OleumTech

ULTRASONIC SENSOR - CHEMICAL COMPATIBILITY CHART

Ratings - Chemical Effect

A = Excellent

B = Good - Minor Effect, slight corrosion or discoloration.

C = Fair - Moderate Effect, not recommended for continuous use. Softening, loss of strength, swelling may occur.

D = Severe Effect, not recommended for ANY use.

N/A = Information is not available for aluminum, PVC,or both.

COMPATIBILITY RATING IS BASED ON SENSOR COMPONENTS (ALUMINUM AND PVC)

CHEMICAL	COMPATIBILITY	CHEMICAL	COMPATIBILITY
Acetaldehyde	D	Alums	N/A
Acetamide	D	Amines	D
Acetate Solvent	D	Ammonia 10%	B
Acetic Acid	D	Ammonia Nitrate	C
Acetic Acid 20%	D	Ammonia, anhydrous	A
Acetic Acid 80%	C	Ammonia, liquid	A
Acetic Acid, Glacial	D	Ammonium Acetate	A
Acetic Anhydride	D	Ammonium Bifluoride	B
Acetone	D	Ammonium Carbonate	B
Acetyl Bromide	D	Ammonium Caseinate	N/A
Acetyl Chloride (dry)	D	Ammonium Chloride	B
Acetylene	A	Ammonium Hydroxide	B
Acrylonitrile	B	Ammonium Nitrate	B
Adipic Acid	A	Ammonium Oxalate	N/A
Alcohols: Amyl	B	Ammonium Persulfate	D
Alcohols: Benzyl	D	Ammonium Phosphate, Dibasic	B
Alcohols: Butyl	B	Ammonium Phosphate, Monobasic	B
Alcohols: Diacetone	B	Ammonium Phosphate, Tribasic	B
Alcohols: Ethyl	C	Ammonium Sulfate	A
Alcohols: Hexyl	A	Ammonium Sulfite	D
Alcohols: Isobutyl	B	Ammonium Thiosulfate	N/A
Alcohols: Isopropyl	B	Amyl Acetate	D
Alcohols: Methyl	A	Amyl Alcohol	B
Alcohols: Octyl	N/A	Amyl Chloride	D
Alcohols: Propyl	A	Aniline	C
Aluminum Chloride	D	Aniline Hydrochloride	D
Aluminum Chloride 20%	D	Antifreeze	A
Aluminum Fluoride	B	Antimony Trichloride	D
Aluminum Hydroxide	B	Aqua Regia (80% HCl, 20% HNO3)	D
Aluminum Nitrate	D	Arochlor 1248	N/A
Aluminum Potassium Sulfate 10%	C	Aromatic Hydrocarbons	D
Aluminum Potassium Sulfate 100%	C	Arsenic Acid	D
Aluminum Sulfate	D	Arsenic Salts	N/A

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CHEMICAL	COMPATIBILITY	CHEMICAL	COMPATIBILITY
Asphalt	A	Cane Juice	B
Barium Carbonate	D	Carbolic Acid (Phenol)	D
Barium Chloride	D	Carbon Bisulfide	D
Barium Cyanide	D	Carbon Dioxide (dry)	B
Barium Hydroxide	D	Carbon Dioxide (wet)	A
Barium Nitrate	B	Carbon Disulfide	D
Barium Sulfate	B	Carbon Monoxide	A
Barium Sulfide	D	Carbon Tetrachloride	D
Beer	A	Carbon Tetrachloride (dry)	D
Beet Sugar Liquids	A	Carbon Tetrachloride (wet)	D
Benzaldehyde	D	Carbonated Water	A
Benzene	C	Carbonic Acid	B
Benzene Sulfonic Acid	D	Catsup	D
Benzoic Acid	B	Chloric Acid	D
Benzol	N/A	Chlorinated Glue	N/A
Benzonitrile	N/A	Chlorine (dry)	D
Benzyl Chloride	D	Chlorine Water	D
Bleaching Liquors	N/A	Chlorine, Anhydrous Liquid	D
Borax (Sodium Borate)	B	Chloroacetic Acid	D
Boric Acid	D	Chlorobenzene (Mono)	D
Brewery Slop	N/A	Chlorobromomethane	D
Bromine	D	Chloroform	D
Butadiene	C	Chlorosulfonic Acid	D
Butane	C	Chocolate Syrup	N/A
Butanol (Butyl Alcohol)	C	Chromic Acid 10%	D
Butter	N/A	Chromic Acid 30%	D
Buttermilk	A	Chromic Acid 5%	C
Butyl Amine	D	Chromic Acid 50%	D
Butyl Ether	A	Chromium Salts	N/A
Butyl Phthalate	N/A	Cider	B
Butylacetate	D	Citric Acid	C
Butylene	A	Citric Oils	N/A
Butyric Acid	B	Clorox (Bleach)	A
Calcium Bisulfate	N/A	Coffee	N/A
Calcium Bisulfide	C	Copper Chloride	N/A
Calcium Bisulfite	D	Copper Cyanide	D
Calcium Carbonate	D	Copper Fluoborate	N/A
Calcium Chlorate	N/A	Copper Nitrate	D
Calcium Chloride	D	Copper Sulfate >5%	D
Calcium Hydroxide	C	Copper Sulfate 5%	D
Calcium Hypochlorite	D	Cream	N/A
Calcium Nitrate	B	Cresols	D
Calcium Oxide	C	Cresylic Acid	D
Calcium Sulfate	C	Cupric Acid	D
Calgon	N/A	Cyanic Acid	N/A

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CHEMICAL	COMPATIBILITY	CHEMICAL	COMPATIBILITY
Cyclohexane	D	Freon 12	B
Cyclohexanone	D	Freon 22	D
Detergents	B	Freon TF	D
Diacetone Alcohol	D	Freonr 11	D
Dichlorobenzene	D	Fruit Juice	A
Dichloroethane	D	Fuel Oils	C
Diesel Fuel	A	Furan Resin	A
Diethyl Ether	D	Furfural	D
Diethylamine	D	Gallic Acid	D
Diethylene Glycol	C	Gasoline (high-aromatic)	D
Dimethyl Aniline	D	Gasoline, leaded, ref.	B
Dimethyl Formamide	D	Gasoline, unleaded	C
Diphenyl	N/A	Gelatin	B
Diphenyl Oxide	D	Glucose	A
Dyes	B	Glue, P.V.A.	C
Epsom Salts (Magnesium Sulfate)	B	Glycerin	A
Ethane	N/A	Glycolic Acid	N/A
Ethanol	C	Gold Monocyanide	N/A
Ethanolamine	D	Grape Juice	N/A
Ether	D	Grease	N/A
Ethyl Acetate	D	Heptane	C
Ethyl Benzoate	D	Hexane	B
Ethyl Chloride	D	Honey	A
Ethyl Ether	D	Hydraulic Oil (Petro)	A
Ethyl Sulfate	N/A	Hydraulic Oil (Synthetic)	A
Ethylene Bromide	D	Hydrazine	N/A
Ethylene Chloride	D	Hydrobromic Acid 100%	D
Ethylene Chlorohydrin	D	Hydrobromic Acid 20%	D
Ethylene Diamine	D	Hydrochloric Acid 100%	D
Ethylene Dichloride	D	Hydrochloric Acid 20%	D
Ethylene Glycol	A	Hydrochloric Acid 37%	D
Ethylene Oxide	D	Hydrochloric Acid, Dry Gas	D
Fatty Acids	A	Hydrocyanic Acid	B
Ferric Chloride	D	Hydrocyanic Acid (Gas 10%)	N/A
Ferric Nitrate	D	Hydrofluoric Acid 100%	D
Ferric Sulfate	D	Hydrofluoric Acid 20%	D
Ferrous Chloride	D	Hydrofluoric Acid 50%	D
Ferrous Sulfate	B	Hydrofluoric Acid 75%	D
Fluoboric Acid	D	Hydrofluosilicic Acid 100%	D
Fluorine	D	Hydrofluosilicic Acid 20%	D
Fluosilicic Acid	D	Hydrogen Gas	A
Formaldehyde 100%	A	Hydrogen Peroxide 10%	A
Formaldehyde 40%	B	Hydrogen Peroxide 100%	A
Formic Acid	A	Hydrogen Peroxide 30%	A
Freon 113	N/A	Hydrogen Peroxide 50%	A

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CHEMICAL	COMPATIBILITY	CHEMICAL	COMPATIBILITY
Hydrogen Sulfide (aqua)	B	Melamine	D
Hydrogen Sulfide (dry)	B	Mercuric Chloride (dilute)	D
Hydroquinone	B	Mercuric Cyanide	D
Hydroxyacetic Acid 70%	D	Mercurous Nitrate	D
Ink	N/A	Mercury	D
Iodine	A	Methane	B
Iodine (in alcohol)	B	Methanol (Methyl Alcohol)	A
Iodoform	N/A	Methyl Acetate	D
Isooctane	A	Methyl Acetone	D
Isopropyl Acetate	D	Methyl Acrylate	N/A
Isopropyl Ether	B	Methyl Alcohol 10%	A
Isotane	D	Methyl Bromide	D
Jet Fuel (JP3, JP4, JP5)	C	Methyl Butyl Ketone	N/A
Kerosene	A	Methyl Cellosolve	D
Ketones	D	Methyl Chloride	D
Lacquer Thinners	D	Methyl Dichloride	N/A
Lacquers	D	Methyl Ethyl Ketone	D
Lactic Acid	B	Methyl Ethyl Ketone Peroxide	N/A
Lard	A	Methyl Isobutyl Ketone	D
Latex	N/A	Methyl Isopropyl Ketone	D
Lead Acetate	D	Methyl Methacrylate	N/A
Lead Nitrate	D	Methylamine	D
Lead Sulfamate	C	Methylene Chloride	D
Ligroin	D	Milk	A
Lime	B	Mineral Spirits	A
Linoleic Acid	A	Molasses	A
Lithium Chloride	D	Monochloroacetic acid	D
Lithium Hydroxide	D	Monoethanolamine	D
Lubricants	B	Morpholine	N/A
Lye: Ca(OH)2 Calcium Hydroxide	C	Motor oil	B
Lye: KOH Potassium Hydroxide	D	Mustard	B
Lye: NaOH Sodium Hydroxide	D	Naphtha	A
Magnesium Bisulfate	D	Naphthalene	B
Magnesium Carbonate	B	Natural Gas	A
Magnesium Chloride	D	Nickel Chloride	D
Magnesium Hydroxide	C	Nickel Nitrate	D
Magnesium Nitrate	B	Nickel Sulfate	D
Magnesium Oxide	N/A	Nitrating Acid (<15% HNO3)	D
Magnesium Sulfate (Epsom Salts)	B	Nitrating Acid (>15% H2SO4)	D
Maleic Acid	B	Nitrating Acid (S1% Acid)	D
Maleic Anhydride	N/A	Nitrating Acid (S15% H2SO4)	D
Malic Acid	B	Nitric Acid (20%)	D
Manganese Sulfate	C	Nitric Acid (50%)	D
Mash	N/A	Nitric Acid (5-10%)	A
Mayonnaise	D	Nitric Acid (Concentrated)	D

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CHEMICAL	COMPATIBILITY	CHEMICAL	COMPATIBILITY
Nitrobenzene	D	Oils: Turbine	A
Nitrogen Fertilizer	N/A	Oleic Acid	C
Nitromethane	B	Oleum 100%	D
Nitrous Acid	D	Oleum 25%	D
Nitrous Oxide	B	Oxalic Acid (cold)	B
Oils: Aniline	D	Ozone	B
Oils: Anise	N/A	Palmitic Acid	B
Oils: Bay	N/A	Paraffin	B
Oils: Bone	N/A	Pentane	B
Oils: Castor	A	Perchloric Acid	D
Oils: Cinnamon	D	Perchloroethylene	C
Oils: Citric	B	Petrolatum	N/A
Oils: Clove	N/A	Petroleum	D
Oils: Coconut	A	Phenol (10%)	C
Oils: Cod Liver	A	Phenol (Carbolic Acid)	D
Oils: Corn	B	Phosphoric Acid (>40%)	C
Oils: Cottonseed	B	Phosphoric Acid (crude)	C
Oils: Creosote	C	Phosphoric Acid (molten)	D
Oils: Diesel Fuel (20, 30, 40, 50)	B	Phosphoric Acid (S40%)	C
Oils: Fuel (1, 2, 3, 5A, 5B, 6)	C	Phosphoric Acid Anhydride	N/A
Oils: Ginger	N/A	Phosphorus	B
Oils: Hydraulic Oil (Petro)	A	Phosphorus Trichloride	D
Oils: Hydraulic Oil (Synthetic)	A	Photographic Developer	N/A
Oils: Lemon	N/A	Photographic Solutions	N/A
Oils: Linseed	B	Phthalic Acid	N/A
Oils: Mineral	B	Phthalic Anhydride	D
Oils: Olive	C	Picric Acid	D
Oils: Orange	C	Plating Solutions, Antimony Plating 130°F	A
Oils: Palm	N/A	Plating Solutions, Arsenic Plating 110°F	A
Oils: Peanut	A	Plating Solutions, Brass Plating: High-Speed Brass Bath 110°F	A
Oils: Peppermint	D	Plating Solutions, Brass Plating: Regular Brass Bath 100°F	A
Oils: Pine	D	Plating Solutions, Bronze Plating: Cu-Cd Bronze Bath R.T.	A
Oils: Rapeseed	N/A	Plating Solutions, Bronze Plating: Cu-Sn Bronze Bath 160°F	D
Oils: Rosin	C	Plating Solutions, Bronze Plating: Cu-Zn Bronze Bath 100°F	A
Oils: Sesame Seed	N/A	Plating Solutions, Cadmium Plating: Cyanide Bath 90°F	A
Oils: Silicone	A	Plating Solutions, Cadmium Plating: Fluoborate Bath 100°F	A
Oils: Soybean	A	Plating Solutions, Chromium Plating: Barrel Chrome Bath 95°F	A
Oils: Sperm (whale)	N/A	Plating Solutions, Chromium Plating: Black Chrome Bath 115°F	A
Oils: Tanning	N/A	Plating Solutions, Chromium Plating: Chromic-Sulfuric Bath 130°F	A
Oils: Transformer	B	Plating Solutions, Chromium Plating: Fluoride Bath 130°F	A

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CHEMICAL	COMPATIBILITY	CHEMICAL	COMPATIBILITY
Plating Solutions, Chromium Plating: Fluosilicate Bath 95°F	A	Potassium Dichromate	B
Plating Solutions, Copper Plating (Acid): Copper Fluoborate Bath 120°F	A	Potassium Ferricyanide	B
Plating Solutions, Copper Plating (Acid): Copper Sulfate Bath R.T.	A	Potassium Ferrocyanide	B
Plating Solutions, Copper Plating (Cyanide): Copper Strike Bath 120°F	N/A	Potassium Hydroxide (Caustic Potash)	D
Plating Solutions, Copper Plating (Cyanide): High-Speed Bath 180°F	D	Potassium Hypochlorite	D
Plating Solutions, Copper Plating (Cyanide): Rochelle Salt Bath 150°F	D	Potassium Iodide	B
Plating Solutions, Copper Plating (Misc): Copper (Electroless)	A	Potassium Nitrate	B
Plating Solutions, Copper Plating (Misc): Copper Pyrophosphate	A	Potassium Oxalate	N/A
Plating Solutions, Gold Plating: Acid 75°F	N/A	Potassium Permanganate	B
Plating Solutions, Gold Plating: Cyanide 150°F	D	Potassium Sulfate	C
Plating Solutions, Gold Plating: Neutral 75°F	N/A	Potassium Sulfide	D
Plating Solutions, Indium Sulfamate Plating R.T.	N/A	Propane (liquefied)	A
Plating Solutions, Iron Plating: Ferrous Am Sulfate Bath 150°F	D	Propylene	B
Plating Solutions, Iron Plating: Ferrous Chloride Bath 190°F	D	Propylene Glycol	C
Plating Solutions, Iron Plating: Ferrous Sulfate Bath 150°F	D	Pyridine	D
Plating Solutions, Iron Plating: Fluoborate Bath 145°F	D	Pyrogallic Acid	B
Plating Solutions, Iron Plating: Sulfamate 140°F	N/A	Resorcinal	N/A
Plating Solutions, Iron Plating: Sulfate-Chloride Bath 160°F	D	Rosins	C
Plating Solutions, Lead Fluoborate Plating	N/A	Rum	N/A
Plating Solutions, Nickel Plating: Electroless 200°F	D	Rust Inhibitors	N/A
Plating Solutions, Nickel Plating: Fluoborate 100-170°F	N/A	Salad Dressings	N/A
Plating Solutions, Nickel Plating: High-Chloride 130-160°F	D	Salicylic Acid	B
Plating Solutions, Nickel Plating: Sulfamate 100-140°F	N/A	Salt Brine (NaCl saturated)	B
Plating Solutions, Nickel Plating: Watts Type 115-160°F	D	Sea Water	B
Plating Solutions, Rhodium Plating 120°F	N/A	Shellac (Bleached)	N/A
Plating Solutions, Silver Plating 80-120°F	N/A	Shellac (Orange)	N/A
Plating Solutions, Tin-Fluoborate Plating 100°F	N/A	Silicone	A
Plating Solutions, Tin-Lead Plating 100°F	N/A	Silver Bromide	D
Plating Solutions, Zinc Plating: Acid Chloride 140°F	N/A	Silver Nitrate	D
Plating Solutions, Zinc Plating: Acid Fluoborate Bath R.T.	N/A	Soap Solutions	C
Plating Solutions, Zinc Plating: Acid Sulfate Bath 150°F	D	Soda Ash (see Sodium Carbonate)	D
Plating Solutions, Zinc Plating: Alkaline Cyanide Bath R.T.	N/A	Sodium Acetate	B
Potash (Potassium Carbonate)	D	Sodium Aluminate	N/A
Potassium Bicarbonate	D	Sodium Benzoate	B
Potassium Bromide	C	Sulfur Chloride	D
Potassium Chlorate	B	Sulfur Dioxide	B
Potassium Chloride	D	Sulfur Dioxide (dry)	B
Potassium Chromate	B	Sodium Bicarbonate	D
Potassium Cyanide Solutions	D	Sodium Bisulfate	D

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CHEMICAL	COMPATIBILITY	CHEMICAL	COMPATIBILITY
Sodium Bisulfite	D	Sulfuric Acid (75-100%)	D
Sodium Borate (Borax)	C	Sulfuric Acid (cold concentrated)	D
Sodium Bromide	D	Sulfuric Acid (hot concentrated)	D
Sodium Carbonate	D	Sulfurous Acid	B
Sodium Chlorate	C	Sulfuryl Chloride	N/A
Sodium Chloride	C	Tallow	N/A
Sodium Chromate	N/A	Tannic Acid	C
Sodium Cyanide	D	Tanning Liquors	A
Sodium Ferrocyanide	A	Tartaric Acid	B
Sodium Fluoride	B	Tetrachloroethane	C
Sodium Hydrosulfite	C	Tetrachloroethylene	D
Sodium Hydroxide (20%)	D	Tetrahydrofuran	D
Sodium Hydroxide (50%)	D	Tin Salts	D
Sodium Hydroxide (80%)	D	Toluene (Toluol)	D
Sodium Hypochlorite (<20%)	D	Tomato Juice	A
Sodium Hypochlorite (100%)	D	Trichloroacetic Acid	D
Sodium Hyposulfate	D	Trichloroethane	D
Sodium Metaphosphate	C	Trichloroethylene	D
Sodium Metasilicate	D	Trichloropropane	D
Sodium Nitrate	B	Tricresylphosphate	D
Sodium Perborate	C	Triethylamine	N/A
Sodium Peroxide	C	Trisodium Phosphate	D
Sodium Polyphosphate	D	Turpentine	D
Sodium Silicate	A	Urea	D
Sodium Sulfate	A	Uric Acid	D
Sodium Sulfide	D	Urine	B
Sodium Sulfite	C	Varnish	D
Sodium Tetraborate	C	Vegetable Juice	D
Sodium Thiosulfate (hypo)	A	Vinegar	D
Sorghum	N/A	Vinyl Acetate	D
Soy Sauce	N/A	Vinyl Chloride	D
Stannic Chloride	D	Water, Acid, Mine	D
Stannic Fluoborate	N/A	Water, Deionized	A
Stannous Chloride	D	Water, Distilled	A
Starch	A	Water, Fresh	B
Stearic Acid	B	Water, Salt	B
Stoddard Solvent	C	Weed Killers	D
Styrene	D	Whey	N/A
Sugar (Liquids)	N/A	Whiskey & Wines	C
Sulfate (Liquors)	D	White Liquor (Pulp Mill)	B
Sulfur Hexafluoride	N/A	White Water (Paper Mill)	N/A
Sulfur Trioxide	A	Xylene	D
Sulfur Trioxide (dry)	A	Zinc Chloride	D
Sulfuric Acid (<10%)	D	Zinc Hydrosulfite	D
Sulfuric Acid (10-75%)	D	Zinc Sulfate	D

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