Pneuline Supply, Inc. DATA SHEET

MPV-4B-AFS020

Chemical Compatibility Information

Inline diagphram type check valves, all types of filters, self-sealing check valves, ball type check valves, and spring loaded check valves are all products that can, and typically do, contain multiple types of different materials. The chemical compatibility of the whole product is limited to those chemicals which are compatible with all of the materials present in the product. Pneuline has compiled an extensive list of various chemical compatibility ratings for the different materials that we use to manufacture our products, and have provided a list of chemical compatibility ratings for each specific product based on the materials used in that product.

The rating system is as follows:

- **A = Excellent** -- *The product is fully compatible with the chemical and is recommended for continuous use within the normal operating parameters of the product (temprature, pressure, etc).*
- **B = Adequate** -- *The chemical causes a minor effect to the product, slight corrosion or discoloration, minor loss in performance or slightly shortened operating lifespan.*
- **C = Not Ideal** -- *The chemical has a pronounced effect on the product and will degrade it. Material softening, swelling, loss of strength, corrosion, and discoloration may occur. Use only for limited timespans and replace often.*
- **D = Severe Effect** -- *The chemical has a severe adverse affect on the product and will likely destroy it. Not reccomended for use.*
- **N/A = No Data Available** -- *One or more of the materials in the product has an unknown compatibility with the chemical.*

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Chemical Substance	Rating
Acetaldehyde	D
Acetamide	A
Acetic Acid	D
Acetic Acid 20%	C
Acetic Acid 80%	D
Acetic Acid, Glacial	D
Acetic Anhydride	D
Acetone	D
Acetyl Chloride (dry)	D
Acetylene	N/A
Alcohols: Amyl	A
Alcohols: Butyl	A
Alcohols: Ethyl	A
Alcohols: Isopropyl	B
Alcohols: Methyl	A
Aluminum Chloride 20%	C
Aluminum Hydroxide	N/A
Aluminum Nitrate	N/A
Aluminum Potassium Sulfate 10%	C
Aluminum Potassium Sulfate 100%	C
Aluminum Sulfate	B
Amines	D
Ammonia 10%	D
Ammonia, anhydrous	D
Ammonia, liquid	D
Ammonium Chloride	N/A
Ammonium Hydroxide	C
Ammonium Phosphate, Dibasic	N/A
Ammonium Sulfate	N/A
Amyl Acetate	D
Amyl Alcohol	A
Aniline	C
Aqua Regia (80% HCl, 20% HNO3)	N/A
Arsenic Acid	D
Asphalt	B

Chemical Substance	Rating
Barium Carbonate	A
Barium Chloride	A
Barium Hydroxide	D
Barium Nitrate	B
Barium Sulfate	N/A
Beer	A
Benzaldehyde	D
Benzene	C
Benzoic Acid	B
Benzol	B
Bromine	D
Butadiene	A
Butane	C
Butanol (Butyl Alcohol)	A
Buttermilk	A
Butyl Amine	D
Butyl acetate	D
Butyric Acid	N/A
Calcium Bisulfite	D
Calcium Carbonate	A
Calcium Hydroxide	D
Calcium Hypochlorite	D
Calcium Nitrate	D
Calcium Sulfate	D
Carbolic Acid (Phenol)	D
Carbon Disulfide	A
Carbon Tetrachloride	B
Carbonic Acid	B
Chlorine (dry)	D
Chlorine Water	N/A
Chlorine, Anhydrous Liquid	N/A
Chloroacetic Acid	D
Chlorobenzene (Mono)	D
Chloroform	D
Chlorosulfonic Acid	D

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Chemical Substance	Rating
Chocolate Syrup	A
Chromic Acid 10%	D
Chromic Acid 30%	D
Chromic Acid 5%	D
Chromic Acid 50%	D
Chromic Acid 80%	D
Cider	A
Citric Acid	B
Copper Cyanide	A
Copper Nitrate	N/A
Copper Sulfate (more than 5%)	D
Copper Sulfate 5%	D
Cresols	N/A
Cresylic Acid	N/A
Cyclohexane	A
Cyclohexanone	D
Detergents	A
Dichloroethane	B
Diesel Fuel	A
Diethylamine	B
Diethylene Glycol	A
Dimethyl Aniline	D
Dimethyl Formamide	D
Epsom Salts (Magnesium Sulfate)	B
Ethanol	A
Ethyl Acetate	D
Ethyl Chloride	A
Ethylene Chloride	B
Ethylene Chlorohydrin	D
Ethylene Dichloride	C
Ethylene Glycol	B
Ethylene Oxide	D
Fatty Acids	N/A
Ferric Chloride	D
Ferric Nitrate	D

Chemical Substance	Rating
Ferric Sulfate	N/A
Ferrous Chloride	N/A
Ferrous Sulfate	D
Fluorine	N/A
Fluorosilicic Acid	N/A
Formaldehyde 100%	D
Formaldehyde 40%	D
Formic Acid	N/A
Fuel Oils	A
Furfural (Furfuraldehyde)	N/A
Gasoline (high-aromatic)	B
Gasoline, leaded, ref.	A
Gasoline, unleaded	A
Glucose	A
Glycerin	A
Heptane	C
Hexane	C
Honey	A
Hydrochloric Acid 100%	D
Hydrochloric Acid 20%	C
Hydrochloric Acid 37%	C
Hydrofluoric Acid 100%	N/A
Hydrofluoric Acid 20%	N/A
Hydrofluoric Acid 50%	N/A
Hydrofluoric Acid 75%	N/A
Hydrogen Peroxide 10%	D
Hydrogen Peroxide 100%	D
Hydrogen Peroxide 30%	D
Hydrogen Peroxide 50%	D
Hydrogen Sulfide (aqua)	C
Isopropyl Acetate	D
Isopropyl Ether	D
Jet Fuel (JP3, JP4, JP5)	B
Kerosene	A
Ketones	D

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Chemical Substance	Rating
Lacquer Thinners	D
Lacquers	D
Lactic Acid	B
Lard	A
Lead Sulfamate	A
Lubricants	B
Lye: Ca(OH)2 Calcium Hydroxide	D
Lye: KOH Potassium Hydroxide	C
Lye: NaOH Sodium Hydroxide	C
Magnesium Chloride	B
Magnesium Hydroxide	N/A
Magnesium Nitrate	A
Magnesium Sulfate (Epsom Salts)	B
Mercuric Chloride (dilute)	N/A
Mercury	N/A
Methanol (Methyl Alcohol)	A
Methyl Acetate	D
Methyl Alcohol 10%	A
Methyl Butyl Ketone	D
Methyl Cellosolve	D
Methyl Chloride	B
Methyl Ethyl Ketone	D
Methylene Chloride	B
Milk	A
Mineral Spirits	B
Motor oil	B
Mustard	C
Naphtha	A
Nickel Chloride	A
Nickel Nitrate	N/A
Nickel Sulfate	A
Nitric Acid (20%)	N/A
Nitric Acid (50%)	D
Nitric Acid (5-10%)	N/A
Nitric Acid (Concentrated)	D

Chemical Substance	Rating
Nitrobenzene	D
Nitromethane	D
Oils: Citric	A
Oils: Fuel Oil (1, 2, 3, 5A, 5B, 6)	D
Oils: Mineral	A
Oils: Olive	A
Oils: Pine	A
Ozone	C
Paraffin	A
Pentane	C
Perchloroethylene	B
Phenol (10%)	B
Phenol (Carbolic Acid)	D
Phosphoric Acid (more than 40%)	D
Phosphoric Acid (crude)	D
Phosphoric Acid (less than 40%)	D
Photographic Solutions	D
Picric Acid	B
Potassium Bromide	A
Potassium Chlorate	B
Potassium Chloride	A
Potassium Dichromate	A
Potassium Hydroxide (Caustic Potash)	C
Potassium Nitrate	A
Potassium Permanganate	A
Potassium Sulfate	B
Propane (liquefied)	B
Propylene Glycol	B
Pyridine	D
Salicylic Acid	D
Sea Water	N/A
Silicone	C
Silver Nitrate	A
Soap Solutions	A
Soda Ash (see Sodium Carbonate)	A

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Chemical Substance	Rating
Sodium Acetate	D
Sodium Bicarbonate	A
Sodium Bisulfate	B
Sodium Bisulfite	C
Sodium Carbonate	A
Sodium Chlorate	A
Sodium Chloride	N/A
Sodium Hydroxide (20%)	B
Sodium Hydroxide (50%)	C
Sodium Hydroxide (80%)	D
Sodium Hypochlorite (less than 20%)	D
Sodium Peroxide	D
Sodium Sulfate	B
Sodium Sulfide	B
Sodium Thiosulfate (hypo)	C
Stannic Chloride	C
Stearic Acid	N/A
Stoddard Solvent	A
Sulfur Dioxide (dry)	B
Sulfuric Acid (less than 10%)	D
Sulfuric Acid (10-75%)	D
Tannic Acid	B
Tetrachloroethylene	B
Tetrahydrofuran	D
Toluene (Toluol)	C
Tomato Juice	B
Trichloroethane	B
Turpentine	B
Urea	A
Vinegar	C
Water, Acid, Mine	A
Water, Distilled	B
Water, Fresh	A
Water, Salt	A
Whiskey and Wines	A

Chemical Substance	Rating
Xylene	A
Zinc Chloride	C
Zinc Sulfate	C

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Chemical Compatibility Disclaimer

The information in this chart has been compiled from several sources (listed below) and as such Pneuline makes no guarantee as to the accuracy or completeness of the information. This chart is ONLY to be used as a guide in selecting the appropriate product for a particular use case. A product's resistance to chemical exposure will vary based on a variety of factors including: temprature, exposure time, quantity, concentration, the purity of the chemicals involved, presense or absence of catalyzing agents, and pressure. Ratings listed in this chart apply for a limited exposure time (normally 48 hours) and as such Pneuline offers NO warranty (express or implied) that a particular product will perform adequately in a given environment.

Sources

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