salts | A | A | B | A | A | A | - | - | - | A | A | - | - | - | A | - |
| Boric Acid (Boracic Acid) | H3BO3 | A | A | A | A | A | A | A | A | X | A/30% | A | A | C | A | A | A |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Brake Fluid (non-petroleum base) | Silcones or glycols | X | A | - | A | A | A | - | A | A | A | A | X | - | - | A | - |
| Brewery Slop | | A | - | - | A | A | A | A | - | A | A | - | - | - | - | A | - |
| Brine (Sodium Chloride) | Salt Water | A | A | B | A | A | A | A | - | X | A | A | A | - | A | A | - |
| Bromine - Anhydrous | Br ₂ | X | C | X | X | A | C | A | B | C | X | A | X | - | A/150° | A | - |
| Bromine Trifluoride | BrF ₃ | X | X | - | X | A | C | X | A | - | B | - | X | - | - | A | - |
| Bromine Water | | X | X | - | B | A | B | B | X | - | X | A | C | - | A | A | - |
| Bromobenzene | C6H5Br | X | X | - | X | A | X | B | X | X | A | B | X | - | - | A | - |
| Bromochloromethane | BrCH ₂ Cl | X | B | - | X | A | - | C | X | B | B | B | - | - | - | A | - |
| Bromotoluene | C6H4BrCH ₃ | X | - | - | - | A | - | B | X | B | A | A | - | - | - | A | - |
| Bronzing Liquid | | X | B | - | X | A | A | X | - | - | A | A | - | - | - | A | - |
| Butadiene | C4H6 | X | C | - | C | A | A | C | A | - | A | A | X | - | A | A | A |
| Butane (LPG) (Buty Hydride) | C4H10 | A | X | A | B | A | C | A | A | A | A | - | X | B | A | A | A |
| Butter | Fats | A | A | B | C | A | A | A | A | X | A | A | A | - | - | A | - |
| Buttermilk | Fats, water | A | - | - | A | - | A | A | A | X | A | - | A | - | A/100° | A | - |
| Butyl Acetate | CH ₃ CO ₂ (CH ₂) ₃ CH ₃ | X | B | - | X | A | C | X | A | A | A | - | X | - | B | A | - |
| n-Butyl Acetate | CH ₃ CO ₂ (CH ₂) ₃ CH ₃ | X | B | - | X | A | B | X | A | A | A | A | - | - | - | A | - |
| Butyl Acetyl Ricinoleate | C ₂₄ H ₄₄ O ₅ | C | C | - | X | A | B | B | - | A | - | - | - | - | - | A | - |
| Butyl Acrylate | CH ₂ CHCO ₂ C ₄ H ₉ | X | X | - | X | A | C | X | - | - | - | - | - | - | C | A | - |
| Butyl Amine (Aminobutane) | CH ₃ (CH ₂) ₂ NH ₂ | B | X | - | X | A | A | X | A | A | A | - | X | C | B/70° | A | A |
| Butyl Benzoate | C ₆ H ₅ COO (CH ₂) ₃ CH ₃ | - | B | X | X | A | C | A | B | B | B | B | - | - | - | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Butyl Butyrate | CH ₃ (CH ₂) ₂ CH ₂ CO ₂ C ⁴ H ₂ | X | - | - | - | A | - | X | A | A | A | A | - | - | - | A | - |
| Butyl Carbitol | CH ₃ (CH ²) ₃ OCH CH ₂ OCH ₂ CH ₂ OH | A | A | - | B | A | B | A | - | - | - | - | - | - | - | A | - |
| Butyl Cellosolve | HOCH ₂ CH ₂ OC ₄ H ₉ | B | A | - | C | A | A | C | A | A | A | A | A | A | B | A | - |
| Butyl Chloride (Chlorobutane) | CH ₃ (CH ₂) ₃ CL | X | - | - | - | A | - | A | X | B | B | B | X | - | A | A | - |
| Butyl Ether (Dibutyl Ether) | (CH ₃ (CH ₂) ₃ CL | A | - | - | B | A | - | C | A | B | A | A | X | - | A/100° | A | A |
| Butyl Oleate | C ₂₂ H ₄₂ O ₂ | - | C | - | X | A | C | A | - | - | - | - | - | - | - | A | - |
| Butyl Stearate | CH ₃ (CH ₂) ₁₆ CO ₂ (CH ₂) ₃ CH ₃ | A | C | - | X | A | C | B | B | B | B | B | - | - | A | A | - |
| Butylene (Butene) | C ₄ H ₈ | B | X | - | X | A | X | B | A | - | A | A | X | - | A | A | A |
| Butyraldehyde | CH ₃ (CH ₂) ² CHO | X | C | - | X | A | C | X | A | A | A | A | - | - | B | A | - |
| Butyric Acid | CH ₃ (CH ₂)C ₀ ₂ H | C | C | B | X | A | C | X | A | A | A | A | A | - | A | A | - |
| Butyric Anhydride | (CH ₃ CH ₂ CH ₂ CO) ₂ O | C | C | B | X | A | A | C | A | X | B | A | - | X | A | A | A |
| Butyronitrile | CH ₃ CH ₂ CH ₂ CN | C | A | - | - | A | - | - | A | - | A | A | - | A | - | - | A |
| Calcium Acetate Hydrate | Ca(CH ₃ COO) ₂ * H ₂ O | X | A | X | C | X | A | X | C | - | B | - | - | - | - | - | A |
| Calcium Bisulfite | Ca(HSO ₃) ₂ | B | A | - | C | A | - | X | C | C | B | B | - | - | - | A | - |
| Calcium Carbonate (Chalk) | CaCO ₃ | A | A | - | A | A | - | A | C | B | A/90° | A | A | X | A | A | A |
| Calcium Chlorate | Ca(ClO ₃) ₂ | A | A | - | A | A | A | A | C | B | B | B | A | A | A | A | - |
| Calcium Chloride (Brine) | CaCl ₂ * 6H ₂ O | A | A | - | A | A | - | A | B/30% | B | A/30% | B | A | - | A | A | - |
| Calcium Hydrosulfide (Calcium Sulfhydrate) | Ca(HS) ₂ * 6H ₂ O | A | A | - | A | A | A | A | - | A | A | A | A | X | A | A | A |
| Calcium Hydroxide (Slaked Lime) | Ca(OH) ₀ ₂ | A | A | - | A | A | A | A | X | B | B | - | A | - | A | A | - |
| Calcium Hypochlorite 20% (Calcium Oxichloride) | Ca(ClO) ₂ | C | B | X | X | A | A | A | X | X | B | B | A | A | A | A | A |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Calcium Nitrate | Ca(NO3) ₂ | A | A | - | A | A | A | A | B 212° 40% | B 212° 30% | B 212° 40% | B | A | X | A | A | A |
| Calcium Oxide (Unslaked Lime) | CaO | A | A | B | A | A | B | A | A | A | A | A | B | - | A | A | - |
| Calcium Silicate | Ca2SiO ₄ | A | - | - | - | A | - | A | A | B | A | A | - | - | - | A | - |
| Calcium Sulfate (Gypsum) | CaSO ₄ | A | A | - | A | A | A | A | C | B/10% | A/10% | A | A | X | A | A | A |
| Calcium Sulfide | CaS | A | A | - | B | A | A | A | A/20% | B | B | A | A/120° | - | A | A | - |
| Calcium Sulfite | CaSO ₃ * 2H ₂ O | A | - | - | - | A | A | A | B/10% | B | A/10% | - | B/70° | - | B/70° | A | - |
| Calgon | (NaPO ₃) ₆ | A | - | - | A | - | A | - | - | X | A | - | A | - | - | A | - |
| Cane Juice | Sucrose, water | A | - | - | A | - | A | A | B | A | A | - | X | - | - | A | - |
| Cane Sugar Liquors | | A | A | B | A | A | A | B | A | A | A | - | A | - | A | A | - |
| Capryl Alcohol (Octanol) | CH ₃ (CH ₂) ₆ CH ₂ OH | A | C | - | B | A | - | B | A | A | A | A | - | - | - | A | - |
| Caprylic Acid (Octanoic Acid) | CH ₃ (CH ₂) ₆ COOH | C | - | - | - | A | - | - | A | - | A | A | - | - | A | A | - |
| Carbamate | H ₂ NCO ₂ R | C | C | - | C | A | A | A | - | - | - | - | - | - | - | A | - |
| Carbitol | CH ₃ CH ₂ OCH ₂ CH ₂ OCH ₂ CH ₂ OH | B | C | - | C | A | B | C | A | A | A | A | - | - | - | A | - |
| Carbolic Acid (see Phenol) | C ₆ H ₅ OH | X | C | X | C | A | A | A | B | A | B | A | C | X | A/150° | A | - |
| Carbon Dioxide (Carbonic Acid Gas) | CO ₂ | A | B | A | A | A | B | A | A | A | A | A | A | A | A | A | A |
| Carbon Disulfide (Carbon Bisulfide) | CS ₂ | X | X | C | X | A | X | A | A | B | A/90° | - | X | B | A | A | A |
| Carbon Monoxide | CO | C | C | A | A | A | A | C | A | A | A | A | A | B | A | A | - |
| Carbon Tetrachloride R10 (Tetrachloromethane) | CCL ₄ | C | X | X | X | A | X | A | X | C | B | A | X | B | A | A | A |
| Carbonated Beverages | CO ₂ /H ₂ O | B | B | A/50% | X | A | A | A | X | X | A | A | A | A | A | A | A |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Carbonic Acid (liquid) | H ₂ CO ₃ | B | - | C | A | A | A | A | A | X | B | A | A | A | A | A | A |
| Casein | a phosphoprotein | A | A | - | A | A | - | A | B | - | B | B | - | - | - | A | - |
| Catsup (Ketchup) | | A | A | - | C | A | A | A | B | X | A | A | A | - | - | A | - |
| Cellosolve (Glycol Ethers) | HOCH ₂ CH ₂ OR | C | C | X | C | A | C | B | A | - | A | A | A/100 ⁰ | A | A | A | A |
| Cellulose Acetate | C ₈ H ₁₂ O ₅ | B | - | - | B | A | - | C | B | B | A | A | C | - | A | A | - |
| Cellulube Hydraulic Fluids (Phosphate Esters) | | X | A | C | X | A | X | B | A | A | A | A | - | - | - | A | - |
| Chlorinated Lime - 35% Bleach | CA(ClO) ₂ | C | A | X | X | A | X | A | - | X | A | - | - | - | - | A | - |
| Chlorinated Water | | C | - | X | C | A | - | A | X | X | B | - | B | X | A | A | - |
| Chlorine - Dry Wet Anhydrous Liquid | CL ₂ | C | - | X | C | A | - | A | X | - | B | - | X | - | A | A | - |
| | Cl ₂ /H ₂ O | C | X | X | X | A | C | A | B | C | A | A | X | X | A | A | X |
| | Cl ₂ | X | - | - | X | A | C | A | X | X | X | A | - | A | A | - | |
| Chlorine Dioxide | ClO ₂ | X | C | - | X | A | X | B | B | - | X | B | X | - | A | A | - |
| Chlorine Trifluoride | ClF ₃ | X | X | - | X | A | X | B | A | - | A | - | X | - | - | - | - |
| Chloroacetic Acid (Monochloroacetic Acid) | ClCH ₂ COOH | X | B | X | C | A | - | C | X | X | X | A | A | X | A | A | A |
| Chloroacetone (Monochloroacetone) | ClCH ₂ COCH ₃ | X | A | - | C | A | C | C | X | B | B | B | X | - | - | A | - |
| Chlorobenzene (Monchlorobenzene) | C ₆ H ₅ Cl | X | X | X | X | A | C | A | X | B | B | B | X | A | A/150 ⁰ | A | A |
| Chlorobutadiene (Chloroprene) | C ₄ H ₅ CL | X | X | - | X | A | C | A | X | B | B | B | X | - | - | A | - |
| Chlorobromomethane | ClCH ₂ Br | X | - | - | X | A | X | A | X | B | B | - | X | - | - | A | - |
| Chloroform | CHCl ₃ | X | X | X | X | A | X | A | X | A | A | A | X | A | A | A | A |
| 1-Chloronaphthalene | C ₁₀ H ₇ Cl | X | X | - | X | A | X | C | X | B | B | A | X | - | - | A | - |

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| Chlorosulfonic Acid | HSO ₃ CL | X | X | X | X | A | A | X | B | B | B | A | X | - | X | A | X |
| o-Chlorophenol | C ₆ H ₅ ClO | X | X | - | X | A | - | B | B | B | B | B | - | B | A | A | A |
| Chlorothene (Chlorinated Solvents) | CH ₃ CCL ₃ | X | - | - | X | A | - | C | X | X | A | A | - | - | - | A | - |
| Chlorotrifluoroethylene | C ₂ H ₂ ClF | X | - | - | - | A | - | - | B | B | B | B | - | - | - | A | - |
| Chlorox | | C | A | X | B | A | B | A | - | X | A | B | B | - | A | A | - |
| Chocolate Syrup | Corn Syrup, water, sugar | A | - | - | A | A | A | - | - | X | A | - | A | - | - | A | - |
| Chromic Acid - to 25% Over 25% | H ₂ CrO H ₂ CrO ₄ | X X | A C | X X | X X | A A | A A | A A | B/10% X | B B | X X | B B | C C | X X | A/120% A/120% | A A | A A |
| Cider (Apple Juice) | Sucrose, water | A | B | B | A | A | A | A | B | X | A | A | - | - | - | A | - |
| Citric Acid | C ₆ H ₈ O ₇ * H ₂ O | B | A | A | A | A | A | A | B | X | A/30% | A | B | B | A | A | A |
| Citrus Pectin Liquor | | A | - | - | A | A | - | A | - | - | A | A | A | - | - | A | - |
| Cobalt Chloride | CoCl ₂ * 6H ₂ O | A | C | - | A | A | A | A | X | - | - | - | A | - | - | A | - |
| Coffee | Fatty oils, acids, cellulose, water | A | - | - | A | A | A | - | A | - | A | A | A | - | - | A | - |
| Coke Oven Gas | H ₂ (53%),CH ₄ (26%)N ₂ (11%),CO(7%)&hydrocarbons (3%) | C | - | - | C | A | B | A | - | - | - | - | - | - | A | A | - |
| Copper Acetate | Cu(C ₂ H ₃ O ₂) ₂ * CuO * 6H ₂ O | B | A | - | C | A | A | A | X | A/90% | B/10% | B | A | - | A | A | - |
| Copper Chloride | CuCl ₂ * 2H ₂ O | A | A | A | A | A | A | A | X | X | X | B | A | - | A | A | - |
| Copper Cyanide | CuCN | A | A | - | A | A | A | A | X | A | A/10% | A | A | - | A | A | A |
| Copper Fluoroborate | | B | - | - | A | - | A | A | X | X | X | B | - | - | - | A | - |
| Copper Nitrate Hexahydrate | Cu(NO ₃) ₂ * 6H ₂ O | A | A | - | A | A | A | A | X | X | A | B | A | A | A | A | A |
| Copper Sulfate (Blue Copperas) | CuSO ₄ * 5H ₂ O | A | A | A | A | A | A | A | X | X | A/10% | A | A | A | A | A | A |
| Copper Sulfide | CuS | A | - | - | - | A | - | A | - | - | - | - | - | - | - | A | - |
| Cream | | A | - | - | C | A | A | A | - | X | A | - | A | - | - | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Creosote, Wood-Tar | Mixture of phenols | A | X | X | B | A | B | A | B | B | A | - | X | X | - | A | - |
| Cresylic Acid (cresol) | C ₈ H ₁₀ O ₂ | C | X | - | X | A | B | A | B | C | A | B | X | X | A/150° | A | - |
| Crotonaldehyde | CH ₃ CHCHCHO | X | - | - | A | A | - | A | A | A | A | A | - | - | - | A | - |
| Cumeme (Isopropylbenzene) | C ₆ H ₅ CH(CH ₃) ₂ | X | X | - | X | A | - | A | B | B | B | B | - | - | - | A | - |
| Cyclohexane | C ₆ H ₁₂ | B | X | A | X | A | C | A | B | B | B | B | X | A | A | A | A |
| Cyclohexanol | C ₆ H ₁₁ OH | B | X | - | A | A | B | A | C | B | A | A | B | A | A/150° | A | A |
| Cyclohexanone | C ₆ H ₁₀ O | X | C | - | X | A | C | X | B | B | B | B | X | A | A | A | A |
| Cyclopentane | C ₅ H ₁₀ | B | X | - | A | A | - | A | B | B | B | B | - | - | - | A | - |
| Cymene (Isopropyltoluene) | C ₁₀ H ₁₄ | C | X | - | X | A | - | A | - | - | - | - | - | - | - | A | - |
| Decahdronaphthalene (Decalin) | C ₁₀ H ₁₈ | X | X | - | X | A | - | A | - | - | - | - | - | - | - | A | - |
| Decanal | CH ₃ (CH ₂) ₈ CHO | X | X | - | - | A | - | X | - | - | - | - | - | - | - | A | - |
| Decane | CH ₃ (CH ₂) ₈ CH ₃ | B | C | - | X | A | C | A | - | - | - | - | A/70% | - | A | A | - |
| Detergent Solutions | | A | A | B | A | A | A | A | B | - | A | - | A | A | - | A | A |
| Developing Fluids & Solutions | | A | C | X | A | A | B | A | - | X | A | A | - | - | - | A | - |
| Dextrose | C ₆ H ₁₂ O ₆ | B | A | B/140% | B | A | B | A | A | X | A | A | A | - | A | A | - |
| Dibenzyl Ether | (C ₆ H ₅ CH ₂) ₂ O | X | C | - | X | A | C | C | B | B | B | B | - | - | C | A | - |
| Dibenzyl Sebecate | C ₂₄ H ₃₀ O ₄ | X | C | A | X | A | C | B | - | - | - | - | - | - | - | A | - |
| Dibutyl Amine | (C ₄ H ₉) ₂ NH | C | C | X | - | X | A | C | X | - | A | A | A | X | B/70% | A | - |
| Dibutyl Phthalate (DBP) | C ₆ H ₄ (CO ₂ C ₄ H ₉) ₂ | X | A | A | A | X | A | A | B | A | A | A | B | X | - | X | A |
| Dibutyl Sebecate (DBS) | C ₁₈ H ₃₄ O ₄ | X | C | - | X | A | B | C | - | A | A | - | C | - | - | A | - |
| Dichloroacetic Acid | Cl ₂ CHCOOH | X | - | - | X | A | B | X | - | - | - | - | - | - | - | A | - |
| o-Dichlorobenzene | C ₆ H ₄ Cl ₂ | X | X | X | X | A | X | A | X | B | B | A | B | - | A/150% | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Dichlorobutane | C ₄ H ₈ Cl ₂ | X | - | - | - | A | - | A | X | B | B | - | - | - | - | A | - |
| Dichchloroethyl Ether | [ClCH ₂ CH ₂] ₂ O | X | - | - | - | A | - | - | B | - | - | - | - | - | - | A | - |
| Dichloro Isopropyl Ether | C ₆ H ₁₂ OCl ₂ | X | X | - | X | A | X | X | - | - | - | - | X | - | - | A | - |
| Dichlohexylamine | (C ₆ H ₁₁) ₂ NH | X | X | - | X | A | B | B | - | - | - | A | - | - | - | A | - |
| Diethanol Amine | (HOCH ₂ CH ₂) ₂ NH | B | - | - | A | A | - | - | - | A | A | A | A | - | - | A | - |
| Diethyl Amine | (CH ₃ CH ₂) ₂ NH | C | C | - | C | A | - | X | B | B | A | A | A | - | A | A | - |
| Diethyl Benzene | C ₆ H ₄ (C ₂ H ₅) ₂ | X | X | - | X | A | C | A | - | - | - | - | - | - | - | A | - |
| Diethyl Carbonate | (C ₂ H ₅ O) ₂ CO | X | - | - | X | A | - | - | - | A | - | - | - | - | - | A | - |
| Diethyl Ether (Ether) | (CH ³ CH ₂) ₂ O | B | X | C | C | A | A | X | B | A | A | A | X | A | A | A | A |
| Diethyl Phthalate (DEP) | C ₆ H ₄ (CO ₂ C ₂ H ₅) ₂ | X | - | - | - | - | - | C | A | A | A | A | - | - | - | - | - |
| Diethyl Sebecate | C ₁₄ H ₂₆ O ₄ | X | C | A | X | A | B | B | A | A | A | A | A/120° | - | A/120° | A | - |
| Diethylene Ether (Dioxane) | C ₄ H ₈ O ₂ | X | A | - | X | A | B | X | A | A | A | - | - | - | - | A | - |
| Diethylene Glycol (DEG) | HOCH ₂ CH ₂ OCH ₂ | A | A | A | A | A | A | A | A | A | A | A | A | - | - | A | - |
| Diethylene Triamine | (NH ₂ C ₂ H ₄) ₂ NH | B | - | - | - | A | - | - | A | A | A | A | - | - | - | A | - |
| Dilsobutyl Ketone | C ₄ H ₉ COC ₄ H ₉ | X | B | - | X | A | - | X | A | A | A | A | B | - | - | A | - |
| Diisobutylene | [HC=C(CH ₂) ₂] | B | - | - | C | A | C | C | - | - | - | - | A | - | A | A | A |
| Diisodecyl Adipate (DIDA) | C ₂₆ H ₅₀ O ₄ | X | - | - | - | A | - | C | - | - | - | - | - | - | - | A | - |
| Diisodecyl Phthalate (DIDP) | C ₂₈ H ₄₇ O ₄ | X | A | - | X | A | - | C | - | - | - | - | - | - | - | A | - |
| Diisooctyl Adipate (DIOA) | C ₂₂ H ₄₂ O ₄ | X | - | - | - | A | - | C | A | A | A | A | - | - | - | A | - |
| Diisooctyl Phthalate (DIOP) | C ₂₄ H ₃₉ O ₄ | X | - | - | - | A | - | C | - | - | - | - | - | - | - | A | - |

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| Diisooctyl Sebecate (DIOS) | C ₂₆ H ₄₆ O ₄ | - | B | - | - | A | - | A | - | - | - | - | - | - | - | A | - |
| Diisopropyl Amine | [(CH ₃) ₂ CH] ₂ NH | B | - | - | - | A | - | - | - | - | - | - | - | - | - | A | - |
| Diisopropyl Benzene | C ₆ H ₄ * [CH(CH ₃) ₂] ₂ | X | X | - | X | A | C | A | - | - | - | - | - | - | - | A | - |
| Diisopropyl Ketone | [(CH ₃) ₂ CH] ₂ CO | X | A | - | X | A | C | X | - | - | A | - | - | - | - | A | - |
| N, N-Dimethylaniline | C ₆ H ₅ N(CH ₃) ₂ | X | C | - | X | A | B | X | B | B | - | - | X | - | A | A | A |
| Dimethyl Ether | CH ₃ OCH ₃ | A | - | - | B | A | - | A | B | B | B | B | - | - | - | A | - |
| N,N-Dimethyl Formamide (DMF) | HCON(CH ₃) ₂ | C | B | C | X | A | A | X | A | - | A | A | A/120° | B | A/120° | A | A |
| Dimethyl Phthalate | C ₆ H ₄ (CO ₂ CH ₃) ₂ | X | C | B | X | A | A | C | - | - | - | - | - | - | A/70° | A | A |
| Dimethyl Sulfate | (CH ₃) ₂ SO ₄ | X | - | - | - | A | - | X | - | A | - | - | - | - | - | A | - |
| Dimethyl Sulfide | (CH ₃) ₂ S | X | - | - | - | A | - | - | A | A | A | A | - | - | - | A | - |
| Dinitrotoluene (DNT) | CH ₃ C ₆ H ₃ (NO ₂) ₂ | X | X | - | X | A | B | C | - | - | A | - | - | - | - | A | - |
| Diocetyl Phtahalate (DOP) | C ₂₄ H ₃₈ O ₄ | X | B | A | X | A | B | B | A | A | A | A | - | - | - | A | - |
| Diocetyl Sebecate | C ₂₆ H ₅₀ O ₄ | X | C | - | X | A | C | C | A | A | A | A | - | - | - | A | - |
| Dioxolanes (Dioxolans) | Glycol ethers | X | B | - | X | A | C | C | - | - | - | - | - | - | - | A | - |
| Dipentene (Limonene) | C ₁₀ H ₁₆ | C | X | - | X | A | C | A | A | A | A | A | - | - | - | A | - |
| Diphenyl Oxides (Phenyl Ether) | C ₆ H ₅ OC ₆ H ₅ | X | C | - | X | A | C | A | B | A | A | A | - | - | A | A | - |
| Dipropylamine | (CH ₃ CH ₂ CH ₂) ₂ NH | B | - | - | - | A | - | - | - | - | - | - | - | - | - | A | - |
| Dipropylene Glycol | (C ₃ H ₆ OH) ₂ O | A | - | - | - | A | A | A | - | - | - | - | A | - | A | A | - |
| Dipropyl Ketone (Butyrene) | (C ₃ H ₇) ₂ CO | X | - | - | - | A | - | - | - | - | - | - | - | - | - | A | - |
| Divinyl Benzene (DVB) | C ₆ H ₄ (CH=CH ₂) ₂ | X | - | - | - | A | - | A | - | - | - | - | - | - | - | A | - |
| Dodecyl Benzene (Alkane) | C ₆ H ₅ (CH ₂) ₁₁ CH ₃ | X | - | - | - | A | - | A | A | A | A | - | - | - | - | A | - |

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| Dow Corning (Silicones) | $[(CH_3)_2SiO]_2$ | A | - | - | A | A | A | A | A | - | A | - | - | - | - | A | - |
| Dowtherm (Biphenyl & Phenyl Ether) | $(C_6H_5)_2$ AND $(C_6H_5)_2O$ | X | X | - | X | A | X | A | A | B | A | A | - | - | - | A | - |
| Dry Cleaning Fluids | Chlorinated hydrocarbons | C | - | - | X | A | X | A | A | A | A | - | X | - | - | A | - |
| Dyes | | - | - | - | C | - | B | A | B | - | A | - | - | - | - | A | - |
| Epichlorohydrin | C_3H_5ClO | X | B | X | X | A | B | X | A | A | A | A | A | A | X | A | A |
| Epsom Salts (Magnesium Sulfate) | $MgSO_4 \cdot 7H_2O$ | A | A | - | A | A | A | A | A | - | A | B | A | - | A | A | - |
| Ethane | C_2H_6 | A | X | - | C | A | C | A | A | A | A | A | C | A | - | A | - |
| Ethanolamine (Aminoethanol) | $H_2NCH_2CH_2OH$ | B | B | - | C | A | A | X | B | A | A | - | X | X | C | A | A |
| Ethyl Acetate | $CH_3COOC_2H_5$ | X | B | C | X | A | A | X | A | A | A | A | C | A | A | A | - |
| Ethyl Acetoacetate (Acetoacetic Ester) | $CH_3COCH_2COOCH_2CH_3$ | X | C | - | X | A | C | X | A | A | A | A | - | - | A/70° | A | - |
| Ethyl Acrylate | $CH_2=CHCO_2C_2H_5$ | X | C | - | X | A | C | X | A | A | A | A | B | - | B/70° | A | - |
| Ethyl Aluminum Dichloride | $CH_3CH_2AlCl_2$ | X | - | - | - | A | - | B | - | - | - | - | - | - | - | A | - |
| Ethyl Amine (Monoethylamine) | $CH_3CH_2NH_2$ | X | A | - | C | A | - | X | B | B | A | - | - | - | - | A | - |
| Ethyl Benzene | $CH_3CH_2C_6H_5$ | X | X | - | X | A | X | A | B | B | B | A | X | A | A | A | - |
| Ethyl Benzoate | $C_6H_5CO_2C_2H_5$ | X | C | - | X | A | C | A | A | A | A | A | B | - | - | A | - |
| Ethyl Bromide (Bromoethane) | CH_3CH_2Br | X | B | - | B | A | X | - | X | A | A | - | - | - | - | A | - |
| Ethyl Butyl Acetate | $CH_3CO_2CH_2CH_2C_4H_9$ | X | - | - | - | A | - | X | - | - | - | - | - | - | - | A | - |
| Ethyl Butyl Ketone | $CH_3CH_2COC_4H_9$ | X | - | - | - | A | - | X | - | - | - | - | - | - | - | A | - |
| Ethyl Butyraldehyde | $C_6H_{12}O$ | X | - | - | - | A | - | X | - | - | - | - | - | - | - | A | - |
| Ethyl Butyrate | $CH_3CH_2CH_2CO_2C_2H_5$ | X | X | - | X | A | - | C | B | A | A | A | B | - | - | A | A |

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| Ethyl Caprylate | CH ₃ (CH ₂) ₅ CO ₂ C ₂ H ₅ | X | X | - | X | A | - | - | - | - | - | - | - | - | - | A | - |
| Ethyl Cellosolve | C ₂ H ₅ O(CH ₂) ₂ OH | C | B | - | C | A | B | X | - | - | - | - | - | - | - | A | - |
| Ethyl Cellulose (Ethocel) | | B | B | B | B | A | A | C | B | A | B | B | C | - | - | A | B |
| Ethyl Chloride (Chloroethane) | C ₂ H ₅ Cl | A | A | X | C | A | X | A | X | B | A | B | X | A | A | A | A |
| Ethyl Chlorocarbonate (Ethyl Chloroformate) | ClCO ₂ C ₂ H ₅ | - | - | - | C | A | A | A | - | - | - | - | - | - | - | A | - |
| Ethyl Cyanide (Propionitrile) | C ₂ H ₅ CN | X | A | - | B | A | - | X | - | - | - | - | - | - | - | A | - |
| Ethyl Formate | HCOOCH ₂ CH ₃ | X | C | - | B | A | B | A | B | A | B | B | - | - | - | A | - |
| Ethylexyl Acetate | CH ₃ CO ₂ CH ₂ CH(C ₂ H ₅)C ₄ H ₉ | X | - | - | - | A | - | X | - | - | - | - | - | - | - | A | - |
| Ethylhexyl Alcohol (Ethylhexanol) | C ₈ H ₁₇ OH | A | - | - | - | A | - | B | A | A | A | A | - | - | - | A | - |
| Ethyl Iodide | CH ₃ CH ₂ I | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A | - |
| Ethyl Isobutyrate | (CH ₃) ₂ | X | X | - | X | A | - | - | - | - | - | - | - | - | - | A | - |
| Ethyl Mercaptan (Ethanethiol) | CH ₃ CH ₂ SH | X | X | - | C | A | C | B | B | A | B | B | - | - | - | A | - |
| Ethyl Oxalate | C ₂ H ₅ O ₂ C CO ₂ C ₂ H ₅ | X | A | - | X | A | B | B | - | - | - | - | - | - | - | A | - |
| Ethyl Pentachlorobenzene | C ₂ H ₅ C ₆ Cl ₅ | X | - | - | X | A | X | A | X | - | - | - | X | - | - | A | - |
| Ethyl Propionate | CH ₃ CH ₂ COOCH ₂ CH ₃ | X | X | - | X | A | - | - | A | A | A | A | - | - | - | A | - |
| Ethyl Silicate | Si(OCH ₂ CH ₃) ₄ | A | A | - | A | A | B | A | B | A | A | A | - | - | - | A | - |
| Ethyl Sulfate | C ₂ H ₅ OSO ₂ OH | A | - | - | - | A | B | A | - | - | X | - | - | - | - | A | - |
| Ethylene (Ethene) | C ₂ H ₄ | B | C | - | A | A | C | A | A | A | A | - | - | - | - | A | - |
| Ethylene Chlorohydrin | ClCH ₂ CH ₂ OH | X | A | X | B | A | C | B | - | B | A | A | X | - | A/70° | A | - |
| Ethylene Diamine | (CH ₂) ₂ (NH ₂) ₂ | B | A | - | A | A | A | X | C | A | A | A | A | A | B | A | A |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Ethylene Dibromide (Ethylene Bromide) | Br(CH ₂)Br | X | C | - | X | A | - | B | X | X | B | B | X | - | A | A | - |
| Ethylene Glycol (Ethylene Alcohol (Glycol)) | Cl(CH ₂) ₂ Cl | A | A | A | A | A | A | A/70° | A | A | A | A | A/120° | A | A | A | A |
| Ethylene Glycol Monobutyl Ether (Butyl Cellosolve) | C ₄ H ₉ OCH ₂ CH ₂ OH | B | B | - | X | A | - | C | A | A | A | A | - | - | - | A | - |
| Ethylene Glycol Monobutyl Ether Acetate (Cellosolve Acetate) | C ₂ H ₅ O(CH ₂) ₂ O ₂ CCH ₃ | C | B | - | X | A | - | C | A | A | A | A | - | A | - | A | - |
| Ethylene Glycol Monomethyl Ether (Methyl Cellosolve) | CH ₃ O(CH ₂) ₂ OH | C | B | - | C | A | - | X | B | B | A | A | - | - | - | A | - |
| Ethylene Oxide | (CH ₂) ₂ O | X | X | A | X | A | A | C | A | B | A | A | C | - | A | A | X |
| Ethylene Trichloride (Trichloroethene) | ClCHCCl ₂ | X | X | - | X | A | X | A | X | A | A | A | X | - | - | A | - |
| Ethylidene Chloride | CH ₃ CHCl ₂ | X | X | - | X | A | - | - | X | B | A | B | - | - | - | A | - |
| Fatty Acids | C ₈ H ₂₀ +1COOH | B | X | B | C | A | B | A | A/90° | X | A | A | B | A | A | A | - |
| Ferric Chloride | FeCl ₃ | A | A | B | A | A | A | A | X | X | X | A | A | A | A | A | A |
| Ferric Hydroxide | FeHO ₂ | B | A | - | - | A | - | C | - | - | A | B | - | A | - | A | - |
| Ferric Nitrate | Fe(NO ₃) ₃ | A | A | - | A | A | A | A | X | X | B | A | A | A | A | A | A |
| Ferric Sulfate | Fe ₂ (SO ₄) ₃ | A | A | - | A | A | A | A | C | X | B | A | A | A | A | A | A |
| Ferrous Chloride | FeCl ₂ | A | A | X | A | A | A | A | X | X | B/20% | B | A | A | A | A | A |
| Ferrous Sulfate | FeSO ₄ | A | A | A | A | A | A | A | A/10% | C | B | A | A | A | A | A | A |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Fluoboric Acid (Fluoroboric Acid) | HBF ₄ | A | A | X | B | A | A | C | X | X | A/30% | - | A | A | A | A | A |
| Fluorine (Liquid) | F ₂ | X | C | X | C | A | X | B | A | - | A | - | X | A | A/70° | A | - |
| Fluorobenzene | FC ₆ H ₅ | X | X | - | X | A | C | A | - | - | - | - | X | A | - | A | - |
| Fluosilicic Acid (Sand Acid) | H ₂ SiF ₆ | B | B | - | A | A | A | A | X | X | A/212° | B | A | A | A | A | A |
| Formaldehyde (Formalin) | HCHO | B | A | C/40° | C | A | A | A | A | C | A/90% | A | A | A | A/120° | A | A |
| Formamide | HCONH ₂ | A | A | - | A | A | - | X | A | B | B | B | - | A | - | A | - |
| Formic Acid | HCOOH | C | B | C | B | A | A | C | X | X | C | A | A/70% | A | A | A | A |
| Freon 11 (Trichlorofluoromethane) | CCl ₃ F | C | X | A | C | A | C | B | B | A | A | - | B | A | A | A | A |
| Freon 12 (Dichlorofluoromethane) | Cl ₂ CF ₄ | B | B | B | B | A | X | B | A | A | A | - | - | A | A | A | - |
| Freon 13 (Chlorofluoromethane) | ClCF ₃ | A | A | C | A | A | X | A | A | A | A | A | - | A | - | A | - |
| Freon 13B1 (Bromotrifluoromethane) | BrCF ₃ | A | A | - | A | A | - | A | - | - | - | - | - | A | - | A | - |
| Freon 14 (Tetrafluoromethane) | CF ₄ | X | B | - | X | A | - | - | - | - | - | - | - | A | - | A | - |
| Freon 21 (Dichlorofluoromethane) | FCHCl ₂ | X | X | - | B | A | X | X | A | - | - | - | - | A | A | A | - |
| Freon 22 (Chlorofluoromethane) | HCClF ₂ | X | C | X | B | A | X | X | A | A | A | A | - | A | A | A | - |
| Freon 113 (Trichlorotetrafluoroethane) | Cl ₃ CCF ₃ | B | X | A/130° | A | A | X | B | B | - | A | - | - | A | A | A | - |
| Freon 114 (Dichlorotetrafluoroethane) | C ₂ Cl ₂ F ₄ | A | C | A | A | A | X | A | B | - | A | - | - | A | A | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Freon 114B2 (Dibromotetrafluoroethane) | C ₂ Br ₂ F ₄ | B | X | - | A | A | X | B | - | - | - | - | - | A | - | A | - |
| Freon 115 (Chloropentafluoroethane) | C ₂ ClF ₅ | A | A | - | A | A | X | B | A | - | - | - | - | A | - | A | - |
| Fruit Juices | Water, sucrose | A | A | B | A | A | A | A | A/10% | X | A | A | A | A | A | A | A |
| Fumaric Acid (Boletic Acid) | Hydrocarbons | C | - | - | B | A | A | A | - | - | - | - | - | A | - | A | - |
| Furan (Furfuran) | C ₄ H ₄ O | X | X | X | X | A | B | C | - | - | - | - | C | A | X | A | A |
| Furfuryl Alcohol | C ₅ H ₆ O ₂ | X | B | B | - | A | A | X | A | A | A | A | - | A | B/100° | A | - |
| Gallic Acid | C ₆ H ₂ (OH) ₃ COOH | B | B | X | C | A | B | A | A/20% | X | B | B | A/70° | A | A/70% | A | A |
| Gasoline (unleaded) | C ₄ to C ₁₂ hydrocarbons | X | X | - | X | A | X | A | A | A | A | A | C | A | A | A | A |
| Gasoline (Petrol) | Hydrocarbons | A | X | A | C | A | X | A | A | A | A | A | C | A | A | A | A |
| Gelatin | Water soluble proteins | A | A | B | A | A | A | B | A | A | A | - | A | B | A | A | - |
| Glauber's Salt (Sodium Sulfate Decahydrate) | Na ₂ SO ₄ * 10H ₂ O | A | B | B | A | A | - | A | - | - | - | - | - | - | - | A | - |
| Gluconic Acid | C ₆ H ₁₂ O ₇ | C | - | - | - | A | - | A | B | C | A/50% | A | - | - | - | A | - |
| Glucose (Corn Syrup) | C ₆ H ₁₂ O ₆ | A | A | B | A | A | A | A | A | A | A | - | A | A | A | A | - |
| Glue | | A | B | B | A | A | A | A | A | A | B | A | A | B | - | A | - |
| Glycerol (Glycerine) | C ₃ H ₈ O ₃ | A | A | A | A | A | A | A | A | B | A | A | A | A | A | A | A |
| Glycolic Acid | HOCH ₂ COOH | A | A | - | A | - | A | A | - | - | - | A | A | - | A | A | A |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Glycols | | A | A | A | A | A | A | A | B | A | B | A | A | A | A | A | A |
| Gold Monocyanide | AuCN | A | - | - | A | - | A | A | - | - | X | X | - | - | - | A | - |
| Grape Juice | Water, sucrose | C | - | - | X | A | A | A | - | X | A | - | A | - | A | A | - |
| Grease | | A | - | A | X | A | B | A | A | - | A | - | - | - | - | A | - |
| Green Sulfate Liquor | | B | A | X | B | A | A | A | B | C | A | B | A | - | - | A | - |
| Halowax | Chlorinated naphthalenes | X | X | X | - | - | X | A | X | - | - | - | - | - | - | - | - |
| Heptanal | CH ₃ (CH ₂) ₅ CHO | A | - | - | - | - | - | A | A | A | A | A | A | C | - | A | A |
| Heptane | C ₇ H ₁₆ | A | X | - | C | A | X | A | A | A | A | A | C/140° | A | A | A | A |
| Hexanal | CH ₃ (CH ₂) ₄ CHO | B | B | - | B | A | - | C | A | B | A | B | - | - | - | A | - |
| Hexalin (Cyclohexanol) | C ₆ H ₁₁ OH | B | C | - | A | A | - | A | - | - | - | - | - | - | - | A | - |
| n-Hexane | C ₆ H ₁₄ | A | X | A | B | A | B | A | A | A | A | A | C/140° | C | A | A | A |
| n-Hexane 1 (Hexylene) | H ₂ CCH(CH ₂) ₂ CH ₃ | A | X | - | B | A | X | A | - | - | - | - | - | - | - | A | - |
| Hexylene Glycol (Brake fluid) | C ₆ H ₁₂ (OH) ₂ | A | C | - | A | A | - | A | A | A | A | A | - | - | - | A | - |
| Honey | | - | - | - | A | A | A | - | A | A | A | - | A | - | - | A | - |
| Hydrazine (Diamine) | H ₂ NNH ₂ | C | A | X | C | A | A | X | A | X | A | A | X | B | X | A | - |
| Hydrobromic Acid | HBr | X | A | - | C | A | A | A | X | X | X | - | B | X | A | A | A |
| Hydrochloric Acid | | | | | | | | | | | | | | | | | |
| 10% | HCl | B | A | - | B | A | A | A | X | C | X | B | A | X | A | A | A |
| 20% | HCl | C | A | X | B | A | A | A | X | C | X | A | A | X | A | A | A |
| 37% (Conc.) | HCl | C | A | X | C | A | A | B | X | X | X | A | B | X | A | A | A |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Hydrocyanic Acid (Formonitrile) | HCN | B | A | X | C | A | A | A | A/10% | X | A | B | A | X | A | A | - |
| Hydrofluoric Acid (Conc.) Cold | HF 49% | X | B | X | X | A | X | B | X | X | X | B | X | X | A | A | A |
| Hydrogen Fluoride (Anhydrous) | HF | X | C | X | C | A | - | A | X | X | X | A | A | - | A | A | - |
| Hydrogen Peroxide 3% | H ₂ O ₂ | B | B | X | B | A | A | A | A | - | - | - | A | - | A/120° | A | X |
| 10% | H ₂ O ₂ | C | B | X | C | A | A | A | A | B | A | A | A | - | A/120° | A | X |
| 30% | H ₂ O ₂ | C | B | X | X | A | A | A | A | X | B | A | A | - | A/120° | A | X |
| 90% | H ₂ O ₂ | X | C | X | B | A | X | A | A | X | A | - | - | - | A/120° | A | X |
| Hydrogen Sulfide (Wet) | H ₂ S | X | A | A | C | A | A | X | A/90% | X | A/167° | A | A | C | A | A | A |
| Hydroquinone | C ₆ H ₄ (OH) ₂ | C | - | - | X | A | A | C | A/90% | B | A/10% | B | - | - | A | A | - |
| Hydroxyacetic Acid - 10% | HOCH ₂ COOH | X | - | - | X | A | A | - | B | - | B | - | - | - | - | A | - |
| Hypochlorous Acid | HCIO | X | B | - | X | A | A | A | X | X | X | A | A | - | A | A | - |
| Ink | | A | - | - | A | A | A | A | C | X | A | A | B | - | A | A | - |
| Iodine | I ₂ | B | B | B | B | A | A | A | A | X | X | A | A | - | A/150% | A | X |
| Iodoform | CHI ₃ | - | A | - | - | A | B | - | A | A | A | A | - | - | A | A | - |
| Isoamyl Acetate | CH ₃ CO ₂ CH ₂ CH ₂ CH (CH ₃) ² | X | B | - | X | A | - | X | A | A | A | A | - | - | - | A | - |
| Isoamyl Butyrate | C ₉ H ₁₈ O ₂ | X | - | - | - | A | - | X | A | A | A | A | - | - | - | A | - |
| Isoamyl Chloride | (CH ₃) ₂ CHCH ₂ CH ₂ Cl | X | X | - | X | A | - | A | X | - | - | - | - | - | - | A | - |
| Isobutyl Acetate | CH ₃ CO ₂ CH ₂ CH(CH ₃) | X | C | - | X | A | - | X | A | A | A | A | - | - | - | A | - |
| Isobutyl Amine | (CH ₃) ₂ CHCOOH | X | - | - | - | A | - | X | - | - | - | - | - | - | - | A | - |
| Isobutyl Chloride | (CH ₃) ₂ CHCH ₂ Cl | X | - | - | - | A | - | B | X | B | B | B | - | - | - | A | - |

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| Isobutyric Acid | (CH ₃) ₂ CHCOOH | X | A | - | B | A | - | - | A | - | - | A | - | - | - | A | - |
| Isododecane | (CH ₃) ₂ CH(CH ₂) ₈ CH ₃ | B | X | - | A | A | - | A | B | B | B | - | - | - | - | A | - |
| Isooctane (Trimethylpentane) | C ₈ H ₁₈ | A | X | A | B | A | C | A | A | A | A | A | A | - | A | A | A |
| Isopentane | (CH ₃) ₂ CHCH ₂ CH ₃ | A | - | - | - | A | - | A | - | - | - | A | - | - | - | A | - |
| Isophorone | C ₉ H ₁₄ O | X | C | - | X | A | B | X | A | A | A | - | - | - | - | A | - |
| Isopropyl Acetate | CH ₃ COOCH (CH ₃) ₂ | X | B | - | X | A | B | X | A | A | A | A | B | - | - | A | - |
| Isopropyl Amine | C ₃ H ₇ NH ₂ | X | - | - | - | A | - | X | - | A | A | - | - | - | - | A | - |
| Isopropyl Chloride | (CH ₃) ₂ CHCl | X | X | - | X | A | C | B | X | A | A | A | X | - | - | A | - |
| Isopropyl Ether | (CH ₃) ₂ CHOCH | C | X | - | C | A | B | C | B | - | A | - | X | - | A/70% | A | - |
| Jet Fuels (JP1 to JP6) (ASTM-A, A1 & B) | | A | X | X | C | A | X | A | A | A | A | A | X | A | A | A | A |
| Kerosine (Kerosene) | Hydrocarbons | A | X | A | C | A | X | A | A | A | A | A | X | A | A | A | A |
| Lacquers | | X | X | X | X | A | C | X | A | B | A | A | - | B | - | A | - |
| Lacquer Solvents | | X | X | C | X | A | C | X | A | B | A | A | C | B | X | A | - |
| Lactic Acid | CH ₃ CHOH COOH | B | A | X | B | A | A | A | A | X | A/70% | A | A | C | A | A | A |
| Lactol (Aliphatic Naptha Solvent) | CH ₃ CHOH CO ₃ C ₁₀ H ₇ | C | - | - | X | A | - | A | A | A | A | A | - | - | - | A | - |
| Latex | Rubber emulsion | A | A | A | A | A | A | A | A | - | A | - | A | B | - | A | - |
| Lead Acetate (Sugar of Lead) | Pb(CH ₃ CO ₂) ₂ | B | A | - | A | A | A | X | X | - | B | B | A | - | A | A | A |
| Lead Chloride | PbCl ₂ | - | - | - | B | A | - | - | X | - | B | B | A | - | A | A | - |
| Lead Nitrate | Pb(NO ₃) ₂ | B | A | - | A | A | - | A | X | B | B | A | A | A | A | A | - |
| Lead Sulfamate | | B | - | - | A | A | A | A | - | - | - | B | A | - | - | A | - |

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| Ligroin (Ligroine (Benzene)) | Petroleum fraction | A | X | - | B | A | B | A | - | A | A | - | X | - | - | A | - |
| Lignin Liquor | Blend of natural aromatic oils | A | - | - | A | A | - | A | - | - | A | - | - | - | - | A | - |
| Lime Bleach | | A | A | - | C | A | A | A | X | - | - | - | B | - | - | A | - |
| Lime Slurries | | B | - | C | A | A | B | B | B | - | B | - | - | - | - | A | - |
| Lime, Soda (Slaked lime & soda ash) | CaO | B | A | - | B | A | A | B | - | - | - | - | - | - | - | A | - |
| Lime Sulfur | CaS + CaSO ₄ | A | A | - | A | A | B | A | X | - | A | - | A | - | - | A | - |
| Limonene | C ₁₀ H ₁₆ | C | X | - | X | A | - | A | - | - | - | - | - | - | - | A | - |
| Linoleic Acid | C ₁₈ H ₃₂ O ₂ | B | X | - | X | A | B | B | A | - | A | A | A | - | A | A | - |
| Lindol (Tritolyl Phosphate) | C ₂₁ H ₂₁ O ₄ P ₄ | X | - | - | C | A | A | B | - | - | - | - | - | - | - | A | - |
| Lithum Bromide | LiBrH ₂ O | A | - | - | X | A | - | A | - | A | - | - | - | A | A | A | A |
| Lye (Potassium Hydroxide) | KOH | C | A | X | B | A | A | B | - | - | A | - | A | X | A/150° | A | A |
| Magnesium Carbonate | MgCO ₃ | A | C | A | A | A | A | A | A | B | B | B | A | A | A | A | - |
| Magnesium Chloride | MgCO ₂ O | A | A | A | A | A | A | A | A/20% | B/30% | B/40% | A | A | B | A | A | A |
| Magnesium Hydroxide (Milk of Magnesia) | Mg(OH) ₂ | B | A | C | B | A | A | A | A/10% | A | A | A | A | A | A | A | A |
| Magnesium Nitrate | Mg(NO ₃) ₂ * 6H ₂ O | A | A | - | A | A | A | A | B/50% | B | A | B | A | - | A | A | A |
| Magnesium Oxide | MgO | A | - | - | A | A | A | B | A/10% | A | A | A | - | - | - | A | - |
| Magnesium Sulfate (Epsom Salts) | MgSO ₄ * 7H ₂ O | A | A | B | A | A | A | A | A/70% | A | A/40% | A | A | A | A | A | A |
| Maleic Acid | (CHCOOH) ₂ | X | X | - | A | A | A | A | A/20% | B/60% | B | A | A | - | A | A | - |
| Maleix Anydride | C ₄ H ₂ O ₃ | - | X | - | - | A | - | A | A/20% | B | A | A | - | - | - | A | - |
| Malic Acid (Apple acid) | C ₄ H ₆ O ₅ | B | X | - | C | A | A | A | B | - | A | B | - | - | - | A | - |
| Maple Sugar Liquors (Sucrose) | Water, sucrose | A | A | - | A | A | B | A | - | - | A | - | - | - | - | A | - |

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|-------------------------------------|---|-------------------|---------------|--------------|---------------|------|------------|-------------|------------------|----------------|--------------------------|-----------|---------------------|------------------|--------------|------|-------|
| | | BUNA N - NBR | NORDEL - EPDM | HYTREL - TPE | NEOPRENE - CR | PTFE | SANTOPRENE | VITON - FPM | ALUMINIUM - T356 | CAST IRON - FC | STAINLESS STEEL - 316 SS | HASTELLOY | POLYPROPYLENE - PPG | DELIRIN (ACETAL) | KYNAR - PVDF | PTFE | RYTON |
| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Mayonnaise | Water, fats, oils | A | - | - | A | A | A | - | X | X | A | A | A | - | - | A | - |
| Mercuric Chloride | HgCl ₂ | A | A | - | B | A | A | A | X | X | X | B | A | B | A | A | - |
| Mercuric Cyanide | Hg(CN) ₂ | B | A | - | B | A | A | A | X | B | B | B | A | - | A | A | - |
| Mercurous Nitrate | Hg ₂ (NO ₃) ₂ * 2H ₂ O | B | A | - | B | A | - | A | X | B | B/212° | B | A | - | A | A | - |
| Mercury | Hg | A | A | A | A | A | A | A | X | A | A | A | A | C | A | A | - |
| Mesityl Oxide | (CH ₃) ₂ C = CHCOCH ₃ | X | B | - | X | A | C | X | A | A | A | A | - | - | - | A | - |
| Methane | CH ₄ | A | X | B | B | A | X | A | A | A | A | A | B | A | A | A | - |
| Methyl Acetate | | X | C | C | C | A | B | X | A | A | A | A | C | B | - | A | - |
| Methyl Acetoacetate | CH ₃ COCH ₂ COOCH ₃ | X | - | - | - | A | - | X | - | A | A | A | - | - | - | A | - |
| Methyl Acrylate | CH ₂ CHCO ₂ CH ₃ | - | C | - | C | A | B | X | - | A | A | - | - | - | A/70° | A | - |
| Methyl Acrylic Acid (Crotonic Acid) | CH ₃ (CH) ₂ COOH | - | C | - | C | A | - | X | - | - | - | - | - | - | - | A | - |
| Methyl Amine (Monomethylamine) | CH ₃ NH ₂ | B | A | - | A | A | B | A/90% | B | B | A | B | X | - | C | A | - |
| Methyl Amyl Acetate | C ₈ H ₁₆ O ₂ | A | - | - | - | A | - | X | A | A | A | A | - | - | - | A | - |
| Methyl Aniline | C ₆ H ₅ NH(CH ₃) | A | A | - | A | A | - | - | - | - | - | - | - | - | - | A | - |
| Methyl Bromide (Bromo Methane) | CH ₃ Br | C | A | X | X | A | X | A | X | A | A | B | X | - | A | A | - |
| Methyl Butyl Ketone (2-hexanone) | CH ₃ COC ₄ H ₉ | X | B | - | X | A | C | X | - | - | A | - | X | - | - | A | - |
| Methyl Butyrate | CH ₃ (CH ₂) ₂ CO ₂ CH ₃ | X | X | - | X | A | - | - | A | A | A | A | - | - | - | A | - |
| Methyl Cellosolve | CH ₃ OCH ₂ CH ₂ O | X | - | - | X | A | A/70° | X | A | - | - | - | A | - | A | A | - |
| Methyl Chloride | CH ₃ Cl | X | C | X | X | A | X | B | X | A | A | A | X | B | A | A | A |
| Methyl Cyclopentane | C ₆ H ₁₂ | B | X | - | X | A | C | A | - | - | A | - | - | - | - | A | - |
| Methyl Dichloride | CH ₂ Cl ₂ | X | - | - | X | - | X | A | X | - | - | - | X | - | - | A | - |

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| | | BUNA N - NBR | NORDEL - EPDM | HYTREL - TPE | NEOPRENE - CR | PTFE | SANTOPRENE | VITON - FPM | ALUMINUM - T356 | CAST IRON - FC | STAINLESS STEEL - 316 SS | HASTELLOY | POLYPROPYLENE - PPG | DELTRIN (ACETAL) | KYNAR - PVDF | PTFE | RYTON | |
| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | | |
| Methyl Ethyl Ketone (Butanone) | CH ₃ CO * CH ₂ CH ₃ | X | A | C | X | A | A | X | A | A | A | A | X | B | X | A | A | |
| Methyl Formate | HCOOCH ₃ | X | C | - | B | A | B | X | A | A | A | - | - | - | - | A | - | |
| Methyl Hexane | C ₇ H ₁₆ | A | X | - | A | A | - | A | - | - | - | - | - | - | - | A | - | |
| Methyl Iodide | CH ₃ I | X | A | - | X | A | A/70% | - | X | A | A | A | - | - | - | A | - | |
| Methyl Isobutyl Ketone (Hexone) | CH ₃ COCH ₂ CH (CH ₃) ₂ | X | B | X | X | A | C | X | A | B | B | A | C/70% | A | A/70% | A | A | |
| Methyl Isopropyl Ketone | CH ₃ COCH(CH ₃) ₂ | X | C | X | X | A | C | X | - | - | A | - | C | - | A/70% | A | - | |
| Methyl Methacrylate | CH ₂ C(CH ₃) CO ₂ CH ₃ | X | X | - | X | A | B | C | B | - | A | - | A | - | A/70% | A | - | |
| Methyl Oleate | C ₁₉ H ₃₆ O ₂ | X | C | - | X | A | C | B | - | - | - | - | - | - | - | A | - | |
| Methyl Propyl Ketone | CH ₃ CH ₂ CH ₂ COCH ₃ | X | B | - | X | A | - | X | - | - | - | - | - | - | - | A | - | |
| Methacrylic Acid | CH ₃ CHCHCO ₂ H | - | - | - | B | A | A | B | - | - | - | - | - | - | - | A | - | |
| Methylamine | CH ₃ NH ₂ | B | A | - | A | A | A | A/90% | B | B | A | B | A | - | - | A | - | |
| Methyl Bromide | CH ₂ Br ₂ | X | - | - | X | A | - | B | X | A | A | A | - | - | A | A | - | |
| Methylene Chloride | CH ₂ Cl ₂ | X | X | X | X | A | X | B | X | B | A/90% | A | X | - | B/100° | A | A | |
| Milk | | B | A | B | A | A | A | A | A | X | A | A | A | A | A | A | A | - |
| Mine Water | | A | - | - | - | A | B | - | B | - | B | A | - | - | - | A | - | |
| Mixed Acids (Sulfuric & Nitric) | H ₂ SO ₄ , HNO ₃ | X | B | - | X | A | - | A | X | X | B | B | X | A | A | A | A | - |
| Molasses | | A | A | B | A | A | A | A | A | A | A | A | A | - | A | A | A | A |
| Monochlorobenzene | C ₆ H ₅ Cl | X | - | C | X | A | X | A | X | A | A | - | X | B | A/100% | A | A | |
| N-Methyl Aniline | C ₆ H ₅ NHCH ₃ | X | - | - | X | A | - | C | - | - | - | - | C | A | - | A | - | |
| Monoethanolamine | NH ₂ C ₂ H ₄ OH | B | - | - | C | A | A | C | B | A | A | - | X | - | X | A | A | |
| Monomethylether | | A | - | - | B | A | - | A | - | - | - | A | - | X | - | A | - | |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Monovinyl Acetylene | | A | - | - | B | A | - | A | - | - | - | | - | - | - | A | - |
| Mustard | | C | - | B | A | A | A | X | B | X | A | A | A | A | - | A | - |
| Naphtha (Petroleum spirits) (Thinner) | Petroleum fractions | A | X | A | X | A | X | A | A | B | A | A | X | A | A | A | A |
| Naphtha Coal Tar (Benzol) | Hydrocarbons | X | X | - | X | A | - | A | A | B | A | A | - | - | - | A | - |
| Naphthalene (Tar Camphor) | C ₁₀ H ₈ | X | X | C | X | A | C | A | B | A | A | A | A | A | A | A | A |
| Naphthoic Acid | C ₁₁ H ₈ O ₂ | B | X | - | - | A | - | A | B | B | A | B | - | - | - | A | - |
| Neohexane (2, 2-dimethylbuane) | C ₆ H ₁₄ | A | - | - | - | A | - | A | - | - | - | - | - | - | - | A | - |
| Neosol | | A | B | - | A | A | - | C | B | B | A | A | - | - | - | A | - |
| Neville Acid | | C | C | - | C | A | A | B | - | - | - | - | - | - | - | A | - |
| Nickel Acetate | Ni(CH ₃ CO ₂) ₂ | B | A | - | B | A | A | X | B/10% | - | A | - | A | - | A | A | - |
| Nickel Chloride | NiCl ₂ | A | A | X | A | A | A | A | X | X | B | A | A | B | A | A | A |
| Nickel Nitrate | Ni(NO ₃) ₂ * 6H ₂ O | A | A | - | A | A | - | A | X | - | A | B | A | - | A | A | A |
| Nickel Sulfate | NiSO ₄ | A | A | - | A | A | A | A | X | X | A/40% | B | A | A | A | A | A |
| Nitrana (Ammonia Fertilizer) | | B | - | - | B | A | - | C | - | - | A | - | - | - | - | A | - |
| Nitric Acid | | | | | | | | | | | | | | | | | |
| 10% | HNO ₃ | X | B | C | B | A | A | A | A | X | A | A | A | - | A | A | X |
| 25% | HNO ₃ | X | B | X | C | A | B | A | X | X | A | A | A | - | A | A | X |
| 35% | HNO ₃ | X | C | X | X | A | B | A | X | X | A | A | B | - | A | A | X |
| 50% | HNO ₃ | X | X | X | X | A | X | A | X | X | A | X | C | - | A | A | X |
| 70% | HNO ₃ | X | X | X | X | A | X | A | - | X | A | X | X | - | A | A | X |
| Concentrated | HNO ₃ | X | X | X | X | A | X | B | A | X | A | A | X | - | A/120° | A | X |
| Red Fuming | | X | X | X | X | A | X | B | A | X | A | B | X | - | C | A | - |
| Nitrobenzene | C ₆ H ₅ NO ₂ | X | X | X | X | A | A | B | A | A | A | B | B | B | A/70° | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Nitroethane | C ₂ H ₅ NO ₂ | X | C | - | C | A | A | X | A | A | A | A | C | - | A/70% | A | - |
| Nitrogen Tetroxide | N ₂ O ₄ | X | X | B/50% | X | A | - | C | A | B | A | A | X | - | C | A | - |
| Nitromethane | CH ₃ NO ₂ | X | C | X | C | A | A | X | A | A | A | A | C | - | A/120° | A | A |
| 1-Nitropropane | CH ₃ (C ₂ H ₅) ₂ NO ₂ | X | A | - | C | A | - | X | A | A | A | A | - | - | - | A | - |
| Octadecane | CH ₃ (CH ₂) ₁₆ CH ₃ | A | X | - | B | A | B | A | - | - | - | - | - | - | - | A | - |
| n-Octane | C ₈ H ₁₈ | A | X | - | - | A | B/70% | A | - | - | - | - | X | - | A | A | - |
| Octyl Acetate | CH ₃ COO (CH ₂) ⁷ CH ₃ | X | - | - | - | A | - | X | A | - | A | - | - | - | - | A | - |
| Octachlorotoulene | C ₇ Cl ₈ | X | - | - | X | A | - | A | X | - | - | A | X | - | - | A | - |
| Oils (A thru D) | | | | | | | | | | | | | | | | | |
| Almond Oil (artificial) | | X | B | - | X | A | - | X | - | - | - | - | - | - | - | A | - |
| Amyl Acetate (Banana Oil) | | X | A | C | X | A | B | X | A | B | A | B | B | X | A/120° | A | A |
| Animal Fats & Oil | | A | B | B | C | A | - | A | A | X | A | A | - | - | A | A | - |
| Bunker Oil (fuel #5, #6, #7) | | A | X | - | B | A | B | A | A | A | A | A | - | - | - | A | - |
| Castor Oil | | A | B | B | A | A | B | A | A | B | A | A | - | - | - | A | - |
| Cinnamon Oil | | - | - | - | C | A | C | - | - | X | A | - | - | - | - | A | - |
| Citric Oils | | C | B | - | X | A | C | A | - | X | A | - | A | - | - | A | - |
| Clove Oil (eugenol) | | - | - | - | C | A | C | - | - | X | A | - | - | - | - | A | - |
| Coconut Oil (Coconut Butter) | | B | A | - | B | A | B | A | B | A | A | - | - | - | - | A | - |
| Cod Liver Oil (Fish Oil) | | B | A | - | B | A | B | A | A | X | A | - | - | - | - | A | - |
| Corn Oil (Maize Oil) | | A | C | A | C | A | C | A | B | C | B | - | A | - | A | A | - |
| Cotton Seed Oil | | A | A | A | C | A | B | A | A | C | A | - | A | B | A | A | A |
| Creosote, Coal-Tar (Tar Oil) | | A | X | X | C | A | B | A | B | B | B | B | X | X | - | A | - |
| Cutting Oil (water soluble) | | C | - | - | X | A | - | A | A | A | A | A | - | - | - | A | - |
| Cutting Oil (Sulfur Base) | | A | - | - | C | A | - | - | A | A | A | A | - | - | - | A | - |
| Diesel Oil (Fuel ASTM #2) | | A | X | A | C | A | C | A | A | A | A | A | B | - | A | A | - |
| Diester Synthetic Oils | | B | X | - | X | A | - | A | A | A | A | A | - | - | - | A | - |
| Dispersing Oil #10 | | X | X | - | X | A | - | C | A | A | A | A | - | - | - | A | - |

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| Oils (E thru H) | | | | | | | | | | | | | | | | | |
| | Ethylene Dichloride (Dutch Oil) | X | X | X | X | A | X | B | X | B | B | B | X | B | A | A | A |
| | Fish Oil | A | - | - | - | A | B | A | - | - | - | A | - | B | - | A | A |
| | Fluorolube (Flourocarbon Oils) | C | A | - | A | A | X | B | A | A | A | A | X | - | - | A | - |
| | Fuel Oils (ASTM #1 thru #9) | A | X | B | C | A | C | A | A | A | A | C | C | A | A | A | A |
| | Furfual (Ant Oil) | X | B | - | B | A | C | C | A | B | A/20% | B | X | B | B/120° | A | A |
| | Fusel Oil (Grain Oil) | A | A | - | A | A | - | A | - | - | - | - | - | - | - | A | - |
| | Ginger Oil | - | - | - | A | A | C | A | - | X | A | - | - | - | - | A | - |
| | Grapefruit Oil | X | - | - | X | A | - | - | - | X | A | - | - | - | - | A | - |
| | Halowax Oil | X | X | - | X | A | X | A | X | - | - | - | - | - | - | A | - |
| | Hydraulic Oil (Petroleum Base) | A | X | X | B | A | X | A | A | A | A | A | X | C | - | A | - |
| Oils (L thru N) | | | | | | | | | | | | | | | | | |
| | Lard (lard Oil) | A | X | B | C | A | B | A | A | A | B | A | A | B | A | A | A |
| | Lavender Oil | B | X | - | X | A | B | B | - | - | - | - | - | - | - | A | - |
| | Lemon Oil (Cedro Oil) | - | - | - | C | A | C | A | A | - | A | - | - | - | - | A | - |
| | Linseed Oil (Flaxseed Oil) | A | C | B | A | A | B | A | A | A | A | A | A | A | A | A | A |
| | Lubricating Oils (petroleum) | A | X | A | B/150° | A | - | A | A | A | A | A | A | A | A | A | A |
| | Methyl Salicylate (Betula Oil) | X | C | - | X | A | B | B | A | A | - | - | - | - | - | A | - |
| | Mineral Oil (petroleum) | A | X | A | B | A | C | A | A | A | A | A | B | A | A | A | A |
| | Neatsfoot Oil | A | C | - | - | A | B | A | - | - | A | - | - | - | - | A | - |
| Oils (O thru Q) | | | | | | | | | | | | | | | | | |
| | Oleic Acid (Red Oil) | C | C | A | X | A | - | B | A | C | B | A | B | B | A | A | A |
| | Olive Oil | A | C | - | C | A | B | A | A | A | A | A | A | A | A | A | A |
| | Palm Oil | A | - | - | C | A | B | A | - | A | A | A | - | - | - | A | - |
| | Peanut Oil | A | X | - | B | A | B | A | - | A | A | A | A/70° | - | A | A | - |
| | Peppermint Oil | X | - | - | X | A | C | A | - | - | A | - | - | - | - | A | - |
| | Petroleum (Crude Oil) (Sour) | B | X | C | C | A | X | A | B | B | A | A | X | A | A | A | - |
| Oils (R thru S) | | | | | | | | | | | | | | | | | |
| | Rape-Seed Oil (Colza Oil) | B | A | - | C | A | B | A | - | A | A | A | - | - | - | A | - |
| | Rose Oil | - | - | - | C | A | A | A | - | - | A | - | - | - | - | A | - |
| | Rosin Oil (Rosinol) | A | - | - | A | A | - | A | - | - | - | - | - | - | - | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | |
| Oils (R thru S) continued | | | | | | | | | | | | | | | | |
| Sesame Seed Oil | | A | - | - | C | A | B | A | - | A | A | - | - | - | A | - |
| Silicone Oils (Versilube, etc.) | | A | A | A | C | A | C | A | B | B | A | A | A | - | A | A |
| Soybean Oil | | A | C | A | A | A | B | A | A | A | A | B | B | - | A | A |
| Sperm Oil (Whale Oil) | | A | - | - | X | A | B | A | - | A | A | A | - | - | - | A |
| Oils (T thru Z) | | | | | | | | | | | | | | | | |
| Transformer Oil (Petroleum) | | B | X | - | C | A | X | A | A | A | A | B | C | - | A | - |
| Tung Oil (Wood Oil) | | A | X | B | C | A | B | A | A | - | A | A | - | - | A | - |
| Vegetable Oils | | B | A | A | C | A | A | A | A | B | A | X | - | - | A | A |
| Walnut Oil | | A | - | - | B | A | - | A | - | - | - | - | - | - | A | - |
| White Oil (Mineral) (Petroleum) | | A | X | - | C | A | C | A | - | - | A | A | - | - | - | A |
| Oleum (Fuming sulfuric acid) | H ₂ SO ₄ /SO ₃ | C | - | X | X | A | X | A | X | X | A | - | X | - | X | A |
| Olein (Triolene) | C ₅₇ H ₁₀₄ O ₆ | B | - | - | C | A | X | - | - | - | - | - | - | - | - | A |
| 0-Dicholobenzene | C ₆ H ₄ Cl ₂ | X | - | - | X | A | X | A | X | A | A | - | X | - | - | A |
| Oxalic Acid | (COOH) ₂ | C | A | X | B | A | A | C | B | X | B/90% | B | A | B | A/120° | A |
| Ozone | O ₃ | X | A | C | B | A | X | A | A/10% | A/10% | A | A | X | A | A | A |
| Paints & Solvents | | X | - | - | X | A | - | - | A | - | A | A | - | A | - | A |
| Paint Thinner, DUCO | Hydrocarbons | A | X | - | C | A | C | B | A | - | A | A | X | A | - | A |
| Palmitic Acid | CH ₃ (CH ₂) ₄ COOH | B | B | A | C | A | A | B | B | B | A | - | A | - | A | A |
| Paraffins (Paraffin Oil) | Hydrocarbons | A | - | - | - | A | A | - | A | - | A | A | A | A | - | A |
| Paraformaldehyde | (CH ₂ O) ₈ | B | - | - | B | A | - | C | A/10% | A | A | A | - | A | - | A |
| Paraldehyde | C ₆ H ₁₂ O ₃ | C | A | - | B | A | - | X | A | A | A | A | - | A | - | A |
| Pentachlorethane (Pentalin) | Cl ₂ CHCCl ₃ | X | - | - | X | A | - | A | X | A | A | A | - | A | - | A |
| Pentachlorophenol (PCP) | C ₆ Cl ₅ OH | X | X | - | X | A | - | A | A | A | A | A | - | A | - | A |
| Pentane (Amyl Hydride) | C ₅ H ₁₂ | A | X | B | B | A | B | A | A | B | B | A | - | - | - | A |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Perchloric Acid | HClO ₄ | X | B | X | B | A/70% | X | A | X | X | B | - | - | C | A | A | A |
| Perchloroethylene (Tetrachloroethylene) | C ₂ Cl ₄ | X | X | X | X | A | X | A | X | B | A/90% | B | X | A | A | A | A |
| Phenethyl Alcohol (Benzyl Carbinol) | C ₆ H ₅ (CH ₂)OH | X | B | - | X | A | - | X | A | A | A | A | - | - | - | A | - |
| Phenol (Carbolic Acid) | C ₆ H ₅ OH | X | C | X | C | A | C | A | B | A | B | A | C | X | A/100% | A | A |
| Phenol Sulfonic Acid | C ₆ H ₄ (OH)SO ₃ H | X | - | - | - | A | - | X | B | B | B | - | - | - | - | A | - |
| Phenyl Acetate | CH ₃ COOC ₆ H ₅ | X | B | - | X | A | - | X | - | - | - | - | - | - | - | A | - |
| Phenylbenzene | C ₆ H ₅ | X | - | - | X | A | C | A | - | - | - | - | - | - | - | A | - |
| Phenyl Ethyl Ether (Phenetole) | C ₆ H ₅ OC ₂ H ₅ | X | X | - | X | A | C | C | - | - | - | - | - | - | - | A | - |
| Phenyl Hydrazine | C ₆ H ₅ NHNH ₂ | X | X | - | X | A | B | A | A | X | - | - | X | - | A/120° | A | - |
| Phorone (Diisopropylidene Acetone) | C ₉ H ₁₄ O | X | C | - | X | A | B | A | - | - | - | - | - | - | - | A | - |
| Phosphoric Acid | | | | | | | | | | | | | | | | | |
| 10% | H ₃ PO ₄ | A | A | - | B | A | A | A | X | X | A | - | A/120° | - | A | A | A |
| 20% | H ₃ PO ₄ | C | A | - | B | A | A | A | X | X | A/212° | A | A/120° | - | A | A | A |
| 50% | H ₃ PO ₄ | X | A | - | B | A | A | A | X | X | A | C | A/120° | - | A | A | A |
| Concentrated | H ₃ PO ₄ | X | B | X | B | A | C | A | X | X | A/212° | - | A/120° | - | A | A | A |
| Phosphorus Oxychloride | POCl ₃ | - | - | - | X | A | - | - | B | B | B | B | - | - | - | A | - |
| Phosphorus Trichloride | PCl ₃ | X | A | - | X | A | A | A | C | B | A | A | X | - | A | A | A |
| Photographic Developer | | A | - | X | A | - | A | A | C | X | A | A | A | C | A | A | A |
| Pickling Solution | | - | X | X | X | A | A | B | - | - | - | A | - | - | - | A | - |
| Picric Acid (Carbazotic Acid) | (NO ₂) ₃ C ₆ H ₂ OH | B | B | X | B | A | X | A | A | C | A | B | B | - | A | A | - |
| Pinene | C ₁₀ H ₁₆ | B | X | - | X | A | C | A | - | - | - | - | - | - | - | A | - |
| Piperidine | C ₅ H ₁₁ N | X | X | - | X | A | B | X | - | - | - | - | - | - | - | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Plating Solution | | | | | | | | | | | | | | | | | |
| Cadmium | | B | - | - | B | A | A | - | - | - | A | - | X | - | B | A | - |
| Chrome | | X | C | - | X | A | A | A | - | - | - | - | X | X | B | A | X |
| Lead | | B | - | - | B | A | A | - | - | - | - | - | A | A | B | A | X |
| Others | | A | A | - | C | A | A | B | - | - | A | - | - | - | - | A | - |
| Polyvinyl Acetate Emulsion | PVac = H ₂ O | - | A | - | C | A | A | - | - | B | B | - | A | - | A | A | - |
| Potassium Acetate | CH ₃ CO ₂ K | B | A | - | B | A | A | X | B/10% | A | B | - | A | - | A | A | - |
| Potassium Bicarbonate | KHCO ₃ | A | - | - | A | A | A | A | B | B/40% | A/30% | B | A | - | A | A | A |
| Potassium Bisulfate | KHSO ₄ | A | - | - | A | A | - | A | A/10% | X | A/10% | B | A | - | A | A | - |
| Potassium Bisulfite | KHSO ₃ | A | - | - | A | A | - | A | B/10% | - | B/10% | - | - | - | - | A | - |
| Potassium Bromide | KBr | A | A | - | A | A | A | A | A | B/80% 212° | B/90% 212° | A | A | - | A | A | A |
| Potassium Carbonate (Potash) | K ₂ CO ₃ | A | A | - | A | A | A | A | X | B | B | A | A | B | A | A | A |
| Potassium Chlorate | KClO ₃ | A | A | - | A | A | A | A | X | B | A/60% | A | A | B | A | A | A |
| Potassium Chloride | KCl | A | A | - | A | A | A | A | X | B | A | A | A | B | A | A | A |
| Potassium Chromate | K ₂ CrO ₄ | A | - | - | A | A/40% | A | A | A | A | A | - | A | - | A | A | - |
| Potassium Copper Cyanide | K ₃ [Cu(CN) ₄] | A | A | - | A | A | - | A | - | - | - | - | A | - | - | A | - |
| Potassium Cyanide | KCN | A | A | - | A | A | A | A | C | B | B/90% 212° | B | A | C | A | A | A |
| Potassium Dichromate | K ₂ Cr ₂ O | A | A | - | A | A | A | A | A | A | A | B | A | C | A | A | A |
| Potassium Hydroxide (Caustic Potash) (Lye) | KOH | B | A | X | B | A | A | B | X | B | A | B | A | C | A/150° | A | A |
| Potassium Iodide | KI | A | A | - | A | A | A | A | B/10% | - | B | B | A | - | A | A | - |
| Potassium Nitrate (Saltpeter) | KNO ₃ | A | A | - | A | A | A | A | A/80% | B | B/80% 212° | B | A | B | A | A | A |

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| Potassium Nitrite | KNO ₂ | A | A | B | A | A | A | A | B | B | B | B | A/70° | - | - | A | - |
| Potassium Permanganate (Purple Salt) | KMnO ₄ | C | A | X | C | A | A | B | A/10% | B | B/30% 212° | A | B | A | A | A | A |
| Potassium Phosphate | KH ₂ PO ₄ | A | A | - | A | A | - | A | X | X | B/30% | B | - | - | - | A | - |
| Potassium Silicate | K ₂ Sii2O ₅ | A | A | - | A | A | - | A | B | B | B | B | - | - | - | A | - |
| Potassium Sulfate | K ₂ SO ₄ | A | A | B | A | A | A | A | B | B | A | A | A | B | A | A | A |
| Potassium Sulfide | K ₂ S | A | A | - | A | A | - | A | X | B | B | B | A | - | A | A | A |
| Potassium Sulfite | K ₂ SO ₃ ·2H ₂ O | A | A | - | A | A | - | A | A | X | B/50% | - | A | - | A | A | - |
| Propane (LPG) | C ₃ H ₈ | A | X | B | B | A | X | A | A | A | A | A | X | A | A | A | - |
| Propionaldehyde (Propanal) | C ₂ H ₅ CHO | X | - | - | - | A | - | X | A | A | A | A | - | - | - | A | - |
| Propionic Acid (Methylacetic Acid) | CH ₃ CH ₂ CO ₂ H | X | A | - | X | A | A | X | A | X | B | A | B | - | - | A | - |
| n-Propyl Acetate | CH ₃ COO (CH ₂) ₂ CH ₃ | X | A | - | X | A | B | X | A | - | A | A | C | - | A | A | - |
| Propyl Alcohol (1-Propanol) | CH ₃ CH ₂ CH ₂ OH | B | A | - | B | A | A | A | A | A | A | A | A | A | A | A | A |
| n-Propyl Nitrate (NPN) | CH ₃ (CH ₂) ₂ NO ₃ | A | B | - | - | A | B | C | A | X | - | - | - | - | - | A | - |
| Propylene | C ₃ H ₆ | X | X | - | X | A | B | A | A | A | A | A | - | - | - | A | - |
| Propylene Dichloride | CH ₃ CH(Cl)CH ₂ Cl | X | X | - | X | A | - | B | X | A | A | B | - | - | - | A | - |
| Propylene Glycol (Methyl Glycol) | C ₃ H ₆ (OH) ₂ | A | A | A | C | A | A | A | A | A | A | A | A | A | A | A | A |
| Propylene Oxide | C ₃ H ₆ O | - | C | - | X | A | A | X | B | B | A | - | X | - | X | A | - |
| Pydraul (Phosphate Ester Base Fluid) | | X | B | A | X | A | B | A | - | A | A | A | - | - | - | A | - |
| Pyranol | | A | - | - | X | A | - | A | - | - | - | - | - | - | - | A | - |
| Pyridine | N(CH) ₄ CH | X | C | X | X | A | A | X | A | B | A | A | C | X | X | A | A |

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| Pyroligneous Acid (Wood Vinegar) | | C | C | - | C | A | - | A | B | X | A/10% | - | A | - | A | A | - |
| Pyrrole (Azole) | | X | X | - | X | A | C | C | - | - | - | - | - | - | - | A | - |
| Quaternary Ammonium Salts | | A | - | - | A | A | - | A | - | X | A | - | - | - | - | A | - |
| Rosin | C ₂₀ H ₃₀ O ₂ | A | - | - | C | A | A | - | A | - | A | A | A | - | - | A | - |
| Rotenone | C ₂₃ H ₂₂ O | A | A | - | A | A | - | A | - | - | - | - | - | - | - | A | - |
| Rubber Latex Emulsions | (C ₅ H ₈) _n /H ₂ O | - | - | - | - | A | - | A | A | - | A | A | - | - | - | A | - |
| Rubber Solvents (Petroleum Distillate) | Hydrocarbons | X | - | - | C | A | - | X | A | - | A | A | - | - | - | A | - |
| Rum | Alcoholic liquor from molasses | A | A | - | A | A | A | B | - | - | A | A | - | - | - | A | - |
| Rust Inhibitors | | A | - | - | C | - | B | A | - | - | A | - | A | - | - | A | - |
| Salad Dressing | Fats, oils, water | A | - | - | - | - | A | A | B | X | A | - | A | - | - | A | - |
| Sal Ammonian (Ammonium Chloride) | NH ₄ Cl | A | - | A | A | A | A | A | X | X | A | A | - | X | - | A | A |
| Sal Soda (Sodium Carbonate) | NaCO ₃ | A | A | - | A | A | B | A | X | A | A | A | - | - | - | A | - |
| Salicyclic Acid | HOC ₆ H ₄ COOH | B | A | - | B | A | - | B | A | X | B | A | A | - | A | A | - |
| Salt Water (Brine) | NaCl/H ₂ O | A | A | A | B | A | A | A | B | X | A | A | A | - | A | A | - |
| Sea Water | (Brine) | A | A | A | B | A | A | A | A | C | A | A | A | A | A | A | A |
| Sewage | | A | C | B | B | A | A | A | B | B | A | A | A | - | A | A | - |
| Silicate Esters | Si(OR) ₄ | B | X | C | A | A | B | A | - | - | - | - | - | - | - | A | - |
| Silver Cyanide | AgCN | - | - | - | A | A | - | - | X | A | A | A | A | - | A | A | - |
| Silver Nitrate | AgNO ₃ | B | A | - | A | A | A | A | X | X | A/60% | A | A | A | A | A | A |
| Skydrol Hydraulic Fluid (Phosphate Ester Base) | | X | A | A | X | A | A | C | A | A | A | A | - | - | - | A | - |

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| Soap Solutions | Salt of fatty acid in H ₂ O | A | A | A | B | A | A | A | C | X | A | A | A | A | A | A | A |
| Soda Ash (Sodium Carbonate) | Na ₂ CO ₃ | A | A | B | A | A | A | A | X | A | A | A | - | - | - | A | - |
| Sodium Acetate | CH ₃ COONa | C | A | - | C | A | A | X | A | A | A | A | A | A | A | A | A |
| Sodium Aluminate | Na ₂ AL ₂ O ₄ | A | - | - | A | A | A | A | - | A/40% | A/40% | B | A | - | A | A | - |
| Sodium Bicarbonate (Baking Soda) | NaHCO ₃ | A | A | B | A | A | A | A | B | C | A/20% | A | A | X | A | A | A |
| Sodium Bisulfite (Niter Cake) | NaHSO ₄ | A | A | B | A | A | A | A | B/50% | C | B/50% | B | A | C | A | A | A |
| Sodium Bisulfate | NaHSO ₃ | C | A | B | A | A | A | A | B | B/20% | A/50% | B | A | X | A | A | - |
| Sodium Borate | Na ₂ B ₄ O ₇ | A | A | B | A | A | A | A | B | - | A | A | A/140% | C | A | A | A |
| Sodium Bromide | NaBr | - | - | - | - | A | - | - | C | C | B/30% | B | A | - | A | A | - |
| Sodium Chlorate | NaClO ₃ | A | A | - | B | A | A | A | B/70% 212° | B | B | B | A | B | A | A | A |
| Sodium Chloride (Table Salt) | NaCl | A | A | A | A | A | A | A | B | B/30% | A | A | A | A | A | A | A |
| Sodium Chromate | Na ₂ CrO ₄ | A | - | A | A | A | A | A | A/80% 212° | A/60% | A/60% | A | A | - | A | A | - |
| Sodium Cyanide | NaCN | A | A | A | A | A | A | A | X | A | A | - | A | C | A | A | A |
| Sodium Dichromate (Sodium Bichromate) | Na ₂ Cr ₂ O ₇ * 2H ₂ O | - | A | X | B | A | - | A | - | - | - | - | A | - | A | A | A |
| Sodium Fluoride | NaF | A | A | - | A | A | - | A | B/30% | - | B/10% | B | A | - | A | A | - |
| Sodium Hexametaphosphate (Calgon) | (NaPO ₃) ₃ | B | B | - | B | A | - | A | C | B | B | A | A | - | A | A | - |
| Sodium Hydroxide (Caustic Soda) (Lye) | NaOH | B | A | X | B | A | A | X | X | B/50% | A/50% | B | A | X | A | A | X |
| Sodium Hypochlorite | NaClO | X | B | X | B | A | A | B | X | X | X | B | X | X | A | A | X |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Sodium Metaphosphate (Kurrol's Salt) | Na(PO ₃)H | B | A | - | C | A | A | A | X | - | B | A | A/70% | B | - | A | - |
| Sodium Metasilicate | Na ₂ SiO ₃ | A | A | - | A | - | A | A | B | - | A | A | A | B | A | A | - |
| Sodium Nitrate (Chile Saltpeter) | NaNO ₃ | C | A | B | B | A | A | A | A/90% | A/90% | A/90% | A | A | A | A | A | A |
| Sodium Nitrite | NaNO ₂ | A | - | - | X | A | - | A | A | A | A | A | A | - | A | A | - |
| Sodium Perborate | NaBO ₃ | C | A | B | B | A | A | A | X | B/10% | A | B | A | B | A | A | - |
| Sodium Peroxide (Sodium Dioxide) | Na ₂ O ₂ | B | B | B | B | A | B | A | B/10% | A/90% | B/10% | B | B | X | A | A | - |
| Sodium Phosphate (Tribasic (TSP)) | Na ₃ PO ₄ | B | A | B | B | A | A | A | X | B/167% | B | A | A | - | A | A | - |
| Sodium Silicates (Water Glass) | Na ₂ O * SiO ₂ | A | A | A | A | A | A | A | A | A | A | B | A | - | A | A | A |
| Sodium Sulfate (Salt Cake) (Thenardite) | Na ₂ SO ₄ | A | A | A | B | A | A | A | B/30% | B | A | A | A | - | A | A | A |
| Sodium Sulfide (Pentahydrate) | Na ₂ S * 5H ₂ O | A | A | A | A | A | A | A | A/30% 212° | B | A/30% 167° | B | A | A | A | A | A |
| Sodium Sulfite | Na ₂ SO ₃ | A | A | A | A | A | - | A | A/30% | X | A/30% | B | A | A | A | A | A |
| Sodium Tetraborate | Na ₂ B ₄ O ₇ 10H ₂ O | A | - | B | - | A | A | A | - | - | A | - | C | - | A | A | A |
| Sodium Thiosulfate (Antichlor) | Na ₂ S ₂ O ₃ | A | A | - | A | A | - | A | A | C | A/122° | B | A | B | A | A | A |
| Sorgum | | A | - | - | A | A | A | - | - | A | A | A | - | - | - | A | - |
| Soy Sauce | Fermented soya bean/wheat | A | - | - | A | A | A | - | - | X | A | - | - | - | - | A | - |
| Stannic Chloride (Tin Chloride) | SnCl ₄ | A | B | B | B | A | A | A | X | C | A/10% | A | A | - | A | A | - |
| Stannous Chloride (Tin Salt) | SnCl ₄ | A | B | B/15% | A | A | - | A | X | B | A/10% | B | A | - | A | A | A |
| Starch | C ₆ H ₁₀ O ₅ | A | B | B | A | A | A | C | A | C | A | A | A | B | - | A | A |
| Stearic Acid | CH ₃ (CH ₂) ₁₆ CO ₂ H | B | B | B | B/158° | A | A | A | C | C | A | B | A | C | A | A | - |
| Stoddard Solvent | Petroleum distillate | A | X | A | C | A | X | - | A | A | A | X | A | A | X | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Styrene (Vinylbenzene) | C ₆ H ₅ CHCH ₂ | X | X | X | X | A | C | A | A | A | A | A | - | - | A | A | - |
| Sucrose Solution (Sugar) | C ₁₂ H ₂₂ O ₁₁ /H ₂ O | A | A | A | A | A | A | A | A | A | A | A | - | - | - | A | - |
| Sulfamic Acid | H ₂ NSO ₃ H | B | - | A | A | A | - | - | A/10% | X | X | - | X | - | X | A | - |
| Sulfite Liquors | | A | C | B | B | A | A | A | - | - | - | A | - | - | - | A | - |
| Sulfur | S | X | A | A | B | A | A | A | A | A | A | B | A | A | A | A | A |
| Sulfur Chloride | S ₂ Cl ₂ | C | X | C | X | A | X | A | B | X | B | A | X | - | A | A | - |
| Sulfur Dioxide | SO ₂ | X | B | X | A | A | A | A | A | B | A/10% | A | A | B | A | A | A |
| Sulfur Hexafluoride | SF ₆ | B | A | A | A | A | B | A | - | - | - | - | - | - | - | A | - |
| Sulfur Trioxide | SO ₃ | C | C | X | C | A | C | A | B | B | B | B | X | - | X | A | - |
| Sulfuric Acid | | | | | | | | | | | | | | | | | |
| 10% | H ₂ SO ₄ | B | A | X | A | A | A | A | X | X | A | A | A | - | A | A | - |
| 25% | H ₂ SO ₄ | C | B | X | B | A | A | A | X | X | B | A | A | - | A/150° | A | X |
| 50% | H ₂ SO ₄ | C | B | X | B | A | A | A | X | X | X | A | A | - | A/150° | A | X |
| 60% | H ₂ SO ₄ | X | B | X | C | A | A | A | X | X | X | A | A | - | A/150° | A | X |
| 75% | H ₂ SO ₄ | X | C | X | X | A | A | A | X | C | C | A | A | - | A/150° | A | X |
| 95% | H ₂ SO ₄ | X | C | X | X | A | A | A | X | B | A | A | X | - | A/120° | A | X |
| Concentrated | H ₂ SO ₄ | X | C | X | X | A | B | A | X | B | B | A | X | - | A/120° | A | - |
| Fuming | H ₂ SO ₂ | X | X | X | X | A | - | B | C | X | B | B | - | - | - | A | - |
| Sulfurous Acid | H ₂ SO ₃ | B | A | C | X | A | A | A | B | X | B | B | A | X | A | A | A |
| Tall Oil (Liquid Rosin) | Rosin acids | A | X | - | B | A | A | A | X | B/212° | B | A | A | - | A | A | - |
| Tallow | Fat from cattle, sheep | A | - | - | - | A | B | A | A | - | A | - | B | C | - | A | - |
| Tannic Acid | C ₇₆ H ₅₂ O ₄₆ | C | C | A/10% | B | A | A | A | A | A | A | B | A | X | A | A | A |
| Tanning Liquors | Tannic acid | A | - | - | B | A | A | - | A | - | A | A | A | X | - | A | - |
| Tar, Bituminous (Coal Tar) (Pitch) | Mixture of aromatic & phenolic hydrocarbons | B | X | B | C | A | B | A | A | - | A | A | A | A | - | A | - |

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| CHEMICAL | FORMULA | | | | | | | | | | | | | | | | |
| Tartaric Acid | C ₄ H ₆ O ₆ | B | B | B | A | A | A | A | A/20% | X | A | A | A | X | A | A | A |
| Terpenes | C ₁₀ hydrocarbons | C | X | - | X | A | - | A | A | X | - | - | - | - | - | A | - |
| Terpineol (Terpilenol) | C ₁₀ H ₁₈ O | C | C | - | X | A | B | A | A | A | A | A | X | - | B/120° | A | - |
| Teritary Butyl Alcohol | (CH ₃) ₃ COH | A | - | - | A | A | B | B | - | - | - | - | B | - | - | A | - |
| Teritary Butyl Catechol | C ₉ H ₁₄ O ₂ | X | - | - | B | A | B | A | C | B | B | - | - | - | - | A | - |
| Teritary Butyl Mercaptan | C ₄ H ₁₀ S | X | - | - | X | A | B | A | B | - | - | - | - | - | - | A | - |
| Tetra Bromomethane | CBr ₄ | X | - | - | X | A | X | A | X | - | - | - | X | - | - | A | - |
| Tetrabutyl Titanate | Ti(C ₄ H ₉) | B | B | - | A | A | B | A | - | - | - | - | - | - | - | A | - |
| Tetrachloroethylene | Cl ₂ C = CCl ₂ | - | - | - | - | A | X | A | B | - | A | A | X | - | A | A | - |
| Tetrachlorodifluoroethane | (Cl ₂ FC) ₂ | X | - | - | X | A | - | - | - | - | - | - | - | - | - | A | - |
| Tetrachloroethane (Acetylene Tetrachloride) | (Cl ₂ HC) ₂ | X | X | - | X | A | X | A | X | A | C | A | X | A | A | A | - |
| Tetraethyl Lead | Pb(C ₂ H ₅) ₄ | B | X | - | X | A | C | B | B | A | A | - | A | - | A | A | - |
| Tetraethylene Glycol (TEG) | HOCH ₂ (CH ₂ OCH ₂) ₃ CH ₂ OH | A | - | - | - | A | - | A | - | - | - | - | - | - | - | A | - |
| Tetrahydrofuran (THF) | C ₄ H ₈ O | X | C | C | X | A | X | X | - | - | A | - | C/100° | A | B/70° | A | A |
| Tetrahydronaphthalene (Tetralin) | C ₁₀ H ₁₂ | X | X | - | X | A | - | A | A | A | A | A | C | - | - | A | A |
| Thionyl Chloride | SOCl ₂ | X | X | - | X | A | B | B | X | X | X | A | B | B | X | A | - |
| Thiopene | C ₄ H ₄ S | X | X | - | X | A | - | C | - | - | - | - | - | - | - | A | - |
| Titanium Tetrachloride | TiCl ₄ | C | X | - | X | A | X | A | X | A | B | B | B | - | B | A | - |
| Toluene (Toluol) | C ₇ H ₈ | C | X | C | X | A | X | B | A | A | A | A | X | B | A | A | A |
| Toluene Diisocyanate | CH ₃ C ₆ H ₃ (NCO) ₂ | - | A | B | X | A | B | A | A | - | - | - | - | - | - | A | - |
| Toluidine | CH ₃ C ₆ H ₄ NH ₂ | X | - | - | - | A | - | B | A | A | A | A | - | - | - | A | - |
| Tomato Pulp & Juice | | A | - | - | - | A | A | - | B | - | A | A | A | - | A | A | A |

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| Toothpaste | | A | A | - | C | A | - | A | - | X | A | A | A | - | - | A | - |
| Transmission Fluid (Type A) | | A | X | B | C | A | C | A | A | A | A | A | - | - | - | A | - |
| Triacetin | C ₃ H ₅ (OCOCH ₃) ₃ | A | A | - | B | A | A | X | B | - | - | - | - | - | - | A | - |
| Triallyl Phosphate | P(OC ₃ H ₅) ₃ | X | A | - | C | A | - | A | - | - | - | - | B | - | A | A | - |
| Triaryl Phosphate | (C ₆ H ₅ O) ₃ PO | X | - | - | C | A | - | A | - | - | - | - | - | - | - | A | - |
| Tributoxyl Ethyl Phosphate | (C ₄ H ₉ O) ₃ P(C ₂ H ₅) | X | A | - | X | A | B | B | - | - | - | - | - | - | - | A | - |
| Tributyl Phosphate (TBP) | (C ₄ H ₉) ₃ PO ₄ | X | C | C | X | A | B | X | A | A | A | - | B/100° | - | A/100° | A | - |
| Tributyl Mercaptan | (C ₄ H ₉) ₂ S | X | - | - | X | A | - | A | - | - | - | - | - | - | - | A | - |
| Trichloroacetic Acid (TCA) | CCl ₃ COOH | C | C | X | B | A | B | B | X | X | X | B | B | - | B | A | A |
| Trichlorobenzenes | C ₆ H ₃ Cl ₃ | X | - | - | X | A | - | B | X | A | A | B | - | - | - | A | - |
| Trichloroethane | C ₂ H ₃ Cl ₃ | X | X | - | X | A | X | B | X | A | A | A | X | - | A | A | A |
| Trichloroethylene (Ex-Tri) (Hi-Tri) | C ₂ HCl ₃ | X | X | X | X | A | X | C | X | B | A/90% 167° | A | X | B | A | A | A |
| Trichloropropane | CH ₂ ClCH ClCH ₂ Cl | X | - | - | X | A | X | B | X | X | A | A | X | - | - | A | - |
| Tricesyl Phosphate (Lindol) (TCP) | (CH ₃ C ₆ H ₄ O) ₃ PO | X | A | C | C | A | B | C | - | A | B | A | B | - | X | A | - |
| Triethanol Amine (TEA) | C ₁₂ H ₂₅ CH ₂ OH | X | B | X | A | A | A | C | A | A | A | A | A | B | X | A | A |
| Trethyl Aluminum (ATE) | N(C ₂ H ₄ OH) ₃ | X | - | - | X | A | B | B | - | - | - | - | - | - | - | A | - |
| Triethyl Amine | (CH ₃ CH ₂) ₃ N | A | - | - | B | A | - | - | - | A | A | A | C | - | A/120° | A | - |
| Triethyl Borane | (C ₂ H ₅) ₃ B | X | - | - | X | A | B | A | - | - | - | - | - | - | - | A | - |
| Triethylene Glycol (TEG) | (CH ₂ OCH ₂ CHOH) ₂ | A | - | - | - | A | - | A | A | - | A | - | A | - | - | A | - |
| Trimethylene Glycol | HO(CH ₂) ₃ OH | A | A | - | - | A | - | A | A | - | A | A | - | - | - | A | - |
| Trinitrotoluene (TNT) | CH ₃ C ₆ H ₂ (NO ₂) ₃ | X | X | - | B | A | A | B | - | - | - | - | - | - | - | A | - |

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| Trioctyl Phosphate | (C ₈ H ₁₇ O) ₃ PO | X | A | - | X | A | B | B | - | - | - | - | - | - | - | A | - |
| Turpentine | C ₁₀ H ₁₆ | A | X | B | X | A | X | A | A | A | A | A | X | A | A | A | A |
| Unsymmetrical Dimethyl Hydrazine (UDMH) | H ₂ NN(CH ₃) ₂ | C | A | - | C | A | B | X | - | - | - | - | - | A | A | A | - |
| Urea (Carbamide) | CO(NH ₂) ₂ | B | A | B | B | A | A | A | B | - | B/50% | - | A | - | A | A | A |
| Urine | | A | - | - | X | A | A | A | A | A | A | A | A | A | A | A | - |
| Valeric Acid | CH ₃ (CH ₂)COOH | X | A | - | X | A | - | - | A | - | - | - | - | - | - | A | - |
| Vanilla Extract (Vanillin) | C ₆ H ₃ (CHO) (OCH ₃)(OH) | A | - | - | X | A | - | X | - | - | A | - | - | - | - | A | - |
| Varnish | Oil,gum resins, oil of turpentine | B | X | - | C | A | - | A | A | - | A | A | A | A | A | A | - |
| Vegetable Juices | | A | - | - | C | A | A | - | C | - | A | - | A | - | - | A | - |
| Vinegar | Dilute acetic acid | C | A | C | B | A | A | A | C | X | A | A | A | A | A | A | A |
| Vinyl Acetate | CH ₂ C00C HCH ₂ | X | A | - | B | A | - | X | B | A | A | A | B | - | A | A | - |
| Vinyl Chloride (Chlorethylene) | CH ₂ CHCl | X | C | - | X | A | X | A | X | A | A | A | X | - | B | A | - |
| Water Distilled | H ₂ O | A | A | A | B | A | A | A | A | C | A | A | A | A | A | A | A |
| Water Fresh | H ₂ O | A | A | A | B | A | A | A | A | A | A | A | A | A | A | A | A |
| Waxes | Hydrocarbons | A | X | - | A | A | - | - | A | - | A | A | - | A | - | A | - |
| Weed Killers | | B | - | - | C | - | B | A | X | - | A | - | - | - | - | A | - |
| Whiskey | Ethanol, esters, acids | B | A | B | A | A | A | A | A | X | A | A | A | B | A | A | - |
| White Sulfate Liquor | | B | A | - | A | A | - | B | B | C | A | B | A | - | A | A | - |
| Wines | | A | A | A | A | A | A | B | C | X | A | A | A | - | A | A | - |
| Wort, Distillery | Sugar solution from malt | - | - | - | A | A | - | A | A | A | B | A | A | B | - | A | - |
| Xylene (Xylol) | C ₆ H ₄ (CH ₃) ₂ | X | X | C | X | A | X | A | A | B | B | A | X | - | A | A | A |

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| Xylidines (Xylidin) | $(CH_3)_2C_6H_3NH_2$ | - | X | - | X | A | C | X | B | B | - | - | - | - | - | A | - |
| Zeolite | Hydrated alkali aluminum silicates | C | A | - | C | A | A | A | - | - | A | A | - | - | - | A | - |
| Zinc Acetate | $Zn(C_2H_3O)_2$ | C | A | - | B | A | A | X | C | - | - | - | A | - | A | A | - |
| Zinc Carbonate | $ZnCO_3$ | A | - | - | - | A | - | A | B | B | B | B | - | - | - | A | - |
| Zinc Chloride | $ZnCl_2$ | B | A | A | B | A | A | A | A/10% | B | A/10% | A | A | B | A | A | A |
| Zinc Hydrosulfite | $ZnHSO_3$ | A | - | - | A | A | A | A | X | - | A | - | - | - | - | A | - |
| Zinc Sulfate | $ZnSO_4$ | A | A | X | A | A | A | B | B/20% | X | B | B | A | B | A | A | A |

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Proper Pump Material Selection

One of the more difficult tasks in selecting a pump for long, trouble free service is the proper choice of both wetted and non-wetted pump components. Pump components wear, and the objective is to get the longest life from the wearing parts. Knowing how to handle abrasive and corrosive fluids will lead to proper wetted materials selection.

When selecting a pump for corrosive service most use chemical compatibility charts and graphs for selecting and recommending pump materials of construction. These charts; at best, are meant as ever so general guidelines. Practical experience, and past history will dictate the use of certain materials with various fluids.

On slightly aggressive fluids it may be more beneficial from a service life/dollar view point to use a material which; while not the optimal material, has been determined capable of offering satisfactory results. When discussing diaphragm pumps, Teflon®; for example, while the preferred material when handling Amyl-Alcohol has a lower flex life rating than Neoprene® which has a “B” vs. “A” chemical compatibility rating but, offers the higher flex life of the two. The “B” rating indicates the Neoprene will perform, however; shorten flex life will be a result. When lesser rated materials offer the same life expectancy as the preferred materials, they may be the viable alternative for the investment, as with the case of Amyl-Alcohol where the replacement price of Teflon is quadruple that of the Neoprene.

When discussing pump components which see corrosive fluids at high velocities erosion will occur faster than the lower velocity areas of a pump. Erosion is accelerated by corrosion. When faced with choosing a “B” rated material versus an “A” rated material the affects of erosion as related to specific pump components should be considered.

A common misconception when handling abrasives and solids in suspension is their sharpness; ability to cut. When selecting diaphragms and valve balls for a diaphragm pump, sharp particulate will have a tendency to cut a Teflon diaphragm and embed in a Teflon valve ball. Should the diaphragm pump incorporate metallic valve seats the Teflon valve ball with embedded solids will accelerate valve seat wear. Elastomeric balls and seats being resilient will permit

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sharp particulate to “bounce” or reflect off their surface. While cutting and embedding can occur it will be reduced.

For diaphragm and plunger pumps using ball and valve seat arrangements the hardness of the ball and seat materials will affect their ability to pull a vacuum. A hard valve ball checking on a hard metallic valve seat is noisy and does not offer the sealing ability of hard to soft; Teflon or metal, to elastomeric combination.

The application itself will dictate the choice of materials on occasion. Should high static lifts and vacuums be experienced the chances of cavitation exist. A progressive cavity pump when addressed with cavitation will result in pitting and removal of material from the elastomeric stator. Operated dry for a short period of time the rotor, stator combination will be completely destroyed. The same is true with coatings and linings of pump components. When encountering the implosions created during cavitation expensive coatings are cratered and linings are pulled from their base.

A statement commonly made in the positive displacement pump circle is “oversize, operate slower”. While there is some merit to the verbiage, it must be made with a degree of knowledge of the application and the equipment. There is no doubt a larger pump operating at lower speeds; providing it meets all the application criteria, will out service a smaller pump running faster.

Recognizing the competitive marketplace both user and manufacturer are faced with, it is not practical, nor financially beneficial to merely substitute large for small. However; when the service life versus investment ratio becomes too high, the decision can now be justified. Unfortunately; faced with the risk of losing business, or exceeding a budget, many of those recommending and supplying positive displacement pumps recognize only the investment portion of the equation.

These scenarios are typical when selecting materials of construction. Decisions should be based on a materials estimated life expectancy, down-time, complexity of repair, and costs; not necessarily in this order.



YAMADA AMERICA, INC.

955 East Algonquin Rd
Arlington Heights, IL 60005
Phone: 847.631.9200
Fax: 847.631.9273
www.yamadapump.com
sales@yamadapump.com

YAMADA CORPORATION

International Department
No. 1-3, 1-Chome, Minami Magome, Ohta-Ku
Tokyo, 143, Japan
Phone: Tokyo (03) 3777-0241 • Fax: Tokyo (03) 3777-0584

