

# HARMSCO®

## Chemical Compatibility Chart

### Guide To Reading Recommendations

- R** ▶ Recommended
- F** ▶ Fair - may be acceptable; testing strongly recommended
- N** ▶ Not recommended
- O** ▶ No data available

Harmsco, Inc. offers this chart for informational and specification purposes only. For best results on all products and chemicals it is recommended that you either consult with a Harmsco Technical Engineer or conduct independent application-specific testing.

### Typical Materials of Construction

#### Filter Cartridges

- ▶ Cartridge end caps are PVC or urethane
- ▶ Cartridge center tubes are ABS/PP/PVC
- ▶ Cartridge media is Polyester-Plus™

#### Filter Housings

- ▶ Stainless steel is 304
- ▶ Rim gaskets and top seals are EPDM
- ▶ O-rings are Buna-N
- ▶ Bottom seals are natural gum rubber
- ▶ Other seals available (e.g. Viton)

**Note:** This publication is to be used as a guide. The data within has been obtained from many sources and is considered to be accurate. Harmsco does not assume liability for the accuracy and/or completeness of this data. Changes to the data can be made without notification. Temperature, Pressure, Flow Rates, Differential Pressures, Chemical Combinations and other unknown factors can affect performance in unknown ways. **Limited Warranty:** Harmsco warrants their products to be free of material and workmanship defects. Determination of suitability of Harmsco products for uses and applications contemplated by Buyer shall be the sole responsibility of Buyer. The end user/installer/buyer shall be liable for the product's performance and suitability regarding their specific intended applications. End users should perform their own tests to determine suitability for each application.

Chemical	Buna-N	EPDM	Polyester	Plastisol/ PVC	304
Acetaldehyde	N	F	F	N	R
Acetamide	R	R	N	O	O
Acetic Acid 5%	R	R	R	R	R
Acetic Acid 50%	F	R	R	R	R
Acetic Acid 80%	F	F	R	R	R
Acetic Acid 100%	F	F	R	N	R
Acetic Amhydride	N	F	R	N	R
Acetone	N	R	R	N	R
Acetophenode	N	R	N	O	R
Acetyl Chloride	N	N	F	O	R
Acetylene	N	N	O	R	R
Acrylic Acid	O	O	R	O	R
Acrylonitrile	N	N	R	O	R
Adipic Acid	O	O	O	R	R
Air, Compressed	R	R	R	R	R
Aluminum Acetate	F	R	R	R	R
Aluminum Ammonium Sulfate	O	O	O	O	O
Aluminum Chloride 5%	R	R	R	R	R
Aluminum Fluoride 5%	R	R	R	R	F
Aluminum Hydroxide	R	O	R	R	R
Aluminum Nitrate	R	R	O	R	R
Aluminum Sulfate	R	R	R	R	R
Ammonia Gas (Dry)	R	N	R	R	R
Ammonium Bicarbonate	N	R	O	O	R
Ammonium Bromide 10%	R	F	O	O	R
Ammonium Carbonate 10%	N	R	F	R	R
Ammonium Chloride 10%	R	R	R	R	R
Ammonium Fluoride 10%	R	R	R	R	R
Ammonium Hydroxide 30%	R	R	R	R	R
Ammonium Nitrate 5%	R	R	R	R	R
Ammonium Phosphate	R	R	O	R	R
Ammonium Sulfate 5%	R	R	R	R	R
Ammonium Thiocyanate	R	R	R	R	R
Amyl Acetate	N	R	R	O	O
Amyl Alcohol	F	R	R	R	R
Aniline,	N	F	R	N	R
Aqua Regia	N	N	F	R	N
Arsenic Acid	R	R	O	R	R
Asphalt	F	N	O	O	R
Aviation fuel	R	N	R	O	R
Banana Oil (Amyl Acetate)	N	R	R	N	R
Barium Carbonate	R	R	R	R	R
Beer	R	R	R	R	R
Beet Sugar Liquors	R	R	R	R	R
Benzene	N	N	R	N	R
Bromine (Dry)	N	N	N	N	N
Bromine (ONet)	N	N	N	R	N
Butane	R	N	R	R	R
Butanoic Acid	O	O	O	O	R
Butyl Acetate	N	R	R	R	R
Butyl Alcohol	R	F	R	R	R
Butyl Cellosolve	R	F	O	O	R
Butyl Chloride	O	O	O	O	R
Butyric Acid	N	F	R	N	R
Calcium Chloride	R	R	R	R	F

Chemical	Buna-N	EPDM	Polyester	Plastisol/ PVC	304
Calcium Hydroxide 5%	R	R	R	R	R
Calcium Hypochlorite	R	R	R	R	N
Cane Sugar liquors	R	R	R	R	R
Carbolic Acid (Phenol)	N	F	N	R	R
Carbon Dioxide (Dry)	R	F	O	R	R
Carbon Disulfide	N	N	R	N	R
Carbon Tetrachloride	F	N	R	R	R
Carbonated Water	R	R	R	R	R
Carbonic Acid	F	R	O	R	R
Castor Oil	R	F	R	R	R
Caustic Potash	F	R	O	R	R
Caustic Soda	F	R	O	R	R
Cellosove	N	F	O	R	R
Chloracetic Acid	N	F	F	R	R
Chlorine Gas (Dry)	N	F	O	R	R
Chlorine Gas (Wet)	N	F	O	R	F
Chlorobenzene	N	N	R	N	R
Chloroform (Dry)	N	N	R	N	R
Chromic Acid	N	F	R	R	R
Cider	F	R	R	R	R
Citric Acid -	R	R	R	R	R
Cod Liver Oil	R	R	R	R	R
Coffee Extract	R	O	R	F	R
Cola Syrup	O	O	R	O	R
Copper Sulfate	R	R	R	R	R
Corn Oil	R	N	R	R	R
Cottonseed Oil	R	N	R	R	R
Cresol	O	N	N	O	O
Creosote	R	N	O	R	R
Cresylic Acid	N	N	R	R	R
Cyclohexane	R	N	R	N	R
Cyclohexamone	N	F	R	N	R
DDT Solution	O	O	O	O	F
Dextrose	R	R	R	R	R
Diacetone Alcohol	N	R	R	N	R
Dibutyl Phthalate	N	F	O	O	R
Dichloroethane	N	N	O	O	R
Dichloroethylene	O	O	O	O	R
Diesel Fuel	R	N	O	R	R
Diethanolamine	R	F	E	O	O
Diethylene GIYCI	R	R	R	O	R
Dimethyl Formamide	N	O	R	O	R
Diphenyl Oxide	N	N	O	O	R
Dowtherm	N	N	O	O	R
Epichlorohydrin	N	F	R	O	R
Ethanol	R	R	R	O	R
Ethanolamine	F	F	O	O	R
Ether	N	N	R	O	R
Ethyl Acetate	N	F	R	N	R
Ethyl Cellulose	F	F	O	O	R
Ethylene Diamine	R	R	O	O	R
Ethylene Glycol	R	R	R	R	R
Ethylene Oxide	N	N	O	N	R
Fatty Acids	R	F	R	R	R
Ferric Chloride 1 %	R	R	R	R	N

Chemical	Buna-N	EPDM	Polyester	Plastisol/ PVC	304
Ferric Chloride	R	R	R	R	N
Ferric Nitrate	R	R	R	R	R
Ferric Sulfate 5%	F	R	R	R	R
Ferrous Chloride	R	O	R	O	R
Fish Oils	R	O	R	R	R
Fluosilicic Acid	F	R	O	R	R
Formaldehyde 10%	R	F	R	R	R
Formalin 40%	N	F	O	R	R
Formic Acid (low con.)	F	R	R	R	F
Formic Acid (Cone.)	F	R	R	O	F
Freon 12	F	F	O	N	R
Freon 22	N	R	O	N	R
Fruit Juices	R	R	R	R	R
Fuel Oils	R	N	R	R	R
Furfural	N	F	O	N	R
Gas, Natural	R	N	R	R	R
Gasoline, Sour	R	N	O	R	R
Gasoline, Motor	R	N	O	R	R
Gasoline, Aviation	R	N	O	R	R
Gelatin	R	R	R	R	R
Glucose	R	R	R	R	R
Glycerine-Glycerol	R	R	R	R	R
Glycol	R	R	N	R	R
Glycol Monoether	R	R	O	R	R
Grease	R	N	R	R	R
Green Sulfate Liquor	F	R	O	O	R
Gum Arabic	O	R	O	O	O
Helium	R	R	R	O	R
Hexane	R	N	R	R	R
Honey	R	R	R	R	R
Hydraulic Oil, Petroleum Base	R	N	R	R	R
Hydraulic Oil, Phosphate Ester	N	R	R	R	O
Hydrazine	F	R	O	O	R
Hydrobromic Acid 10%	N	R	R	R	N
Hydrobromic Acid 50%	N	R	O	R	N
Hydrochloric Acid 5%	R	R	F	R	N
Hydrochloric Acid 30%	R	R	F	R	N
Hydrocyanic Acid 5%	F	R	O	R	R
Hydrocyanic Acid	F	R	O	R	R
Hydrofluoric Acid 10%	R	R	N	R	N
Hydrofluoric Acid 50%	O	O	O	O	N
Hydrogen Gas	R	R	O	R	R
Hydrogen Peroxide 5%	F	R	F	R	R
Hydrogen Peroxide 30%	N	F	F	R	R
Hydrogen Sulfide (Dry)	R	R	O	R	R
Hydrogen Sulfide (Wet)	N	R	O	R	F
Hydroquinone	N	N	R	R	R
Iodine	F	F	F	N	R
Isopropyl Acete	N	F	O	O	F
Isopropyl Alcohol	F	R	R	R	R
Kerosene	R	N	R	R	R
Ketchup	R	O	R	R	R
Lactic Acid	R	R	R	E	N
Lard Oil	R	F	R	R	R
Latex (Natural)	R	O	R	R	R

Chemical	Buna-N	EPDM	Polyester	Plastisol/ PVC	304
Lead Acetate	F	R	R	R	R
Lime-Sulfur	N	R	O	O	R
Linoleic Acid	F	N	O	R	R
Linseed Oil	R	N	R	R	R
Lithium Bromide	O	O	O	R	R
Lithium Carbonate	R	O	O	O	O
Lithium Chloride	R	N	R	R	R
Lithium Hydroxide	R	R	O	O	R
Lube Oil	R	N	R	R	R
Lye	F	R	R	R	R
Magnesium Chloride	R	R	R	R	R
Magesium Hydroxide	F	R	O	R	R
Magnesium Sulfate	R	R	O	R	R
Mayonnaise,	R	O	R	R	R
Melamine Resin)	R	O	O	O	N
Mercuric Chloride 10%	R	R	R	R	F
Mercurous Nitrate	F	R	O	R	R
Mercury	R		R	R	R
Methane	R	N	O	R	R
Methylene Chloride	N	N	R	N	R
Methyl Alcohol	R	R	R	R	R
Methyl Acetate	N	F	R	R	R
Methyl Cellosolve	N	F	O	N	F
Methyl Chloride	N	N	R	N	R
Methyl Ethyl Ketone (MEK)	N	R	R	N	R
Milk	R	R	R	R	R
Mineral Oil	R	N	R	R	R
Molassas	R	O	R	R	R
Monoethanolamine	N	R	O	O	R
Mustard	R	O	O	O	R
Naptha	F	N	R	R	R
Napthalene	N	N	R	N	R
Nickel Chloride	R	R	R	R	N
Nickel Sulfate	R	R	O	R	R
Nitric Acid 10%	N	F	F	R	R
Nitric Acid 20%	N	N	F	R	R
Nitric Acid 50%	N	N	F	R	R
Nitric Acid Fuming	N	N	N	N	F
Nitrobenzene 10%	N	N	R	N	R
Nitrobenzene	N	N	R	N	R
Nitrogen	R	R	R	R	R
Nitrous Oxide	F	O	O	R	R
Oil, Crude	F	N	R	R	R
Oleic Acid 5%	R	R	O	R	R
Oleum	N	N	O	N	R
Olive Oil	E	F	R	R	R
PAlc Acid 5%	F	R	F	R	R
Palm Oil	R	O	R	R	R
Pentane	R	N	O	R	R
Perchloroethylene (Dry)	F	N	R	R	R
Petroleum Ether	F	N	R	R	R
Petroleum Oil, Refined	R	N	R	R	R
Petroleum Oil, Sour	F	N	R	R	R
Phenol	N	F	F	R	R
Phenol Formaldehyde Resin	O	F	O	O	R

Chemical	Buna-N	EPDM	Polyester	Plastisol/ PVC	304
Phosphoric Acid 1 %	R	R	R	R	R
Phosphoric Acid 10%	R	R	R	R	R
Phosphoric Acid 50%	R	R	F	R	R
Phosphoric Acid 80%	R	R	F	R	R
Picric Acid	R	R	R	N	R
Pine Oil	R	N	R	R	R
Arsenic	R	R	0	R	R
Brass, Bronze, Cadium and Copper Cyanide	R	R	0	R	R
Cadium Fluoborate	R	R	0	R	R
Copper Cyanide	R	R	0	R	R
Gold Cyanide	R	R	0	N	R
Iron Chloride	N	R	0	N	R
Lead Alkali	R	R	0	R	R
Lead Fluoborate	R	R	0	R	R
Nickel Bright Chloride	R	R	0	R	R
Nickel Dull Fluoborate	0	R	0	N	R
Silver	R	R	0	R	R
TIn Acid	R	R	0	R	0
TIm Fluborate	R	R	0	R	R
Zinc Chloride	R	R	N	R	N
Zinc Cyanide	R	R	0	R	R
Zinc Fluoborate	0	R	0	N	R
Potassium Acetate 10%	F	R	0	0	R
Potassium Bisulfate 10%	0	0	R	0	R
Potassium Carbonate 10%	R	R	F	R	R
Potassium Chloride 5%	R	R	R	R	R
Potassium Chromate 10%	R	F	0	R	R
Potassium Cyanide 5%	R	R	0	R	R
Potassium Ferrocyanide 10%	F	R	0	R	R
Potassium Permanganate 5%	R	R	F	R	R
Potassium Sulfate 5%	R	R	R	R	R
Propane	R	N	R	R	R
Propionic Acid	0	R	R	R	R
Propylene Glycol	R	R	R	R	R
Propylene Oxide	N	R	0	0	0
Pyridene	N	F	R	0	R
Sea Water	R	R	R	R	N
Shellac	R	R	R	0	R
Silver Nitrate	F	R	F	R	R
Soda Ash	R	R	R	R	R
Sodium Acetate	F	R	R	R	R
Sodium Bicarbonate	R	R	R	R	R
Sodium Bisulfate	R	R	R	R	R
Sodium Bisulfite	R	R	R	0	R
Sodium Borate	R	R	R	R	R
Sodium Carbonate	R	R	R	R	R
Sodium Chlorate	R	0	0	R	R
Sodium Chloride 10%	R	R	R	R	F
Sodium Cyanid	R	R	R	R	R
Sodium Fluoride 5%	R	R	R	R	R
Sodium Hydroxide 5%	F	R	R	R	R
Sodium Hydroxide 20%	F	R	N	R	R
Sodium Hydroxide 40%	F	F	N	R	R
Sodium Hypochlorite 5%	F	R	F	R	R
Sodium Metaphosphate	R	R	0	R	R

Chemical	Buna-N	EPDM	Polyester	Plastisol/ PVC	304
Sodium Nitrate 5%	F	R	R	R	R
Sodium Perborate 1%	F	R	R	R	R
Sodium Peroxide	F	R	N	R	R
Sodium Phosphate	R	R	R	R	R
Sodium Polysulfide	O	O	O	O	R
Sodium Silicate	R	R	O	R	R
Sodium Sulfate	R	R	R	R	R
Sodium Sulfide	R	R	R	N	R
Sodium Thiocyanate	O	O	R	R	R
Sodium Thiosulfate	F	R	R	R	R
Soybean Oil	R	N	R	R	R
Stannic Chloride 5%	R	R	R	R	N
Stannous Chloride 5%	R	R	R	R	R
Starch	R	R	R	R	R
Steam	R	R	R	N	R
Stearates	R	R	R	R	R
Stearic Acid	F	F	O	R	R
Stoddard Solvent	R	N	R	N	F
Sucrose Solutions	R	R	O	R	R
Sulfate Liquors	F	F	O	R	F
Sulfur Dioxide (Dry)	N	R	O	R	R
Sulfur Trioxide (Dry)	N	F	O	R	R
Sulfuric Acid 5%	F	R	R	R	R
Sulfuric Acid 50%	N	N	R	R	F
Sulfuric Acid 96%	N	N	N	N	R
Sulfuric Acid Fuming	N	N	N	N	R
Sulfurous Acid	F	F	O	N	N
Tannic Acid 10%	R	R	R	R	R
Tartaric Acid	R	F	O	R	R
Tertrachloreteylene (Dry)	N	N	O	N	R
Tetrachloroethane	N	N	R	R	R
Tetrahydrofuran	N	F	O	N	R
Toluene	N	N	R	N	R
Transformer Oil	R	N	R	R	R
Trichloroethylene .(Dry)	N	N	R	N	R
Triethanolamine	F	F	R	N	R
Trisodium Phosphate	R	R	R	R	R
Tung Oil	R	N	R	R	R
Turpentine	R	N	R	R	R
Urea-Formaldehyde	O	O	O	O	O
Vanilla Extract	O	O	O	O	R
Varnish	F	N	O	O	R
Vegetable Oils	R	N	R	R	R
Vinegar	F	R	R	R	R
Water, Fresh	R	R	R	R	R
Water, Salt	R	R	R	R	N
Waxes	O	O	O	O	R
Whiskey	R	R	R	R	R
Wine	R	R	R	R	R
Xylene	N	N	R	N	R
Zinc Bromide	R	O	O	O	R
Zinc Cyanide	R	O	O	O	R
Zinc Sulfate	R	R	R	R	R

**Note: Specialty coated filter housings available for sea water, chlorides and other chemicals not compatible**