

# Wallace & Tiernan® Flow Measurement Equipment

## Chemical Compatibility and Material Selection Guide

# SIEMENS

Information provided is intended to serve as a guide in helping select Wallace & Tiernan® flowmeters for specific flow-metering applications. Guidance for materials of construction is found in the chemical compatibility table. This guidance provides what we believe to be a suitable and economical choice of materials for each chemical listed.

All guidance is based on a service temperature of 70° F. Any variation in temperature, concentration, or purity may radically alter the corrosive activity of the chemical.

Listed at the beginning of this catalog are some commonly used chemicals that, because of their inherent properties, are considered problem fluids. Consider the special information in the problem fluids section below before selecting flowmeter materials for any liquid. If a particular meter-type is not listed under a chemical, that type meter should not be used with that chemical.

**WARNING: Do not use Glass-Tube meters for fluids that are toxic, hazardous, or that attack glass.**

This publication contains a listing of the liquids and gases most frequently metered in chemical processes. The type of meter with materials of construction best suited for that service can be identified. If your gas or liquid does not appear, ask us. If our section on "Problem Fluids" or the notes on certain chemicals do not give you a clear picture, ask us. Write (Siemens Water Technologies Corp., 1901 West Garden Road, Vineland, NJ 08360), call 856-507-9000 or email us at wtus.water@siemens.com. We'll see that you get an answer.



## Problem Fluids

All of these may be metered with TFE-Lined Varea-Meter® units. Please refer to individual service listings.

**AMMONIA (NH<sub>3</sub>)** Ammonia in any form will attack brass. Use only steel or stainless steel meters. PVC meters may be used for dry NH<sub>3</sub> gas service.

**CHLORINE** Dry (anhydrous) chlorine in liquid or gaseous form (less than 150 ppm water) can be handled by many common metals. In the presence of water or water vapor, however, chlorine forms hydrochloric acid (HCl). Hydrochloric acid will attack nearly all metals. Chlorine solutions (chlorine water) may be handled with a PVC-Tube if desired (or Glass-Tube meter with PVC end fittings). Do not use a PVC-Tube meter or glass tube meters for chlorine gas service under pressure.

**HYDROCHLORIC ACID (HCl) (MURIATIC ACID)** All concentrations of hydrochloric acid will attack most common metals. PVC exhibits good resistance. Thus, PVC-Tube meters should be considered up to 140° F at 35% concentration. Concentrated HCl to 72° F may also be handled with a PVC-Tube meter. Do not use Glass-Tube meters for this service.

**HYDROFLUORIC ACID (HF) FLUORINE (F)** Fluorine and most of its compounds attack glass. Do not use Glass-Tube meters for this service. Metal-Tube and PVC-Tube meters are satisfactory for most hydrofluoric acid applications. NOTE: When using a PVC-Tube meter, a Hastelloy® C metering disc should be used instead of the standard Tantalum, which is attacked by fluorine compounds.

**PHOTO-PROCESSING FLUIDS** This group includes many different solutions. Some attack common metals and become contaminated. Type 316 stainless steel is compatible with most photo-processing solutions, except ferricyanide bleach for which Hastelloy® C must be used. PVC or Glass-Tube meters with PVC or KYNAR® end fittings may also be considered as an alternative to 316 SS meters for common photo solutions.

**SODIUM HYDROXIDE (NaOH), OTHER CAUSTICS** Sodium hydroxide and other caustics attack glass, especially at elevated temperatures and/or concentrations about 20%. Metal-Tube Varea-Meter® units are recommended for this service. Do not use Glass-Tube meters for this service.

**STEAM AND HOT WATER** Steam and hot water (200° F and higher) attack borosilicate glass. Do not use Glass-Tube meters for this service. Metal-Tube meters should be specified.

**SULFURIC ACID (H<sub>2</sub>SO<sub>4</sub>)** Material requirements for sulfuric acid vary with concentration, temperature, and impurities. The interrelationship of these three variables is complex and makes reliable material selection difficult. Metal-Tube and PVC meters are suitable for H<sub>2</sub>SO<sub>4</sub> service under certain conditions. Glass-Tube meters may be materially suitable but there are hazards in the event of glass tube breakage. Do not use Glass-Tube meters for sulfuric acid service.

NOTE: As mentioned in the introduction, all guidance is based on a service temperature of 70° F. Variations in temperature, concentration, or amounts of impurities may radically change corrosive effects. Guidance is based on material compatibility only. Metal-Tube Varea-Meter® units are recommended for toxic and hazardous materials. **Do not use Glass-Tube meters for fluids that are toxic or hazardous, or that attack glass.**







## Chemical Compatibility Table

RATING KEY (A) ACCEPTABLE (C) UNACCEPTABLE (N) INFORMATION LACKING	TUBE MATERIAL			END FITTING/ CONNECTION MATERIAL			O-RING MATERIAL			FLOAT MATERIAL			RETAINER MATERIAL																			
	BOROSILICATE GLASS	316 SS	PVC	304 SS (TFE LINED)	BRASS	CARBON STEEL	316 SS	ALUMINUM	KYNAR®	PVC	VITON®	BUNA-N	TFE	EPR	321 SS	KALREZ®4079	BRASS	316 SS	Hastelloy® C	PVC	POLYPROPYLENE	SAPPHIRE	TANTALUM	BLACK GLASS	TFE	KYNAR®	TFE	316 SS				
APPLICATION NOTE REF. NO. FLUID																																
46 BENZOIC ACID	C	A	A	A	C	C	A	C	A	A	A	C	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	C				
46 BORAX (SODIUM BORATE)	A	A	A	A	C	C	A	C	A	A	A	A	A	A	A	A	C	A	A	A	C	C	A	C	A	A	A	A	A			
17,46 BORIC ACID	A	A	A	A	C	C	A	C	A	A	A	A	A	A	A	A	C	A	A	A	C	C	A	C	A	A	A	A	A			
25,46 BRINE	A	C	A	A	C	C	C	C	A	A	A	C	A	C	C	A	C	C	A	A	C	C	A	C	A	A	A	A	C			
46,59 BROMIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C	C			
46,59 BROMINE (WATER)	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	A	C	A	A	A	A	C			
1,43,46 BUTANE	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	A	A	A	A	C	C	A	A	A	A	A	A	A	A	A		
46,64 BUTTERMILK	A	A	C	C	C	C	A	A	C	C	A	A	C	C	C	A	C	A	A	C	C	C	C	C	C	C	C	C	C	C		
43,46,51,57 BUTYL ACETATE	C	A	A	A	C	A	A	C	A	A	C	C	A	A	A	A	C	A	A	A	C	C	A	C	A	A	A	A	C			
43,46,59 BUTYL ALCOHOL	C	A	C	A	C	A	A	C	A	C	A	A	A	A	A	A	C	A	A	C	C	C	A	C	A	A	A	A	C			
1,43,46 BUTYLENE	C	A	C	A	A	A	A	C	A	C	A	A	A	C	A	A	A	A	A	C	C	A	A	C	A	A	A	A	A			
10,46 BUTYRIC ACID	C	A	A	A	C	A	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	A	C			
46 CALCIUM CARBONATE	C	A	A	A	C	A	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	A	C			
46 CALCIUM CHLORATE	C	A	A	A	C	C	A	C	A	A	C	C	A	C	A	A	C	A	C	A	C	C	A	C	A	A	A	A	C			
13,46,52 CALCIUM CHLORIDE	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	A	A	A	A	A	A	A	A			
18,47 CALCIUM HYDROXIDE	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	A	C	A	A	A	A	A	A			
46,59 CALCIUM HYPOCHLORITE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C			
46,47 CALCIUM NITRATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C			
46,47 CALCIUM SULFATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C			
CARBOLIC ACID	A	A	C	C	C	C	A	C	C	C	A	C	C	C	A	A	C	A	A	C	C	C	C	C	C	C	C	C	C			
1,4,46 CARBON DIOXIDE (WET)	A	A	C	A	A	C	A	C	A	C	A	A	A	C	A	A	C	A	A	A	A	A	A	A	A	A	A	A	A			
46,57 CARBON DISULFIDE/ BISULFIDE	A	A	C	A	A	A	A	C	A	C	A	A	A	C	A	A	A	A	A	C	C	A	A	A	A	A	A	A	A	A		
4,43,46,53 CARBON MONOXIDE	C	A	C	A	C	C	A	C	A	C	A	A	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	A	C			
46 CARBON SLURRY	A	A	A	A	A	C	A	C	A	A	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A		
3,46 CARBON TETRACHLORIDE	C	A	C	A	C	A	A	C	A	C	A	C	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	A	C			
20,46 CARBONIC ACID	C	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	A	C			
1,26,46 CASTOR OIL	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A		
45 CAUSTIC POTASH	C	C	A	A	C	C	C	C	C	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	A	C	C		
3,44,46,47,48,59 CHLORINE-DRY GAS	A	A	C	A	C	A	A	C	A	C	A	C	A	C	C	A	C	C	A	C	C	C	A	C	A	A	A	A	C	C		
3,44,46,47,59 CHLORINE-WET GAS	C	C	C	A	C	C	C	C	A	C	C	C	C	C	N	C	C	A	C	C	C	A	C	A	A	A	A	A	C	C		
3,46 CHLORINE SOLUTION	A	C	A	A	C	C	C	C	A	A	A	C	A	C	C	N	C	C	A	C	C	C	A	C	A	A	A	A	A	C	C	
3,46,47,59 CHLORINE-LIQUID	C	C	C	A	C	A	C	C	A	C	C	C	C	C	N	C	C	A	C	C	C	A	C	A	A	A	A	A	A	C	C	
43,58 CHLORO BENZENE	C	A	C	C	C	C	A	C	A	C	A	C	C	C	A	A	C	A	A	C	C	C	C	C	C	C	C	C	C	C		
46,47,61 CHLOROFORM	A	A	C	A	A	A	A	C	A	C	A	C	A	C	A	A	A	A	A	C	C	A	A	A	A	A	A	A	A	A	A	
21,46,58,63 CHROMIC ACID-AQUEOUS	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	A	C	C	A	A	A	A	C	C	
18,46 CITRIC ACID	A	A	A	A	C	C	A	C	A	A	A	C	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A	A	A	
43,46 COKE OVEN GAS	C	A	C	A	C	C	A	C	C	C	A	C	A	A	A	A	C	A	A	C	C	C	A	C	A	A	A	A	A	A	C	C

# Chemical Compatibility Table

RATING KEY (A) ACCEPTABLE (C) UNACCEPTABLE (N) INFORMATION LACKING	TUBE MATERIAL				END FITTING/ CONNECTION MATERIAL				O-RING MATERIAL						FLOAT MATERIAL				RETAINER MATERIAL										
	BOROSILICATE GLASS	316 SS	PVC	304 SS (TFE LINED)	BRASS	CARBON STEEL	316 SS	ALUMINUM	KYNAR®	PVC	VITON®	BUNA-N	TFE	EPR	321 SS	KALREZ®4079	BRASS	316 SS	Hastelloy® C	PVC	POLYPROPYLENE	SAPPHIRE	TANTALUM	BLACK GLASS	TFE	KYNAR®	TFE	316 SS	
APPLICATION NOTE REF. NO. FLUID																													
45 COPPER CHLORIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	A	C
45 COPPER NITRATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	A	C
17,46 COPPER SULFATE	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	A	A	A	A	A	A	A	A
1,26,46 COTTONSEED OIL	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
26,45 COCONUT OIL	A	A	C	A	A	C	A	C	A	C	A	A	A	C	A	A	A	A	A	C	C	A	A	A	A	A	A	A	
2,46,58 CRESOL	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C	
46 DOWTHERM-A	C	A	C	A	C	C	A	C	C	C	A	C	A	C	A	A	C	A	C	C	C	C	A	C	A	A	C	A	C
46 EDIBLE OIL	A	A	C	A	C	C	A	N	A	C	C	A	A	C	A	N	C	A	A	C	C	C	A	C	A	A	C	A	C
1,43,46 ETHANE	A	A	C	A	C	A	A	A	A	C	A	A	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	A	
43,46 ETHER-METHYL, ETHYL, ISOPROPYL	C	A	C	A	C	C	A	C	C	C	C	C	C	A	A	A	C	A	C	C	C	C	A	C	A	C	A	C	
43,45 ETHYL ACETATE	C	A	C	A	C	C	A	C	C	C	C	C	C	A	A	A	C	A	C	C	C	C	A	C	A	C	A	C	
43,46 ETHYL ALCOHOL	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C	
43,46,47 ETHYL CHLORIDE	C	A	C	A	C	C	A	C	A	C	C	A	C	C	A	A	C	A	C	C	C	C	A	C	A	A	A	C	
1,43,46 ETHYLENE	A	A	C	A	C	A	A	C	A	C	C	A	A	C	A	A	C	A	C	C	C	A	A	A	A	A	A	A	
19,43,46 ETHYLENE DICHLORIDE	A	A	C	A	A	C	A	C	A	C	A	C	A	C	A	A	A	A	C	C	C	A	A	A	A	A	A	A	
19,46 ETHYLENE GLYCOL	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	
19,46 FATTY ACIDS	A	A	A	A	A	C	A	C	A	A	A	A	A	C	A	A	A	A	A	A	C	A	A	A	A	A	A	A	
46 FERRIC CHLORIDE	A	C	A	A	C	C	C	C	A	A	A	A	C	C	C	A	C	C	A	A	C	C	A	C	A	A	A	C	
45,46,47 FERRIC NITRATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C	
17,25,45,47,50 FEFIC SULFATE	A	A	A	A	C	C	C	C	A	A	C	A	A	C	C	A	C	C	A	A	C	C	C	C	A	A	A	C	
45,47 FERROUS CHLORIDE	A	C	A	A	C	C	C	C	A	A	A	A	C	C	A	A	C	C	A	A	C	C	C	C	A	A	A	C	
46 FERROUS SULFATE	A	C	A	A	C	C	C	C	A	A	C	A	A	C	C	A	C	C	A	A	C	C	C	C	A	A	A	C	
22,46,47 FLUOSILICIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	A	C	A	A	A	C	
46,59,61 FORMALDEHYDE	C	A	C	A	C	C	A	C	A	C	C	A	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	C	
23,46 FORMIC ACID	C	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	C	
46 FRUIT JUICES	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	A	A	A	A	A	A	A	
43,46 FUEL OIL #1, 2, 4, 5, 6	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	A	A	
46 FUEL OIL W/ H <sub>2</sub> SO <sub>4</sub>	C	A	A	A	C	C	A	C	C	A	C	C	C	C	C	A	C	A	A	A	C	C	A	C	A	C	A	C	
43,46,57 FURFURAL	A	A	C	A	C	C	A	A	A	A	C	C	A	A	A	N	C	A	A	C	C	A	A	A	A	A	A	A	
13,43,46 GASOLINE	C	A	C	A	C	A	A	C	A	C	A	A	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	A	
19,46 GLYCERINE	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	
46 GUM SOLUTION	A	A	C	A	C	A	A	A	A	C	A	C	A	C	A	N	C	A	A	C	C	A	A	A	A	A	A	A	
1,46 HELIUM	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A	A	
46 HEPTANE	C	A	C	A	C	C	A	C	A	C	C	C	C	C	A	A	C	A	A	C	C	C	A	C	A	A	A	C	
46 HEXANE	C	A	C	A	C	C	A	C	A	C	A	A	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	C	
46,54 HYDRAZINE	C	A	C	A	C	C	A	C	A	C	C	C	C	C	N	N	C	A	C	C	C	C	A	C	A	A	A	C	
46,61 HYDRAZINE HYDRATE	C	A	C	A	C	C	A	C	A	C	C	C	C	C	N	N	C	A	C	C	C	C	A	C	A	A	A	C	

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<b>RATING KEY</b> (A) ACCEPTABLE (C) UNACCEPTABLE (N) INFORMATION LACKING	<b>TUBE MATERIAL</b>				<b>END FITTING/ CONNECTION MATERIAL</b>				<b>O-RING MATERIAL</b>				<b>FLOAT MATERIAL</b>				<b>RETAINER MATERIAL</b>												
	BOROSILICATE GLASS	316 SS	PVC	304 SS (TFE LINED)	BRASS	CARBON STEEL	316 SS	ALUMINIUM	KYNAR®	PVC	VITON®	BUNA-N	TFE	EPR	321 SS	KALREZ®4079	BRASS	316 SS	Hastelloy® C	PVC	POLYPROPYLENE	SAPPHIRE	TANTALUM	BLACK GLASS	TFE	KYNAR®	TFE	316 SS	
APPLICATION NOTE REF. NO. FLUID																													
10,45 HYDROBROMIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	A	C
3,46 HYDROCHLORIC ACID (ALL CONC.)	C	C	A	A	C	C	C	C	A	C	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C	
3,21,45 HYDROFLUORIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	C	
1,43,46 HYDROGEN	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	A	C	A	A	C	A	A	A	A	A	A	A	A	
5,46 HYDROGEN CHLORIDE-DRY	C	A	A	A	C	A	A	C	A	A	C	A	A	C	A	A	C	A	A	A	A	C	A	C	A	A	A	C	
3,6,46 HYDROGEN CHLORIDE-WET	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C	
21,39,40,45,60 HYDROGEN PEROXIDE	C	A	A	A	C	C	A	C	A	A	A	A	A	A	A	A	C	A	A	A	A	C	C	C	A	A	A	C	
43,46 HYDROGEN SULFIDE-DRY	C	A	C	A	C	A	A	C	A	C	A	A	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	C	
46 HYDROGEN SULFIDE-WET	C	A	C	A	C	C	A	C	A	C	C	C	C	C	C	A	C	A	C	C	C	C	A	C	A	A	A	C	
46,57 HYPOCHLOROUS ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	N	C	C	C	A	C	C	A	C	A	A	A	C	
46 ILLUMINATING GAS	C	A	C	A	C	A	A	C	C	C	C	C	C	C	C	N	C	A	C	C	C	C	A	C	A	C	A	C	
43,46,58 ISOPROPYL ALCOHOL	C	A	A	A	C	C	A	C	A	A	A	C	A	C	A	A	C	A	C	A	C	C	A	C	A	A	A	C	
43,46 KEROSENE	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
46 KRAFT LIQUOR	C	C	A	A	C	C	C	C	C	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	C	A	C	
43,46 LACQUER THINNERS	A	A	C	A	C	C	A	C	C	C	A	A	A	C	A	A	C	A	A	C	C	A	A	A	A	C	A	A	
16,22,46,61 LACTIC ACID	A	A	A	A	C	C	A	C	A	A	A	C	A	C	A	A	C	A	C	A	C	A	A	A	A	A	A	A	
45 LAURIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	C	
45 LAURYL SULFATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	N	C	C	A	A	C	C	C	C	A	A	A	C	
45,46 LEAN ACETATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	N	C	C	A	A	C	C	C	C	A	A	A	C	
46 LINSEED OIL	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	
46 LITHIUM HYPOCHLORITE	A	C	A	A	C	C	C	N	A	A	A	C	C	C	C	A	C	C	A	A	C	C	A	C	A	A	A	C	
46 LUBRICATING OILS	A	A	A	A	A	C	A	A	A	A	A	A	A	C	A	A	A	A	A	A	C	A	A	A	A	A	A	A	
46 MAGNESIUM CARBONATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	N	C	C	C	A	C	C	A	C	A	A	A	C	
17,25,46 MAGNESIUM CHLORIDE	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	A	A	A	A	A	A	A	
3,45,46 MAGNESIUM HYDROXIDE	C	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	C	
46 MAGNESIUM NITRATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C	
19,46 MAGNESIUM SULFATE	A	A	A	A	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	C	A	A	A	A	A	A	A	
1,43,46 METHANE	A	A	C	A	C	A	A	A	A	C	A	A	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	
43,46 METHANOL- METHYL ALCOHOL	C	A	A	A	C	C	A	C	A	A	C	A	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	C	
25,43,45 METHYL CHLORIDE	A	A	C	A	A	C	A	C	A	C	C	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	A	A	
43,46 METHYL-ETHYL KETONE	C	A	C	A	C	C	A	C	C	C	A	C	A	A	C	A	C	A	A	C	C	C	A	C	A	C	A	C	
46,61 METHYL-SULFURIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C	
45,61 METHYLENE CHLORIDE	C	A	C	A	C	C	A	C	A	C	A	C	A	C	A	N	C	A	A	C	C	C	C	C	A	A	A	C	
46 MIL-H-5606 A	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	N	A	A	A	C	A	A	A	A	A	A	A	A	
1,46 MILK	A	A	A	A	C	C	A	A	A	A	A	A	A	A	A	A	C	A	A	A	C	A	A	A	A	A	A	A	
1,26,46 MINERAL OILS	A	A	A	A	A	C	A	A	A	A	C	A	A	C	A	A	C	A	A	A	C	A	A	A	A	A	A	A	

# Chemical Compatibility Table

RATING KEY (A) ACCEPTABLE (C) UNACCEPTABLE (N) INFORMATION LACKING	TUBE MATERIAL				END FITTING/ CONNECTION MATERIAL				O-RING MATERIAL					FLOAT MATERIAL					RETAINER MATERIAL											
	BOROSILICATE GLASS	316 SS	PVC	304 SS (TFE LINED)	BRASS	CARBON STEEL	316 SS	ALUMINIUM	KYNAR®	PVC	VITON®	BUNA-N	TFE	EPR	321 SS	KALREZ®4079	BRASS	316 SS	Hastelloy® C	PVC	POLYPROPYLENE	SAPPHIRE	TANTALUM	BLACK GLASS	TFE	KYNAR®	TFE	316 SS		
APPLICATION NOTE REF. NO. FLUID																														
3,46 MURIATIC ACID	C	C	A	A	C	C	C	C	X	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	C	A	C	A	C
43,46 NAPHTHA	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	C	A	C	A	C
43,46,59 NAPHTHALENE	C	A	C	A	C	C	A	C	A	C	A	A	A	C	A	A	C	A	A	C	C	C	A	C	A	C	A	A	C	
43,46 NATURAL GAS	A	A	C	A	C	A	A	A	A	C	A	A	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A	
46 NEON	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	
46 NICKEL CHLORIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
16,46 NICKEL NITRATE	A	C	A	A	C	C	C	C	A	A	C	A	A	C	C	A	C	C	A	A	C	C	A	C	A	A	A	A	C	
16,19,25,27,46 NICKEL SULFATE	A	A	A	A	A	C	A	C	A	A	A	A	A	C	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	
10,21,37,46 NITRIC ACID (70% TO 100°F)	C	A	A	A	C	C	A	C	A	A	A	A	A	A	A	N	C	A	A	A	C	C	A	C	A	A	A	A	C	
1,46 NITROGEN	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
46 NITROGEN TETROXIDE	C	A	C	A	C	A	A	C	C	C	C	A	A	C	A	N	C	A	A	C	C	C	A	C	A	C	A	C	C	
7,46 NITROUS OXIDE	A	A	C	A	A	A	A	C	C	C	A	A	A	C	A	N	A	A	A	C	A	A	A	A	A	A	A	C	A	A
46 OILS AND FATS	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
16,46 OLEIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
3,24,45 OLEUM	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	A	C	C	A	C	C	C	C	C	A	C	A	C	C	
28,46,61 OXALIC ACID	C	A	A	A	C	C	A	C	A	A	A	C	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	A	C	
7,46 OXYGEN	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	N	A	A	A	C	A	A	A	A	A	A	A	A	A	
7,46 OZONE	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	
46 PENTANE	C	A	C	A	C	C	A	A	C	C	C	A	C	C	A	A	C	A	A	C	C	C	A	C	A	C	A	C	C	
46,61 PHENOL	C	A	C	A	C	C	A	A	A	C	A	C	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	A	C	
35,36,46 PHOSPHORIC ACID	C	A	C	A	C	C	A	C	A	C	A	C	A	C	C	A	C	A	A	C	C	C	A	C	A	A	A	A	C	
3,34,46 PHOTOGRAPHIC SOLUTIONS	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	N	C	A	A	A	C	A	A	A	A	A	A	A	A	
46,59 POTASSIUM BICARBONATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
46 POTASSIUM BICHROMATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
46 POTASSIUM BISULFITE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
46 POTASSIUM BROMIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
45 POTASSIUM CARBONATE	A	A	A	A	A	C	A	C	A	A	A	A	A	C	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	
45,49 POTASSIUM CHLORATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	A	C	
45 POTASSIUM CHLORIDE	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	A	C	A	A	A	A	A	A	
46 POTASSIUM CHROMATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
46 POTASSIUM DICHROMATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
46 POTASSIUM FERROCYANIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
3,10,13,21,45,46 POTASSIUM HYDROXIDE	C	A	A	A	C	C	A	C	C	A	A	A	A	C	A	A	C	A	A	A	C	C	A	C	A	C	A	C	C	
45,46,59 POTASSIUM HYPOCHLORITE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C	
46 POTASSIUM NITRATE	A	A	A	A	C	A	A	C	A	A	A	A	A	C	A	N	C	A	A	A	C	A	A	A	A	A	A	A	A	
46 POTASSIUM PERBORATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	N	C	C	C	A	C	C	A	C	A	A	A	A	C	
33,46 POTASSIUM PERMANGANATE	A	A	A	A	A	C	A	C	A	A	A	A	A	C	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	

## Chemical Compatibility Table

<b>RATING KEY</b> (A) ACCEPTABLE (C) UNACCEPTABLE (N) INFORMATION LACKING	<b>TUBE MATERIAL</b>				<b>END FITTING/ CONNECTION MATERIAL</b>				<b>O-RING MATERIAL</b>				<b>FLOAT MATERIAL</b>				<b>RETAINER MATERIAL</b>													
	BOROSILICATE GLASS	316 SS	PVC	304 SS (TFE LINED)	BRASS	CARBON STEEL	316 SS	ALUMINUM	KYNAR®	PVC	VITON®	BUNA-N	TFE	EPR	321 SS	KALREZ®4079	BRASS	316 SS	Hastelloy® C	PVC	POLYPROPYLENE	SAPPHIRE	TANTALUM	BLACK GLASS	TFE	KYNAR®	TFE	316 SS		
APPLICATION NOTE REF. NO. FLUID																														
46,61 POTASSIUM PERSULFATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	C	A	A	A	A	
33,46 POTASSIUM SULFATE	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
46 POTASSIUM SULFIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	C	A	A	A	C	
43,46 PROPANE	C	A	C	A	C	A	A	C	A	C	A	A	C	A	A	A	C	A	A	C	A	C	A	C	A	C	A	A	C	
45 PROPIONIC ACID	C	A	C	A	C	C	A	C	C	C	C	C	C	C	A	C	C	A	C	C	C	C	C	A	C	A	C	A	C	
43,46,58 PROPYL ALCOHOL	C	C	A	A	C	C	C	C	A	A	C	C	C	C	A	C	C	C	A	C	C	A	C	A	C	A	A	A	C	
43,46 PROPYLENE	C	A	C	A	C	A	A	C	C	C	A	A	C	A	A	C	A	A	C	C	C	A	C	A	C	A	C	A	C	
43,46,58 PROPYLENE GLYCOL	A	A	C	A	A	A	A	C	A	C	A	A	A	A	A	A	A	A	C	C	A	A	A	A	A	A	A	A	A	
46 ROSIN SIZE	A	A	C	A	C	A	A	A	A	C	C	A	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A	
46 SALICIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C		
25,46 SEA WATER	A	A	A	A	C	C	A	C	A	A	A	A	A	A	A	A	C	A	A	A	C	A	A	A	A	A	A	A	A	
9,46 SILVER NITRATE	A	A	A	A	C	C	A	C	A	A	A	A	C	A	A	A	C	A	C	A	C	A	A	A	A	A	A	A	A	
46 SIZE SOLUTION	A	A	C	A	A	A	A	A	A	C	C	A	A	C	A	N	A	A	C	C	C	A	A	A	A	A	A	A	A	
46 SKYDROL 500 A	A	A	C	A	C	C	A	C	A	C	A	A	A	A	A	A	C	A	C	C	C	A	A	A	A	A	A	A	A	
46 SOAPS	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C		
46 SODIUM ACETATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C		
46 SODIUM ARSENITE	C	C	A	A	C	C	C	C	C	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	C	A	C		
46 SODIUM BENZOATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C		
19,46 SODIUM BICARBONATE	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
46 SODIUM BICHROMATE	C	A	C	A	C	C	A	C	C	C	A	A	A	C	A	A	C	A	C	C	C	C	A	C	A	C	A	C	C	
46 SODIUM BISULFATE	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	C	A	C	A	A	A	A	A	A	A	A	
46 SODIUM BISULFITE	A	A	A	A	C	C	A	A	A	A	A	A	A	C	A	A	C	A	C	A	C	A	A	A	A	A	A	A	A	
46 SODIUM BROMIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C		
46 SODIUM CARBONATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C		
46 SODIUM CHLORIDE	A	A	C	A	C	C	A	C	A	A	A	A	A	A	A	A	C	A	A	A	C	A	A	A	A	A	A	A	A	
46,59 SODIUM DICHROMATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	N	C	C	C	A	C	C	A	C	A	A	A	C		
46 SODIUM FERRICYANIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C		
46 SODIUM FERROCYANIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	C		
17,45 SODIUM FLOURIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	C		
46 SODIUM HYDROSULFITE	A	A	C	A	C	C	A	A	A	C	A	A	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A	
3,21,45,47,60 SODIUM HYDROXIDE	C	A	A	A	C	C	A	C	A	A	C	A	A	A	A	A	C	A	A	A	C	C	C	C	A	A	A	C		
31,45,59 SODIUM HYPOCHLORITE	A	C	A	A	C	C	C	C	A	A	A	C	A	C	C	A	C	C	A	A	C	C	C	C	A	A	A	C		
46 SODIUM NITRATE	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A	A	A	
46 SODIUM NITRITE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	N	C	C	C	A	C	C	A	C	A	A	A	C		
19,46 SODIUM PHOSPHATE	A	A	C	A	A	C	A	C	A	A	A	A	A	C	A	A	A	C	C	C	A	A	A	A	A	A	A	A	A	
19,46 SODIUM SILICATE	A	A	A	A	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	
27,46 SODIUM SULFATE	A	A	A	A	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	
46 SODIUM SULFITE	A	A	C	A	A	A	A	C	A	C	A	A	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A	

# Chemical Compatibility Table

RATING KEY (A) ACCEPTABLE (C) UNACCEPTABLE (N) INFORMATION LACKING	TUBE MATERIAL				END FITTING/ CONNECTION MATERIAL				O-RING MATERIAL					FLOAT MATERIAL					RETAINER MATERIAL										
	BOROSILICATE GLASS	316 SS	PVC	304 SS (TFE LINED)	BRASS	CARBON STEEL	316 SS	ALUMINIUM	KYNAR®	PVC	VITON®	BUNA-N	TFE	EPR	321 SS	KALREZ®4079	BRASS	316 SS	Hastelloy® C	PVC	POLYPROPYLENE	SAPPHIRE	TANTALUM	BLACK GLASS	TFE	KYNAR®	TFE	316 SS	
APPLICATION NOTE REF. NO. FLUID																													
46,47 SODIUM THIOSULFITE	A	A	A	A	A	C	A	C	A	A	A	A	A	C	A	N	C	A	A	A	C	A	A	A	A	A	A	A	A
26,46 SOYBEAN OIL	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A
46 STANIC CHLORIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C
46 STANNOUS CHLORIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C
26,46,59 STARCH	A	A	C	A	A	A	A	A	A	C	A	A	A	C	A	N	A	A	A	C	C	A	A	A	A	A	A	A	A
3,41,45 STEAM	C	A	C	A	C	A	A	C	C	C	C	C	C	A	N	C	A	A	C	C	C	A	C	A	A	C	A	C	C
46 STEARIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	A	C	C	C	A	C	C	A	C	C	A	A	A	A	C
46 STODDARD'S SOLVENT	C	C	A	A	C	C	C	C	C	A	C	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	C
30,46 SUGAR SOLUTION	A	A	C	A	C	C	A	A	A	C	C	A	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A
46,61 SULFUR DIOXIDE-DRY	A	A	C	A	C	A	A	A	A	C	A	A	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A
45,61 SULFUR DIOXIDE-WET	A	C	C	A	C	C	C	C	A	C	A	C	C	C	C	A	C	C	A	C	C	C	C	C	C	A	A	A	C
3,45,59 SULFURIC ACID (0-95%)	C	C	A	A	C	C	C	C	A	A	C	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	A	C
3,45 SULFURIC ACID-COLD (95% TO CONC)	C	A	C	A	C	A	A	C	A	C	C	C	C	C	A	C	C	A	C	C	C	C	C	C	A	A	A	C	C
3,45 SULFURIC ACID-HOT	C	C	C	A	C	C	C	C	C	C	C	C	C	C	A	C	C	A	C	C	C	C	C	C	A	C	A	C	C
45 SULFUROUS ACID	A	C	A	A	C	C	C	C	A	A	C	C	C	C	A	C	C	A	A	C	C	C	C	A	A	A	A	A	C
46,59 TANNIC ACID	C	C	A	A	C	C	C	C	A	A	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	A	C
46 TANNING LIQUORS	C	C	A	A	C	C	C	C	C	A	C	C	C	C	N	C	C	C	A	C	C	A	C	A	A	A	A	A	C
46 TARTARIC ACID	A	A	A	A	C	C	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	A	A	A	A	A	A	A	A
46,58 TITANIUM TETRACHLORIDE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	N	C	C	C	A	C	C	A	C	A	A	A	A	A	C
43,46,61 TOLUENE (TOLUOL)	C	A	C	A	C	A	A	C	A	C	A	A	A	C	A	A	C	A	A	C	C	C	A	C	A	A	A	A	C
43,46,59 TRICHLORO-BENZENE	A	A	C	A	C	C	A	C	A	C	A	C	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A
38,46 TRICHLORO-ETHYLENE	A	A	C	A	A	C	A	C	A	C	A	C	A	C	A	A	A	A	C	C	A	A	A	A	A	A	A	A	A
46 TRISODIUM PHOSPHATE	C	C	A	A	C	C	C	C	C	A	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	A	C
43,46 TURPENTINE	C	A	A	A	C	A	A	C	A	A	A	A	A	C	A	A	C	A	A	A	C	C	A	C	A	A	A	A	C
46 UREA	C	C	A	A	C	C	C	C	A	A	C	C	C	C	N	C	C	C	A	C	C	A	C	A	A	A	A	A	C
46 VINEGAR	A	A	A	A	C	C	A	C	A	A	C	A	A	A	A	A	C	A	A	A	C	C	A	C	A	A	A	A	A
43,45 VINYL TOLUENE	C	A	C	A	C	A	A	C	C	C	C	C	C	C	N	C	A	A	C	C	C	C	C	A	A	A	A	A	C
46 WATER-COLD	A	A	A	A	A	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
1,3,46 WATER-HOT	A	A	A	A	A	A	A	A	A	A	A	A	A	A	N	A	A	A	A	A	A	A	A	A	A	A	A	A	A
43,46,59 XYLENE OR XYLLOL	A	A	C	A	C	C	A	A	A	C	A	C	A	C	A	A	C	A	A	C	C	A	A	A	A	A	A	A	A
46 ZINC CHLORIDE	A	C	A	A	C	C	C	C	A	A	C	A	C	C	A	C	C	A	A	C	C	A	C	A	A	A	A	A	C
46 ZINC CHROMATE	C	C	A	A	C	C	C	C	C	A	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	A	C
13,46 ZINC HYDROCHLORIDE	A	A	C	A	C	C	A	C	C	C	A	A	A	C	A	N	C	A	A	C	C	C	A	C	A	A	A	A	C
46 ZINC HYDROSULFITE	A	A	C	A	C	C	A	C	A	C	C	A	A	C	A	A	C	A	C	C	C	C	A	C	A	A	A	A	C
46 ZINC NITRATE	C	C	A	A	C	C	C	C	A	A	C	C	C	C	A	C	C	C	A	C	C	A	C	A	A	A	A	A	C
46 ZINC SULFATE	A	A	A	A	A	C	A	C	A	A	A	A	A	C	A	A	A	A	A	C	A	A	A	A	A	A	A	A	A

## APPLICATION NOTES:

1. See Literature WT.510.100.000.UA.PS or WT.510.150.000.UA.PS for float selection.
2. 70° F max.
3. See problem fluids notes (page 3).
4. Brass fittings are suitable for dry gas only; 316 SS fittings must be used for wet gas.
5. Recommendation based on dry gas only.
6. Hydrogen chloride will be absorbed by H<sub>2</sub>O to form hydrochloric acid (HCl).
7. Polypropylene offers limited resistance. Use advisedly.
8. Do not use brass fittings for this service.
9. 8% conc. max.
10. 20% conc. max.
11. 80% conc. max.
12. Glacial
13. BUNA-N may experience long-term effect.
15. 316 SS moderately resistant at 10% conc.
16. 10% conc. max.
17. 5% conc. max.
18. Ambient vapor may attack aluminum frame.
19. Brass may experience long-term effect.
20. Not recommended for glass-tube meters.
21. 50% conc. max.
22. 25% conc. max.
23. Viton® may exhibit long term deterioration.
24. To 105° F max.
25. 316 SS may exhibit long-term deterioration (pitting).
26. Use 316 SS instead of brass for food use.
27. Viton® limited to cool saturated solution.
28. 10% cold conc. max.
29. BUNA-N may exhibit swelling at 70° F.
30. Observe specific viscosity limits for meter selected.
31. To 5% at 100° F; max. 15% at 70° F.
32. 70% conc. max.
33. Brass moderately resistant at 6% conc.
35. 10-50%
36. 10-40% cold
38. Brass resistant only in absence of water or water vapor.
39. Minor long-term effect on all type O-rings.
40. To 30% conc. max.
41. 212° F
42. 100%
43. Warning! Flammable: Use Glass-tube meters only where, in the event of tube breakage, release of fluid will not result in fire hazard.
44. Note: PVC materials of construction are limited to 30" Hg vacuum to 6 psi max. Pressure and 130° F max. temperature for chlorine gas service.
45. Use Hastelloy® C metering disc.
46. Use Tantalum metering disc.
47. Use Kynar® metering disc.
48. Not recommended for positive pressure applications.
49. Kynar® 250° F max.
50. Use Hastelloy® C float where possible.
51. 140° F max.
52. 167° F max. (316 SS)
53. Less than 500 psig
54. To 35% conc. max.
55. Kynar® to 120° F, 30% conc.
56. Kynar® to 125° F
57. Kynar® to 70° F
58. Kynar® to 140° F
59. Kynar® to 200° F
60. Kynar® up to 10% and 150° F
61. Kynar® to 175° F
62. Kynar® 10% to 225° F; 50% to 200° F; 80% to 175° F
63. Kynar® up to 40% in water

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