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H-Cube® Advance/Pro Solvent Resistance

Chemical Compatibility Results

Chemical rating key:

A= Little to no Interaction

B= Slight Interaction

C= Not Recommended

Please note that cyclohexane, toluene and methylene chloride are not recommended solvents as they can interact with the sealing of the HPLC pump.

TFA compatibility with SS-316: at 71 °C (30-day test): 0.07 Mils/yr

Please note that AcCN should not be used as solvent since it may get hydrogenated instead or parallel with your starting material.

Chemical	Rating Stainless Steel	Rating Teflon	Notes
Abletic Acid		Α	
Acetic Acid		Α	
Acetic Acid, 100%	Α		Elevated Temperatures May Reduce Resistance
Acetic Acid, 20%	Α		
Acetic Acid, 60%	Α		
Acetic Acid, 95%	Α		
Acetic Acid, Glacial		Α	
Acetic Anhydride	В	Α	
Acetone	Α	Α	
Acetophenone		Α	
Acetylene	Α		
Acrylic Anhydride		Α	
Aluminum Acetate, 100%	В		
Aluminum Chloride	С	Α	
Aluminum Hydroxide, 10%	В		
Aluminum Sulfate, 100%	В		
Aluminum Sulfate, 50%	Α		
Aluminum, Molten	С		
Allyl Acetate		Α	
Allyl Methacrylate		Α	
Ammonia, 100%	Α		Elevated Temperatures May Reduce Resistance
Ammonia, 40%	Α		Elevated Temperatures May Reduce Resistance
Ammonia, Liquid		Α	
Ammonium Bicarbonate, 100%	С		
Ammonium Bicarbonate, 90%	В		
Ammonium Carbonate, All Concentrations	В		Elevated Temperatures May Reduce Resistance
Ammonium Chloride		Α	



Chemical	Rating Stainless Steel	Rating Teflon	Notes
Ammonium Chloride, 10%	В		Elevated Temperatures May Reduce Resistance
Ammonium Chloride, 25%	В		Elevated Temperatures May Reduce Resistance
Ammonium Chloride, 50%	С		,
Ammonium Hydroxide		Α	
Ammonium Nitrate	Α		
Ammonium Oxalate, 10%	В		
Ammonium Oxalate, 5%	A		
Ammonium Persulfate, 5%	A		
Ammonium Sulfate, 10%	A		
Ammonium Sulfite, 10%	В		
Amyl Acetate	A		
Amyl Chloride	A		
Aniline		Α	
Aniline, 10%	В	A	
Aniline, 10% Aniline, 3%	A		
	A	A	
Aqua Regia		A	
Barium Carbonate	В		
Barium Chloride, 10%	В		
Barium Chloride, 5%	A		
Barium Nitrate	В		
Barium Sulfate	В		
Barium Sulfide, 100%	В		
Beer	Α		
Benzaldehyde		Α	
Benzene	В	Α	
Benzoic Acid, 60%	В		
Benzol	Α		
Benzonitrile		Α	
Benzoyl Chloride		Α	
Benzyl Alcohol		Α	Room Temperature Only
Borax		Α	
Boric Acid		Α	
Boric Acid, 10%	Α		
Boric Acid, 100%	В		
Bromine		Α	
Bromine Water	С		
Bromine, Anhydrous		Α	Room Temperature Only
Butane	В		Room Temperature Only
Butanol	A		Room Temperature Only
Buttermilk	A		
Butyl Acetate	A	Α	
Butyl Amine (n-)	- 1	A	
Butyl Methacrylate		A	
Butyric Acid, 100%	В		
Butyric Acid, 5%	A		
Calcium Carbonate, 100%	В		
Calcium Chlorate, 10%	В		
Calcium Chlorate, 10%	Б	Α.	
	-	Α	
Calcium Chloride, 10%	С		
Calcium Hydroxide, 50%	В		O. L. A.T. DW.
Calcium Hypochlorite, 2%	Α		Subject To Pitting



Chemical	Rating Stainless Steel	Rating Teflon	Notes
Carbolic Acid, 10%	Α		Subject To Pitting
Carbolic Acid, 100%	В		Subject To Pitting
Carbon Bisulfide	В		
Carbon Disulfide		Α	
Carbon Monoxide	Α		
Carbon Tetrachloride	В	Α	Elevated Temperatures Reduce Resistance (Teflon)
Carbonated Water	Α		
Carbonic Acid	В		
Cetane		Α	
Chlorabenzol Concentrate	Α		
Chloric Acid	С		
Chlorinated Water, Saturated	В		Subject To Pitting
Chlorine		Α	
Chlorine Gas	В		
Chlorine, Anhydrous		Α	
Chloroform	Α	Α	
Chlorosulfonic Acid		Α	
Chromic Acid		Α	
Chromic Acid, 10%	В		
Chromic Acid, 40% Conc.	В		Be Cautious When Using With Tubing & Frits; Room Temperature Only
Chromic Acid, 5%	Α		
Chromic Acid, 50%	В		Elevated Temperatures May Reduce Resistance
Chromic Acid, 70%	В		Elevated Temperatures May Reduce Resistance
Cider	A		,,
Citric Acid, 10%	В		
Citric Acid, 100%	В		
Citric Acid, 5% Still	A		
Coffee	Α		
Copper Acetate, 10%	Α		Elevated Temperatures May Reduce Resistance
Copper Carbonate, 10%	В		,,
Copper Chloride, 1%	A		Subject To Pitting
Copper Chloride, 5% Aerated	C		Subject To Pitting
Copper Cyanide, 10%	A		- Canage of the training
Copper Cyanide, 100%	В		
Copper Nitrate	A		
Copper Sulfate, 10%	Α		
Copper Sulfate, 100%	В		
Creosote	A		
Creosote Oil	В		
Cresol (o-)		Α	
Cyanogen Gas	В	A	
Cyclohexane		Α	
Cyclohexanone		A	Room Temperature Only
Detergents		A	Troom Tomporatare Only
Developing Solutions	Α		
Dibutyl Phthalate		Α	Room Temperature Only
Dibutyl Sebacate		A	Troom Temperature Only
Diethyl Carbonate		A	
Diisobutyl Adipate		A	
Dimethyl Ether		A	
Dimethyl Formamide (DMF)			Poom Tomporature Only
סוווופנוואו Formamide (טואור)		Α	Room Temperature Only



Chemical	Rating Stainless Steel	Rating Teflon	Notes
Dimethyl Hydrazine, unsym.		Α	
Dimethyl Sulfoxide		Α	
Dimethylphthalate		Α	
Dioxane		Α	Room Temperature Only
Dyewood Liquor	Α		,
Epsom Salt	Α		
Ether, 100%	Α		
Ethyl Acetate	В	Α	Room Temperature Only
Ethyl Alcohol	_	A	Troom rompositions only
Ethyl Alcohol, 10%	Α	,,	
Ethyl Alcohol, 100%	A		Elevated Temperatures May Reduce Resistance
Ethyl Alcohol, 40%	A		Elevated Temperatures May Reduce Resistance
Ethyl Chloride, Dry	A		Libratou Tomporataros May Florados Floridanos
Ethyl Ether	A	Α	
Ethyl Glycol	В		
Ethyl Hexoate		Α	
Ethylene Bromide	+	A	
Ethylene Chloride	Λ	A	
Ethylene Dichloride	A B		Room Temperature Only
	В	Α	Room remperature Only
Ethylene Glycol		A	
Ethylenediamine			
Ferric Chloride		Α	Oublind To Disting
Ferric Chloride, 1%	A		Subject To Pitting
Ferric Chloride, 5%	С		Subject To Pitting
Ferric Hydroxide	A		
Ferric Nitrate, 10%	В		
Ferric Nitrate, 5%	Α	_	
Ferric Phosphate	_	Α	
Ferric Sulfate, 10%	A		Elevated Temperatures May Reduce Resistance
Ferric Sulfate, 100%	В		
Ferrous Chloride	С		Room Temperature Only
Ferrous Sulfate	В		
Fluorine	Α		
Fluoronaphthalene		Α	
Fluoronitrobenzene		Α	
Formaldehyde	Α	Α	
Formic Acid		Α	
Formic Acid, 5%	Α		
Formic Acid, 75%	В		
Freon 113		Α	Only Tested To 47 Degrees C
Furane		Α	
Furfural	В		
Gallic Acid, 100%	В		
Gallic Acid, 5%	Α		
Gasoline		Α	Room Temperature Only
Gasoline	Α		
Gelatin	Α		
Glycerin, 10%	Α		
Glycerin, 100%	В		
Hexachloroethane		Α	
Hexane		Α	Room Temperature Only
Hydrazine		Α	



Chemical	Rating Stainless Steel	Rating Teflon	Notes
Hydrochloric Acid	С	Α	
Hydrocyanic Acid	В		
Hydrofluoric Acid		Α	
Hydrofluosilic Acid	С		
Hydrogen Peroxide		Α	
Hydrogen Peroxide, 100%	В		
Hydrogen Peroxide, 30%	Α		Elevated Temperatures May Reduce Resistance
Hydrogen Sulfide, 100%	В		<u> </u>
Hydrogen Sulfide, 90%	Α		
lodine, 80%	С		
lodoform	Α		
Iso-Octane		Α	Room Temperature Only
Lactic Acid, 100%	В		
Lactic Acid, 5%	Α		
Lard	Α		
Lead		Α	
Linseed Oil	Α		
Magnesium Chloride	- /\	Α	
Magnesium Chloride, 5%	Α	Α	
Magnesium Chloride, 50%	В		
Magnesium Sulfate, 100%	В		
Magnesium Sulfate, 30%	A		
Malic Acid	В		
Mayonnaise	A		
Mercuric Chloride	C		
Mercuric Chloride, 10%	C		
Mercury		Α	
Mercury, 100%	В		
Methacrylic Acid	В	Α	
Methanol		A	
Methyl Alcohol, 100%	В	A	
Methyl Methacrylate	В	Α	
Methylene Chloride		A	Only Tested To 40 Degrees C
		A	Only rested to 40 Degrees C
Methylethyl Ketone (MEK)	Α	A	
Milk	Α	Α	
Mineral Oil		Α	
Molasses	Α	Α	
Motor Oil	С	Α	
Muriatic Acid			
Mustard	Α		
Naphtha	-	A	
Naphthalene		A	
Naphthols	-	Α	
Naptha, 100%	В		
Naptha, Crude	A		
Nickel Chloride, 100%	В		
Nickel Sulfate, 10%	Α	_	Elevated Temperatures May Reduce Resistance
Nitric Acid		Α	
Nitric Acid, 10%	Α		Elevated Temperatures May Reduce Resistance
Nitric Acid, 100%	В		Elevated Temperatures May Reduce Resistance
Nitric Acid, 90%	Α		Elevated Temperatures May Reduce Resistance
Nitric Acid, Fuming	1	Α	Room Temperature Only



Rating Stainless Steel	Rating Teflon	Notes
	Α	
	Α	Room Temperature Only
	Α	
	Α	
	Α	
	Α	
Α		May Attack When Sulfuric Acid Is Present
В		Room Temperature Only
В		Elevated Temperatures May Reduce Resistance
С		
Α		
В		Elevated Temperatures May Reduce Resistance
	Α	Room Temperature Only
Α		
	Α	
	Α	Elevated Temperatures Reduce Resistance
	Α	
	Α	
Α		
В		
	Α	
В		
A		
_	Δ	
В	7.	
_	Δ	
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A	Λ	
	A	
В		
-		
		Room Temperature Only
Α		
В		Elevated Temperatures May Reduce Resistance
В		
	Steel A B B C A B B A B B B A B B A B C A B B C A B B B B	Steel A A A A A A A A A B B B B C A A A A A B A B A B A B A B A B B A B B A B A B A B A B A B A B A B A C A C A C A B B C A C A B B B B B B C C A B



Chemical	Rating Stainless Steel	Rating Teflon	Notes
Potassium Permanganate, 10%	В		
Potassium Sulfate, 10%	Α		Elevated Temperatures May Reduce Resistance
Potassium Sulfide	В		
Pyridine		Α	
Pyrogallic Acid	В		
Quinine Bisulfate	В		
Quinine Sulfate	В		
Rosin	В		
Sea Water	Α		Subject To Pitting
Sewage	Α		May Attack When Sulfuric Acid Is Present
Silver Chloride	С		
Silver Nitrate	В		
Soap	Α		
Sodium Acetate	В		
Sodium Bicarbonate	A		
Sodium Bisulfate, 10%	A		
Sodium Carbonate, 10%	В		
Sodium Carbonate, 100%	В		
Sodium Carbonate, 5%	A		
Sodium Chloride, 10%	В		
Sodium Chloride, 5% Still	A		
Sodium Hydroxide		Α	
Sodium Hydroxide, 30%	Α	7.	Elevated Temperatures May Reduce Resistance
Sodium Hypochlorite		Α	Librated Temperatures May Reduce Recipiantes
Sodium Hyposulfite, 100%	В		
Sodium Nitrate, 40%	A		
Sodium Nitrate, 50%	В		
Sodium Peroxide		Α	
Sodium Sulfate, 10%	Α	Α	
Sodium Sulfate, 10%	B		
Sodium Sulfate, 5%	A		
Sodium Sulfide, 5%	В		
Sodium Sulfite, 10%	A		Elevated Temperatures May Reduce Resistance
Sodium Thiosulfate	A		Lievaled Temperatures May Neduce Nesistance
Stannic Chloride	C		
Stannous Chloride		Α.	
Stannous Chloride, 10%	Α	A	
Stearic Acid	B		
Sugar Juice	<u>в</u>		
Sulfur	A	Α	
Sulfur Chloride	A B	A	
	В В		
Sulfur Dioxide, 100%	В	Α.	
Sulfuric Acid Sulfuric Acid Aerated	В	Α	Florested Temperatures May Deduce Desister -
	В		Elevated Temperatures May Reduce Resistance
Sulfuric Acid Air Free	В		Elevated Temperatures May Reduce Resistance
Sulfuric Acid, Fuming		Α	Room Temperature Only
Sulfurous Acid, 100%	В		Flavorted Tamenanatures Dedices Dedictions
Sulfuryl Chloride		Α	Elevated Temperatures Reduce Resistance
Tanic Acid, 100%	В		
Tartaric Acid, 50%	В	_	
Tetrabromoethane		Α	



Chemical	Rating Stainless Steel	Rating Teflon	Notes
Tetrahydrofuran (THF)		Α	
Tin, Molten	С		
Toluene		Α	
Transmission Oil		Α	
Tri-Butyl Phosphate		Α	
Trichloracetic Acid		Α	
Trichlorethylene	В	Α	
Tricresyl Phosphate		Α	
Tri-n-Butyl Phosphate		Α	
Varnish	Α		
Vegetable Juices	Α		
Vinegar	Α		
Vinegar Fumes	Α		
Vinyl Methacrylate		Α	
Water		Α	
Xylene		Α	Room Temperature Only
Zinc Chloride		Α	
Zinc Chloride, 50%	Α		Subject To Pitting
Zinc Sulfate, 30%	Α		
Zinc, Molten	С		