

## Chemical Compatibility Table

Chemical		Liquid-end Model(s)	Application(s)
Acetone		ST	Low boiling point solvent
Acetic Acid	80%	PV/HV/KF	Acetate & vinyl acetate
	Concentrate (75°C/24°C)	KP	Photography, reagent, medicine
Acetic Anhydride		ST	
Agricultural Chemicals		ST	
Aluminum Chloride		PE/BH/CH/KE	Leather tanning
Aluminum Hydroxide		PE/BH/CH/KE	Aluminum salts; reinforcing pigment for medical rubber
Aluminum Sulfate		PE/BH/CH/KE	Papermaking, pigments, chemicals for ceramics, clay precipitation chemical
Amine		ST	Medical products, dye intermediate products, rubber products, surfactant
Ammonia Water	10%	PE/BH/CH/KE	Refrigerant, local stimulant, ammonia soap
Ammonium Acetate		PE/BH/CH/KE	Medical raw materials, organic synthesis, dye retarding agent
Ammonium Carbonate		PE/BH/CH/KE	Butter, smelling salt, leavening agent, cough syrup ingredient
Ammonium Chloride		PE/BH/CH/KE	Fertilizers, plating, dye, tanning, photography, cement
Ammonium Oxalate		PE/BH/CH/KE	
Ammonium sulfate		PE/BH/CH/KE	Single manure, compound fertilizer, artificial silk industry, cellophane industry, raw materials for ammonia compound
Aniline		ST	Dye, intermediate product, medical products, disinfectant, paint, varnish
Beer		PE/BH/CH/KE	
Benzene		ST	Dye as a synthesizing material, synthetic rubber, synthetic detergent, paint
Blood		ST	
Boric Acid		PE/BH/CH/KE	Glass, medicine, enamel, fire-retarding agent
Butyric Acid		KP	Fragrance, butter, melon, candy, cream
Calcium Hypochlorite		CL/CA/CN/CD	Pulp, fiber, decoloration of oils & fats; sterilization of swimming pools & wells
		PV/HV for NCS-52 model	
Carbolic Acid (Phenol)		ST	Disinfectant for dentistry, picric acid, salicylic acid, synthetic perfume
Chloroform		ST	Medicine (anesthetic, sterilization), solvent, fluoro-resin, blood preservative
Chromic Acid Anhydride (Chromium Trioxide)		KP	Catalyst for synthesizing & chrome plating
Citric Acid		PE/BH/CH/KE	Soft drinks, pharmacy, medicine, flavor enhancer essence
Cresol	(75°F/24°C)	PE/BH/CH/KE	Disinfectant, dressing agent, varnish, agricultural chemicals, solvent
Cyclohexane		ST	Organic solvent for adipic acid; stripping agents for paints & varnishes
Dextrose		ST	Medicines, sweeteners
Developer		PE/BH/CH/KE	Photographic development
Ethyl Acetate		ST	Paint, printing ink, solvent
Ethyl Alcohol		PV/HV/KF	Drinks, cosmetics, varnish, ink, antiseptic; washing agent
Ethyl Ether		ST	Organic solvent, analytical agent
Ethylene Glycol		ST	Raw materials for polyester fiber; paste for electrolytic capacitors; solvent
Ethylene Trichloride (Trichloro Ethylene)		KP	Washing solvent for defatting; manufacturing of chlorofluorocarbon gas; refrigerant, insecticide
Ferric Chloride		PE/BH/CH/KE	Nameplates, photomechanical process, condensation/precipitation agent & catalyst
Ferric Sulfate		PE/BH/CH/KE	Factory wastewater treatment chemicals; condensation & precipitation agent for dyestuffs; waste water
Ferrous Chloride		PE/BH/CH/KE	Dye, metallurgy, preparation of medicines
Ferrous Sulfate		PE/BH/CH/KE	Dye, metallurgy, adjusting agent, manufacturing ferrous chloride
Fixer		PE/BH/CH/KE	Photographic development

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## Chemical Compatibility Table (continued)

Chemical		Liquid-end Model(s)	Application(s)
Formic Acid	10%	PE/BH/CH/KE	Dye assistant, leather tanning, rubber coagulant, vitamins, perfume, solvent
	100%	PE/BH/CH/KE	
Fruit Juice		ST	
Fruit Sugar		ST	Sweetener, wetting agent, nutritive
Galvanizing Liquid		PE/BH/CH/KE	Various chemicals for the plating industry
Gasoline		ST	Automobile fuel, aviation fuel, solvent
Glycerin		PE/BH/CH/KE	Cosmetics, foodstuffs, perfume, antifreeze, medicine, soaps
Grape Acid		PE/BH/CH/KE	
Gypsum (Calcium Sulfate)		PE/BH/CH/KE	Sodium dehydrate, cement setting adjusting agent, chemical materials
Hydrazine	2%	PE/BH/CH/KE	Boiler chemicals
Hydrochloric Acid	10%	PE/BH/CH/KE	Sodium glutamate, medicines, intermediate products, dyes, perfume
	30%	PV/HV/KF	
	Concentrate	PV/HV/KF	
Hydrogen Peroxide	30%	PV/HV/KF	Bleaching agent, medicine, brewing, rocket fuel
	90%	KP	
Ink		ST	
Jet Fuel		ST	Fuel engine
Kerosene		ST	Kerosene
Ketone		ST	Cellulose nitrate, various plastics & solvents for lacquer
Lactic Acid		PE/BH/CH/KE	Brewing industry, for beverages, leather industry & textile finishing agent
Magnesium Carbonate		PE/BH/CH/KE	Rubber reinforcing agent, fire-proof paint, tooth powder, medicine; fire resistance & heat retaining
Magnesium Hydroxide		PE/BH/CH/KE	
Maleic Acid		PE/BH/CH/KE	Preventing tobaccos from budding; preventing onions & potatoes from budding while held in storage
Malic Acid		ST	Sourness additives for soft drinks & cold confectionery
Methyl Salicylate		ST	Oral agent; additive for ointment & general perfume
Methyl Alcohol		PV/HV/KF	Raw materials of formalin, methyl methacrylate
Milk		ST	
Mineral Oil (Gasoline)		ST	Petro-chemistry
Naphtha (Volatile oil)		ST	Ethylene raw materials, petrochemical raw materials
Nicotine		PE/BH/CH/KE	
Nitric Acid	10% (73°F/23°C)	PV/HV/KF	Organic formation, nitro compound, gunpowder, dye, perfume, metallurgy
	30%	KP	Dye, perfume, metallurgy
	100% (77°F/25°C)	KP	
Nitrobenzene		PE/BH/CH/KE	Fortifying agent; color former for meat; medicine, livestock forage
Oleic Acid		ST	Raw materials for soaps, paint, leather & cutting oil
Oxalic Acid		PE/BH/CH/KE	Manufacturing & analytical test of glutinous starch syrup; removing rust & stain
Perclene - Perchloroethylene		ST	Dry cleaning solvent; raw wool washing soap
Phosphoric Acid	10%	PE/BH/CH/KE	Plating, medicines, dye; oils & fats
	Concentrate	PE/BH/CH/KE	
Phosphorus Pentoxide		PE/BH/CH/KE	Metal surface treatment, medicine, agricultural chemicals, oils & fats
Potassium Chromate		PE/BH/CH/KE	Match head material, oxidizing agent, reagent, dye, preservative, printing ink
Potassium Ferrocyanide		PE/BH/CH/KE	Medicine (anesthetic, sterilization), solvent, fluoro-resin & blood preservative
Potassium Permanganate		PE/BH/CH/KE	Oxidizing agent, reagent, medicine & catalyst

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## Chemical Compatibility Table (continued)

Chemical		Liquid-end Model(s)	Application(s)
Pulp Liquid		PE/BH/CH/KE	
Red Prussiate (Potassium Ferricyanide)		ST	Blueprint, blue pigments, dyeing wool, leather
Salicylic Acid		PE/BH/CH/KE	Azo dye, preservative, perfume, medicine
Sea Water		PE/BH/CH/KE	
Silicone Oil		PE/BH/CH/KE	Automobile wax, paint, rubber, lubricant oil, inducing oil
Silver Nitrate		PE/BH/CH/KE	Manufacturing silver salt; photograph photosensitizer
Slaked Lime (Calcium hydroxide)		PE/BH/CH/KE	Fertilizer, bleaching powder, briquettes, pulp, papermaking, agricultural chemicals
Soapsuds		PE/BH/CH/KE	Washing agent, emulsifying agent, cosmetics
Sodium Acetate		PE/BH/CH/KE	Paint, medicine, color fixing agent, photography
Sodium Benzoate		PE/BH/CH/KE	Food preservatives, medicine, vinyl polymerization promoter
Sodium Bicarbonate		PE/BH/CH/KE	Reagent
Sodium Bichromate		PE/BH/CH/KE	Chrome compounds, oxidizing agent, medicine, gunpowder
Sodium Carbonate		PE/BH/CH/KE	Manufacturing glass products, sodium bicarbonate, water glass
Sodium Chlorate		PE/BH/CH/KE	Herbicide, reagent, oxidizer, matches & fireworks
Sodium Chloride		PE/BH/CH/KE	Table salt
Sodium Cyanide		PE/BH/CH/KE	Refining of gold by cyanide, pigments, plating, photographic chemicals, medicine
Sodium Ferrocyanide		PE/BH/CH/KE	Raw materials for pigment products, dyeing silk, dye assistant, photography, blueprint
Sodium Hydroxide	40%	PE/BH/CH/KE	Dye, perfume, medicine, soap, artificial silk, cellophane, manufacturing of fibers
Sodium Hypochlorite		CL/CA/CN/CD	Oxidizing agent; disinfectant for swimming pools, wells & other applications
Sodium Nitrite		PE/BH/CH/KE	Potassium salts, diazotization of azo dye, decoloration, analytical agents
Sodium Phosphate		PE/BH/CH/KE	Boiler chemicals, washing agent, sugar refining, photography
Sodium Sulfide		PE/BH/CH/KE	Viscose artificial silk; desulfurization of staple fiber; manufacturing sulfurized dye
Sodium Sulfite		PE/BH/CH/KE	Dechlorination, dye intermediate products, photography development
Sodium Thiosulfate		PE/BH/CH/KE	Photographic fixing agent; dechlorination agent; decoloration of oils & fats
Solution of Salt		PE/BH/CH/KE	
Stearic Acid		PE/BH/CH/KE	For rubber industry, candles, crayons, cosmetics, PVC plasticizer
Sulfuric Acid	10%	PE/BH/CH/KE	Fertilizer industry, textile and inorganic chemical industry
	40%	PV/HV/KF	
	Concentrate	KP	
Tannic Acid		PE/BH/CH/KE	Dye, pigments, leather & tanning
Tartaric Acid		PE/BH/CH/KE	Soft drinks, confectionery, synthetic wine, photography, plating
Toluene		ST	Dye, perfume, gunpowder, organic pigments, synthetic cresol solution, sweetener
Urea		PE/BH/CH/KE	Single manure as a fertilizer; paints, adhesives
Whiskey		PV/HV/KF	Drinks (wines & spirits)
Wine		ST	
Xylene		ST	Solvent, synthetic materials, isomeric separation

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