



Fluid	Tubing formulation											Pump head material				
	PN	CF	S	T	TU	TC	CD	PFL	V	FP	PSF	PC	PPS	SS	PP	
Hydrofluoric acid, 75%	—	A	D	D	D	—	C	D	D	A	—	D	A	D	C	
Hydrogen peroxide (dil)	A	A	A	D	D	A	A	A	A	A	—	A	—	B	A	
Hydrogen peroxide, 90%	B	D	B	D	D	B	B	A	A	A	—	—	—	B	A	
Hypochlorous acid	A	A	D	A	A	A	A	A	A	A	—	—	—	—	—	
Iodine solutions	A	C	C	A	A	A	A	—	A	A	—	D	D	D	A	
Iodoform	—	—	—	—	—	—	D	C	—	—	—	—	—	A	—	
Kerosene	D	D	D	D	B	D	D	A	A	A	—	A	A	A	A	
Ketones	D	D	—	D	D	D	C	C	—	—	D	D	D	A	A	
Lacquer solvents	B	D	D	D	D	D	D	A	D	A	—	D	—	A	D	
Lactic acid, 3-10%	A	A	A	A	A	A	A	A	A	A	—	A	A	B	A	
Lead acetate	A	A	D	A	A	A	A	—	D	A	—	—	A	B	A	
Linseed oil	C	D	A	D	A	B	B	A	A	A	—	A	A	A	A	
Lithium hydroxide	B	A	D	A	A	—	B	—	C	A	—	D	A	B	—	
Magnesium chloride	A	A	A	A	A	A	A	A	A	A	—	A	A	B	A	
Magnesium sulfate	A	A	A	A	A	A	A	A	A	A	—	A	A	B	A	
Malic acid	A	A	B	A	A	A	A	A	A	A	—	—	—	D	B	
Manganese salts	A	A	B	A	A	A	A	—	A	A	—	—	—	D	—	
Mercury salts	A	A	—	A	A	A	A	—	A	A	—	—	—	B	A	
Methane	A	D	D	A	A	A	A	B	A	A <sup>†</sup>	—	—	—	A	B	
Methanol (methyl alcohol)	A	—	A	C	C	C	A	A	B	A	D	B	A	A	A	
Methyl chloride	C	A	D	D	D	D	D	B	B	A	D	—	A	A	D	
Methyl ethyl ketone (MEK)	D	—	D	D	D	C	C	B	D	A	D	D	A	A	A	
Mixed acid (40% H <sub>2</sub> SO <sub>4</sub> , 15% HNO <sub>3</sub> )	B	—	—	B	D	—	—	—	—	A	D	—	—	B	A	
Molybdenum disulfide	—	A	—	—	—	—	A	—	A	—	—	—	—	—	—	
Monoethanolamine	C	B	B	D	D	D	D	—	D	A	—	—	A	A	B	
Naphtha	D	D	D	D	B	D	D	B	A	B	—	—	A	A	B	
Natural gas	A	D	A	A	A	A	A	B	A	A <sup>†</sup>	—	—	—	A	B	
Nickel salts	A	A	A	A	A	A	A	A	A	A	—	—	A	B	A	
Nitric acid (dil)	A	A	B	A	D	A	A	A	B	A	—	B	A	A	A	
Nitric acid (med)	A	—	C	A	D	A	A	A	A	A	C	C	—	A	B	
Nitric acid (conc)	D	—	D	D	D	D	A	A	A	A	C	D	D	A	C	
Nitrobenzene	D	D	D	D	D	D	D	A	B	A	D	D	A	B	B	
Nitrogen oxides	A	A	D	A	A	A	A	—	D	A	—	—	—	—	—	
Nitrous acid	A	A	—	A	C	A	A	—	—	A	—	—	—	B	A	
Oils, animal	C	B	B	D	B	B	B	—	A	A	—	—	—	A	—	
Oils, mineral	D	B	B	C	A	D	D	—	A	A	B	A	A	A	A	
Oils, vegetable	C	B	B	D	A	B	B	A	A	A	—	—	A	A	A	
Oleic acid	C	A	D	D	B	D	C	A	B	A	—	—	A	B	A	
Oxalic acid, cold	B	A	B	B	D	D	A	A	A	A	—	A	B	A	A	
Oxygen, gas	A	A	B	A	A	A	A	A	B	A <sup>†</sup>	A	A	—	A	—	
Palmitic acid, 100% in ether	C	—	D	D	B	C	C	A	A	A	—	—	—	B	C	
Perchloric acid	A	A	D	C	D	D	A	A	A	A	D	D	A	C	C	
Perchloroethylene	C	B	D	D	D	D	D	B	A	A	D	D	A	B	D	
Phenol (carbolic acid)	A	D	D	B	C	A	A	A	A	A	—	D	—	B	A	
Phosphoric acid, 50%	A	A	C	A	A	A	A	A	A	A	A	B	—	A	A	
Phthalic acid	A	D	B	D	A	A	A	—	B	A	—	—	—	B	A	
Plating solutions	A	A	D	A	D	A	A	—	A	A	—	—	—	—	A	
Polyglycol	B	B	A	A	A	—	B	—	A	—	—	—	—	—	—	
Potassium carbonate	A	A	—	A	A	A	A	A	A	—	A	—	A	B	A	
Potassium chlorate	B	A	B	A	A	—	A	A	A	A	—	A	—	A	B	
Potassium hydroxide (med)	A	A	B	A	D	—	A	B	D	A	A	D	A	B	A	
Potassium hydroxide (conc)	A	A	C	D	D	—	A	B	D	A	A	D	—	B	B	
Potassium iodide	A	A	—	A	A	A	A	—	A	A	—	—	—	A	B	
Propanol (propyl alcohol)	C	—	A	D	A	A	A	A	A	A	B	A	A	A	A	
Pyridine	C	A	D	D	D	C	C	A	D	A	D	D	A	A	B	
Silicone fluids	A	B	C	B	A	B	A	—	A	A	—	—	A	A	A	
Silicone oils	C	B	C	B	A	B	A	—	A	A	—	—	A	A	A	
Silver nitrate	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A	
Soap solutions	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
Sodium bicarbonate	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A	
Sodium bisulfate	A	A	—	A	A	A	A	A	A	A	—	A	A	D	A	
Sodium bisulfite	A	A	A	A	A	—	A	A	A	A	—	A	—	B	A	
Sodium borate	A	A	A	A	A	—	A	—	A	A	A	A	A	B	B	
Sodium carbonate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
Sodium chlorate	A	A	C	A	A	A	A	—	A	A	A	A	A	B	A	
Sodium chloride	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A	
Sodium ferrocyanide	A	A	—	B	B	—	A	—	A	A	—	—	—	B	A	
Sodium hydrosulfite	B	A	—	A	A	—	A	—	A	—	—	—	—	—	—	
Sodium hydroxide (dil)	A	A	A	A	D	A	A	A	A	A	A	D	A	A	A	
Sodium hydroxide, 25%	A	B	B	C	D	A	A	—	A	A	A	D	A	B	A	
Sodium hydroxide (conc)	—	C	—	C	D	A	A	—	A	A	—	D	A	C	B	
Sodium hypochlorite, <5%	A	A	B	A	A	A	A	A	A	A	A	B	A	A	A	
Sodium hypochlorite, >5%	A	A	B	A	A	A	A	A	A	A	—	—	A	C	B	
Sodium nitrate	A	A	D	A	A	A	A	A	A	A	—	—	A	B	A	
Sodium silicate	A	A	A	A	A	—	A	A	A	A	—	—	A	B	A	
Sodium sulfide	A	A	A	A	A	A	A	A	A	A	—	—	A	C	A	
Sodium sulfite	A	A	A	A	A	A	A	A	A	A	—	D	—	A	B	
Steam, up to 40 psi	C	—	A	D	D	—	D	A	B	A <sup>†</sup>	A	A	A	A	—	
Stearic acid	C	A	B	A	B	C	C	A	A	A	C	A	—	B	C	
Styrene	D	D	D	D	D	D	D	A	A	A	—	D	—	A	—	
Sulfuric acid (dil)	A	A	D	A	A	A	A	A	A	A	A	A	A	D	A	
Sulfuric acid (med)	A	A	D	A	B	A	A	—	A	A	B	C	A	D	A	
Sulfuric acid (conc)	D	A	D	D	D	D	A	C	A	A	D	D	A	C	B	
Sulfurous acid	A	A	D	A	A	A	A	—	B	A	A	—	A	B	A	
Tannic acid	B	A	B	B	D	A	A	—	A	A	—	—	A	B	A	
Tanning liquors	A	B	—	A	A	A	A	—	—	A	—	—	—	A	B	
Tartaric acid	A	A	A	A	A	A	A	A	A	A	A	B	A	C	A	
Tin salts	A	A	B	A	A	A	A	—	—	A	—	—	—	—	A	
Toluene (toluol)	D	D	D	D	D	D	D	A	A	A	D	D	A	A	B	
Trichloroacetic acid	B	A	D	A	A	A	A	—	C	A	—	D	A	D	A	
Trichloroethylene	D	D	D	D	D	D	D	B	A	A	C	D	A	B	D	
Trisodium phosphate	A	A	—	A	A	A	A	—	A	A	—	—	A	B	A	
Turpentine	D	D	D	D	B	D	D	A	A	A	—	—	A	A	B	
Urea	A	A	B	A	A	A	A	—	—	A	C	D	A	A	A	
Uric acid	A	A	—	A	C	A	A	—	—	A	—	—	—	B	—	
Water, fresh	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	
Water, salt	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A	
Xylene	D	D	D	D	D	D	D	A	A	A	D	D	A	A	C	
Zinc chloride	A	A	A	A	A	A	A	A	A	A	A	A	A	D	A	

<sup>†</sup> Do not use the L/S® PTFE-tubing pump head with gases due to excessive heat buildup.

### FREE MASTERFLEX® Tubing Test Kit!

Can't find your chemical  
in the tables?

Request your FREE tubing kit to test compatibility of your chemicals against up to 17 different tubing formulations. Request item 00101-10.

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### TECHNICAL information!

#### Tubing Test Procedure

1. Measure and weigh a sample of tubing.
2. Immerse the sample in the fluid for 72 hours in a closed vessel.
3. Dry sample, then measure and weigh it. Inspect carefully for signs of deterioration such as swelling, embrittlement, cracking, softness, or change of size or weight.
4. If there is no sign of deterioration, test a sample in pump under the conditions of your application.



#### Tubing for Food Products

Liquified food products	Norprene® food	Silicone	Tygon® food
Alcohol	B	—	—
Beer	B	A	—
Brandy	B	—	—
Butter	A	B	A
Carrot	A	—	A
Chocolate syrup	A	—	A
Citric acid	A	A	A
Coffee	A	A	—
Corn oil	—	A	—
Corn syrup	—	—	A
Fish	—	A	A
Fruit juices	A	—	A
Liqueurs	B	B	—
Mayonnaise	A	—	A
Milk	A	A	A
Milk of magnesia	A	—	B
Molasses	A	—	B
Orange syrup	A	B	—
Sauerkraut	A	—	B
Shortening (liquid)	C	B	—
Soft drink concentrate	B	C	—
Sugar	A	A	A
Tomatoes	A	—	A
Vegetable oil	B	B	B
Vinegar	A	A	A
Whiskey	B	A	B
Wines	B	A	B