## CHEMICAL COMPATIBILITY CHART

### Group 1: Inorganic Acids
- Chlorous acid
- Hydrofluoric acid (aqueous)
- Hydrofluoric acid (gaseous)
- Hydrogen chloride (anhydrous)
- Hydrogen fluoride (anhydrous)
- Nitric acid
- Oleum
- Phosphorous acid
- Sulfuric acid

### Group 2: Organic Acids
- Acetic acid
- Butyric acid (n-)
- Formic acid
- Propionic acid
- Rosin oil
- Tallow

### Group 3: Carboxylic Acids
- Butyric acid
- Caproic acid
- Caprylic acid
- Capric acid
- Lactic acid
- Octanoic acid
- Palmitic acid
- Pivalic acid
- Stearic acid
- Valeric acid

### Group 4: Amines and Alkanamines
- Aminomethylpropanol
- Dimethylamine
- Diethylamine
- Methylamine
- Propylamine

### Group 5: Halogenated Compounds
- Carbon tetrachloride
- Chlorobenzene
- Chloroform
- Dichloroethane (d.
- Dichloromethane (p.
- Dichloroethylene
- Dichloropropane
- Dichloropropene
- Ethyl chloride
- Ethylene dichloride
- Ethylene oxide
- Methyl bromide
- Methyl chloride
- Methylene chloride
- Monochlorodiethane
- Perchloroethylene
- Propylene dichloride
- 1,2-Dichlorobenzene
- 1,1-Dichloroethane
- Trichloroethylene
- Trichloroethoxymethane

### Group 6: Alcohols, Glycols and Glycol Ethers
- Allyl alcohol
- Amyl alcohol
- Butanol (iso, sec, tert)
- Butyl alcohol (iso, n, sec, tert)
- Butyraldehyde (n, iso)
- Crotonaldehyde
- Decanaldehyde (n, iso)
- 2-Ethyl-hexy-3-propionaldehyde
- Formaldehyde solutions
- Furfural
- Hexamethylenetramine
- Isoamyl alcohol
- Methyl butyrate
- Methyl formate
- Paraldehydes
- Valeraldehyde

### Group 7: Aldehydes
- Acetaldehyde
- Acrolein (inhibited)
- Butylacetaldehyde (n, iso)
- Crotonaldehyde
- Decanaldehyde (n, iso)
- 2-Ethyl-hexy-3-propionaldehyde
- Formaldehyde solutions
- Furfural
- Hexamethylenetramine
- Isoamyl alcohol
- Methyl butyrate
- Methyl formate
- Paraldehydes
- Valeraldehyde

### Group 8: Ketones
- Acetone
- Acetonitrile
- Acetonitrile
- Butyraldehyde (n, iso)
- Crotonaldehyde
- Decanaldehyde (n, iso)
- 2-Ethyl-hexy-3-propionaldehyde
- Formaldehyde solutions
- Furfural
- Hexanenitropentane
- Isoamyl alcohol
- Methyl butyrate
- Methyl formate
- Paraldehydes
- Valeraldehyde

### Group 9: Saturated Hydrocarbons
- Butane
- Butanol (isopentyl, isopropyl, propyl, tert)
- Butyl alcohol (iso, n, sec, tert)
- Butyraldehyde (n, iso)
- Crotonaldehyde
- Decanaldehyde (n, iso)
- 2-Ethyl-hexy-3-propionaldehyde
- Formaldehyde solutions
- Furfural
- Hexanenitropentane
- Isoamyl alcohol
- Methyl butyrate
- Methyl formate
- Paraldehydes
- Valeraldehyde

### Group 10: Aliphatic Hydrocarbons
- Benzene
- Cyclohexane
- Ethanone
- Isobutane
- Isopentane (n, iso)
- Isopropyl alcohol
- Liquefied natural gas
- Liquefied petroleum gas
- Methane
- Methanol
- N-Octane
- Pentane
- Polyethylene glycol methyl ether
- Propyl alcohol (n, iso)
- Propylene glycol
- Sorbitol
- Terdecane
- Tetradecane
- Tetraethylene glycol
- Tridecyl alcohol
- Tridecyl alcohol
- Undecane

### Group 11: Olefins
- Butene
- 5-Decene
- 6-Decene
- 5-Ethylpentene-1
- Acetaldehyde
- Ethylene
- Ethylene glycol monomethyl ether
- Ethylene glycol monooctyl ether
- Ethylene oxide
- Ethylene glycol
e-3-propionaldehyde
- Formaldehyde solutions
- Furfural
- Hexane
- Methyl formate
- Paraldehydes
- Valeraldehyde

### Group 12: Petroleum Oils
- Gasolines
- Jet Fuels
- JP-1 (kerosene)
- JP-2
- JP-4
- JP-5 (kerosene, heavy)
- Kerosene
- Mineral spirits
- Naphtha (non aromatic)
- Naphthalene
- Solvent
- Stoddard solvent
- VM&VP

### Group 13: Esters
- Amyl acetate
- Amyl salicylate
- Butyl acetate (n, iso)
- Butyl benzoate
- Castor oil
- Croton oil
- Dibutyl sebacate
- Diethyl carbonate
- Dimethyl sulfide
- Diisopropyl adipate
- Diisopropyl phthalate
- Epoxidized soybean oil
- Ethyl acetate
- Ethyl clorethane
- Ethylene glycol monooctyl ether acetate
- Ethylene glycol
- Fish oil
- Glucose diacetate
- Methyl acetate
- Methyl amyl acetate
- Neatsfoot oil
- Olive oil
- Peanut oil
- Propyl acetate (n, iso)
- Rosin oil
- Soybean oil
- Spree oil
- Tallow
- Tar
- Toluene
- Vegetable oil
- Wax, carnauba

### Group 14: Monomers and Polymerizable esters
- Acrylic acid (inhibited)
- Acrylonitrile
- Butadiene
- Butyl acrylate (n, iso)
- Ethyl acrylate (inhibited)
- 2-Ethyl-hexy-3-propionaldehyde
- Isocyanate (inhibited)
- Isopropanol (inhibited)
- Methyl acrylate (inhibited)
- Methyl methacrylate (inhibited)
- Methyl propionate
- Vinyl acetate (inhibited)
- Vinyl chloride (inhibited)
- Vinylidene chloride (inhibited)

### Group 15: Phenols
- Carboxylic acid
- Cresol
- Coal tar
- Creatine
- Naphthalene
- Phenol

### Group 16: Aromatic Oxides
- Ethylene Oxide
- Propylene Oxide

### Group 17: Cyanohydrins
- Acetone cyanohydrin
- Ethylene cyanohydrin

### Group 18: Nitriles
- Acetonitrile
- Adiponitrile

### Group 19: Ammonia
- Ammonium hydroxide

### Group 20: Halogens
- Bromine
- Chlorine

### Group 21: Iodides
- Diethyl ether (ethyl ether)
- 1,4-Dioxane
- Isopropanol ether
- Tetrahydrofuran

### Group 22: Phosphorus, elemental
- Phosphorus

### Group 23: Sulphur, molten
- Sulphur

### Group 24: Acid Anhydrides
- Acetic anhydride
- Propionic anhydride

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## CHEMICAL RESISTANCE OF PLASTICS

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### Key

- **R** Resistant
- **U** Unsuitable
- **V** Vapour diffusion
- **L** Limited resistance
- **%** Max concentration
- **SW** Swelling occurs
- **A** Slowly attacked (not recommended for long term storage)
- **E** Environmental stress cracking

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