

Chemical COMPATIBILITY GUIDE

Chemical Compatibility Guide for GPI Flowmeters*

R = Recommended

N = Not Recommended

X = Unknown or Not Applicable

	Metals					Plastics								Journals, Shafts				O-Rings							
	Bronze	Aluminum	Brass	304 SS	316 SS	CD4MCu	PVC	PBT Polyester (Valox)	Nylon 6,6	Acetal (Delrin)	PPS (Ryton)	PVDF (Kynar)	Rulon 641	PEEK	Noryl™	Carbon - Graphite	Ceramic / Sapphire	Tungsten Carbide	Ferrite (MnZn)	Hastelloy-C	FKM/Fluorocarbon (Viton)	PTFE (Teflon)	EPDM	Buna-N (Nitrile)	Perfluoroelastomer (FFKM)
Acetic Acid	N	N	N	N	R	R	N	X	N	N	R	N	R	R	R	R	N	X	R	R	R	R	N	R	
Acetone	R	R	R	R	R	R	N	N	R	R	N	N	R	R	N	R	R	R	R	R	R	N	R	N	R
Alcohols: Isobutyl	R	N	X	R	R	R	R	X	X	R	R	X	R	R	R	R	R	X	R	R	R	R	R	R	
Alcohols: Isopropyl	R	N	X	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	
Alcohols: Methyl	R	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	
Ammonia, Anhydrous	N	R	N	R	R	R	R	X	X	N	R	R	R	R	R	X	R	R	X	R	N	R	R	R	
Ammonia, Liquid	N	R	X	R	R	R	R	X	R	N	R	R	R	R	X	R	R	R	X	R	N	R	R	N	
Ammonium Hydroxide	N	R	N	R	R	R	R	N	N	N	R	R	R	R	R	R	R	N	R	R	R	R	R	N	
Antifreeze	R	R	X	X	R	X	R	X	X	N	R	X	X	R	R	X	R	R	R	X	R	X	R	R	
Boric Acid	R	N	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	
Butyl Acetate	R	R	R	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	N	
Calcium Chloride	R	N	X	N	R	R	N	X	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Calcium Hypochlorite	N	N	X	N	N	R	R	X	X	N	N	R	R	R	R	R	R	N	R	R	R	R	R	N	
Carbon Tetrachloride (wet)	R	N	R	R	R	R	X	X	X	R	N	R	R	X	N	R	R	X	X	R	X	R	N	N	
Carbonic Acid	R	N	N	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	N	
Chlorine Water	R	N	N	N	N	R	R	X	N	N	N	R	R	N	N	R	X	R	R	R	R	R	N	N	
Chlorine, Anhydrous Liquid	N	N	N	N	N	N	N	X	X	R	N	R	R	N	R	R	N	X	N	N	R	R	R	N	
Clorox® Bleach (Sodium Hypochlorite)	X	N	X	R	R	R	R	R	N	N	N	R	R	R	R	X	R	N	X	R	R	R	R	N	
Detergents	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R	
Diesel Fuel	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R	N	R	
Ethanol	R	N	R	R	R	R	N	X	R	R	R	X	R	R	R	R	R	X	R	R	R	R	N	R	
Ethylene Dichloride	N	R	R	R	R	R	N	X	X	R	N	R	R	R	N	R	R	R	X	R	R	R	N	N	
Ethylene Glycol	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Ferric Chloride	N	N	N	N	N	R	R	X	N	N	R	R	R	R	R	R	R	N	X	R	R	R	R	R	
Fuel Oils (#1 and #2)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	N	R	
Gasoline, Unleaded	R	R	X	R	R	R	N	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R	N	R	
Heptane	R	R	R	R	R	R	N	X	X	R	R	R	R	R	R	R	R	X	R	R	R	R	N	R	
Hydraulic Oil (Petro)	R	R	R	R	R	R	R	R	X	R	R	R	R	R	X	R	R	R	R	R	R	R	N	R	
Hydraulic Oil (Synthetic)	R	R	R	R	R	R	R	R	X	X	R	R	R	R	X	R	R	R	R	R	R	R	R	N	
Hydrochloric Acid 20%	N	N	X	N	N	R	R	R	N	N	N	R	R	N	R	R	N	N	R	R	R	R	N	X	
Hydrochloric Acid 37%	N	N	X	N	N	R	R	X	N	N	N	R	R	R	R	R	N	N	R	R	R	R	R	R	
Hydrochloric Acid 100%	N	N	N	N	N	R	N	N	N	N	N	R	R	R	R	R	R	N	R	R	R	R	N	N	
Hydrofluoric Acid 20%	R	N	X	N	N	R	R	R	N	N	N	R	R	N	N	X	N	N	R	R	R	R	N	N	
Hydrofluoric Acid 100%	R	N	X	N	R	R	N	N	N	N	N	R	R	N	N	R	N	N	R	R	R	R	N	N	
Hydrogen Peroxide 10%	R	N	X	R	R	R	R	R	N	N	N	R	R	R	R	N	R	N	R	R	R	R	R	N	
Hydrogen Peroxide 30%	R	N	X	R	R	R	R	X	N	N	N	R	R	R	R	N	X	N	R	R	R	R	R	N	
Hydrogen Peroxide 100%	R	R	N	R	R	R	R	X	N	N	N	R	R	R	R	N	X	N	R	R	R	R	N	N	
Isopropyl Acetate	R	N	X	N	R	R	N	X	X	N	N	N	R	R	X	R	R	R	X	R	N	R	R	N	
Kerosene	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R	N	R	
Ketones	R	R	X	R	R	R	N	X	X	N	N	N	R	R	N	R	R	R	X	R	N	R	R	N	
Lacquer Thinners	R	R	R	R	R	R	N	X	X	N	N	X	R	X	N	R	X	R	X	R	N	R	N	N	

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Lacquers	R	R	X	R	R	R	N	X	X	N	N	N	R	R	N	R	R	R	X	R	N	R	N	N	R
Lye: NaOH Sodium Hydroxide	N	N	N	R	R	N	R	X	X	N	R	N	R	R	R	X	R	R	X	N	R	R	R	R	R
Magnesium Hydroxide	R	N	N	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R
Methanol (Methyl Alcohol)	R	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R
Methyl Ethyl Ketone	R	R	R	R	R	R	N	R	R	N	N	N	R	R	N	R	R	X	R	R	N	R	R	N	R
Motor Oil	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R
Nitrating Acid (> 15% H2SO4)	X	N	X	N	N	R	N	X	X	N	N	X	R	N	X	X	R	N	X	R	R	R	R	N	R
Nitric Acid (5-10%)	R	N	N	R	R	R	R	X	R	N	R	R	R	R	R	R	N	N	X	R	R	R	R	N	R
Nitric Acid (50%)	R	N	N	R	R	R	R	X	N	N	N	R	R	N	R	R	N	N	N	R	R	R	N	N	R
Nitric Acid (Concentrated)	R	N	N	R	R	R	R	R	N	N	N	R	R	N	R	N	N	N	N	R	R	R	N	N	R
Oils: Hydraulic Oil (Petro)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R	X	R	R	R	N	R	R
Oils: Mineral	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R
Oils: Transformer	X	R	X	R	R	X	R	R	X	R	R	R	R	R	X	R	R	R	X	X	R	R	N	R	R
Phosphoric Acid (< 40%)	R	N	N	N	N	R	R	X	N	N	N	R	R	R	R	R	R	N	N	R	R	R	R	N	R
Phosphoric Acid (> 40%)	R	N	N	N	N	R	R	X	N	N	N	R	R	R	R	R	R	N	X	R	R	R	R	N	R
Potassium Chloride	R	N	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Potassium Hydroxide (Caustic Potash)	N	N	N	R	R	R	R	N	R	R	R	R	R	R	R	N	N	N	R	R	R	R	R	R	R
Potassium Hypochlorite	N	N	X	N	N	R	R	X	X	X	N	R	R	X	X	X	N	N	X	R	X	R	R	R	R
Propane (Liquefied)	R	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	X	R	R	R	N	R	R
Propylene Glycol	R	R	X	R	R	R	N	R	R	R	R	X	R	R	X	X	R	R	R	R	R	R	R	R	R
Salt Brine (NaCl Saturated)	R	N	X	R	R	R	R	X	X	X	R	R	R	R	R	R	X	N	X	R	R	R	R	R	R
Sea Water	R	N	N	N	R	R	R	R	X	R	R	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Soap Solutions	R	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Sodium Bicarbonate	R	N	N	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Sodium Chloride	R	N	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R	R	R	R
Sodium Hydroxide (20%)	R	N	R	R	R	R	R	X	R	R	N	R	R	R	R	R	R	N	X	R	N	R	R	R	R
Sodium Hydroxide (50%)	N	N	N	R	R	N	R	X	R	R	N	R	R	R	R	X	R	N	X	N	N	R	R	R	R
Sodium Hydroxide (80%)	N	N	N	N	N	R	R	N	R	N	N	R	R	R	R	R	N	N	R	N	R	R	R	N	R
Sodium Hypochlorite (< 20%)	N	N	N	N	N	R	R	X	N	N	N	R	R	R	R	R	R	N	R	R	R	R	R	R	R
Sodium Hypochlorite (100%)	N	N	N	N	N	R	R	X	N	N	N	R	R	R	R	N	R	N	R	R	R	R	R	N	R
Sulfuric Acid (< 10%)	R	N	X	N	R	R	R	X	N	N	N	R	R	R	R	R	R	N	X	R	R	R	R	R	R
Sulfuric Acid (75-100%)	R	N	X	N	N	R	N	X	N	X	N	R	R	N	R	N	R	N	N	R	R	R	R	N	R
Toluene (Toluol)	R	R	R	R	R	R	N	N	R	N	N	R	R	R	N	R	R	R	R	R	N	R	N	N	R
Trichloroethylene	R	N	X	R	R	R	N	X	R	N	N	R	R	R	N	R	X	R	R	R	R	R	N	N	R
Vinegar	R	N	N	R	R	R	R	R	N	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Water, Deionized	X	N	R	R	R	R	R	X	X	X	R	R	R	X	R	R	R	X	X	R	R	R	R	R	R
Water, Distilled	R	N	R	R	R	R	R	R	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R
Water, Salt	R	N	N	N	R	R	R	X	X	R	R	R	R	R	R	R	R	R	X	R	R	R	R	R	R
Xylene	R	R	R	R	R	R	N	N	R	R	N	R	R	R	R	R	R	R	X	R	R	R	N	N	R

*GPI has done its best to ensure that the wetted parts of our meters are compatible as stated, but we cannot guarantee the part's compatibility with different fluid types. It is the user's responsibility to make sure that the process flow conditions, including, but not limited to concentration and/or temperature of the fluid being metered are compatible with the wetted parts of the meter.