ThalesNano Inc.
H-1031 Budapest, Hungary,
Záhony utca 7.

info@thalesnano.com
www.thalesnano.com

H-Cube® Advance/Pro Hastelloy 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.

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

Chemical	Rating Hastelloy	Rating Teflon	Notes
Ableti Acid		**A**	
Acetate Solvents, Crude	**A**		
Acetate Solvents, Pure	**A**		
Acetic Acid		**A**	
Acetic Acid, 10%	**A**		
Acetic Acid, 20%	**A**		
Acetic Acid, 50%	**A**		
Acetic Acid, 80%	**A**		
Acetic Acid, Glacial	**A**	**A**	
Acetic Anhydride	**A**	**A**	
Acetone	**A**	**A**	
Acetophenone		**A**	
Acetylene	**B**		
Acrylic Anhydride		**A**	
Aluminum Chloride	**A**	**A**	
Aluminum Hydroxide, 10%	**A**		
Aluminum Potassium Sulfate, Alum	**B**		
Aluminum Sulfate	**A**		
Allyl Acetate		**A**	
Allyl Methacrylate		**A**	
Ammonia	**A**		Elevated Temperatures May Reduce Resistance
Ammonia Gas	**A**		
Ammonia, Anhydrous	**B**		
Ammonia, Liquid	**A**	**A**	
Ammonium Biflouride	**B**		
Ammonium Carbonate, All Concentrations	**A**		
Ammonium Chloride	**A**	**A**	
Ammonium Hydroxide	**A**	**A**	
Ammonium Nitrate	**A**		
Ammonium Oxalate	**A**		

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Ammonium Persulfate, 5%	A		
Ammonium Sulfate, 10-40%	B		
Amyl Acetate	A		
Amyl Alcohol	B		
Amyl Chloride	A		
Aniline	B	A	
Aqua Regia	C	A	
Arsenic Acid	B		
Barium Carbonate	A		
Barium Chloride	A		
Barium Nitrate	A		
Barium Sulfate	A		
Barium Sulfide, 100%	A		
Beer	A		
Benzaldehyde	B	A	
Benzene	A	A	
Benzoic Acid, 60%	A		
Benzol	A		
Benzonitrile		A	
Benzoyl Chloride		A	
Benzyl Alcohol	B	A	Room Temperature Only
Bismuth-Lead Alloy	A		
Black Liquor	C		
Bleach Liquor	A		
Bleach Solution	A		
Borax	A	A	
Boric Acid	A	A	
Boron Trifluoride	A		
Brackish Water	A		
Brass Pickling Solution	A		
Brass Plating Solution	A		
Brazing Flux	A		
Brine	A		
Bromine		A	
Bromine, Anhydrous		A	Room Temperature Only
Butadiene, Butylene	B		
Butane	B		
Buttermilk	A		
Butyl Acetate	A	A	
Butyl Alcohol	B		
Butyl Amine (n-)		A	
Butyl Methacrylate		A	
Butyric Acid	A		
Cadmium Plating Solution	A		
Calcium Bisulfite	B		
Calcium Carbonate, 100%	A		
Calcium Chlorate, 10%	A		
Calcium Chloride	A	A	
Calcium Hydroxide, 50%	A		
Calcium Hypochlorite, 2%	A		Subject To Pitting
Calcium Sulfate	A		
Carbolic Acid, 10%	A		Subject To Pitting
Carbolic Acid, 100%	A		Subject To Pitting

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Carbon Bisulfide	A		
Carbon Dioxide, Dry	A		
Carbon Dioxide, Wet	B		
Carbon Disulfide	B	A	
Carbon Monoxide	A		
Carbon Tetrachloride	A	A	Elevated Temperatures Reduce Resistance, Teflon
Carbonated Water	A		
Carbonic Acid	A		
Castor Oil	A		
Caustic Potash	A		
Cetane		A	
Chlorabenzol Concentrate	A		
Chloric Acid	A		
Chlorinated Water, Saturated	A		
Chlorine		A	
Chlorine Gas	A		
Chlorine, Anhydrous		A	
Chlorine, Liquid	A		
Chloroform	A	A	
Chloroform	B		
Chlorosulfonic Acid	A	A	
Chrome 40% Plating Solution	A		
Chromic Acid		A	
Chromic Acid, 5%	A		
Chromic Acid, 50%	B		
Cider	A		
Citric Acid	A		
Coffee	A		
Copper Acetate, 10%	A		Elevated Temperatures May Reduce Resistance
Copper Chloride	A		Subject To Pitting
Copper Cyanide	A		
Copper Nitrate	A		
Copper Sulfate	A		
Creosote	A		
Cresol (o-)		A	
Cyclohexane	B	A	
Cyclohexanone		A	Room Temperature Only
Detergents	A	A	
Developing Solutions	A		
Dextrose	B		
Diacetone Alcohol	A		
Dibutyl Phthalate		A	Room Temperature Only
Dibutyl Sebacate		A	
Diesel Fuels	B		
Diethyl Carbonate		A	
Diisobutyl Adipate		A	
Dimethyl Ether		A	
Dimethyl Formamide, DMF		A	Room Temperature Only
Dimethyl Hydrazine, unsym.		A	
Dimethyl Sulfoxide		A	
Dimethylphthalate		A	
Dioxane		A	Room Temperature Only
Dyewood Liquor	A		

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Epsom Salt	A		
Ether, 100%	A		
Ethyl Acetate	B	A	Room Temperature Only
Ethyl Alcohol	A	A	
Ethyl Chloride, Dry	A		
Ethyl Ether		A	
Ethyl Hexoate		A	
Ethylene Bromide		A	
Ethylene Chloride	A		
Ethylene Dichloride	B		
Ethylene Glycol	A	A	
Ethylene Oxide	A		
Ethylenediamine		A	
Fatty Acids	A		
Ferric Chloride		A	
Ferric Chloride, 1%	A		Subject To Pitting
Ferric Chloride, 5%	A		Subject To Pitting
Ferric Hydroxide	A		
Ferric Nitrate	A		
Ferric Phosphate		A	
Ferric Sulfate	A		Elevated Temperatures May Reduce Resistance
Ferrous Chloride	A		Room Temperature Only
Ferrous Sulfate	B		
Fluboric Acid	A		
Fluorine	A		
Fluoronaphthalene		A	
Fluoronitrobenzene		A	
Formaldehyde	A	A	
Formic Acid	A	A	
Freon 113		A	Only Tested To 47 Degrees C
Freon 12	A		
Freon 22	B		
Fruit Juices	A		
Fuel Oil	B		
Furane		A	
Furfural	B		
Gallic Acid	A		
Gasoline	A	A	Room Temperature Only
Gelatin	A		
Glue	A		
Glycerine	A		
Gold Plating Solution	A		
Heptane	A		
Hexachloroethane		A	
Hexane	A	A	Room Temperature Only
Hydrazine		A	
Hydrochloric Acid	A	A	
Hydrocyanic Acid	B		
Hydrofluoric Acid		A	
Hydrofluosilic Acid	B		
Hydrogen Chloride, Dry Gas	A		
Hydrogen Gas	A		

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Hydrogen Peroxide	B	A	
Hydrogen Sulfide	A		
Iodine, 80%	A		
Iodoform	A		
Iso-Octane		A	Room Temperature Only
Isopropyl Alcohol	B		
Jet Fuel, JP4, JP5	A		
Kerosene	B		
Ketones	A		
Lactic Acid, 25%	A		
Lactic Acid, 80%	B		
Lard	A		
Lead		A	
Lead Acetate	B		
Lead Chloride	B		
Lead Sulfate	B		
Linoleic Acid	B		
Linseed Oil	B		
Magnesium Chloride	A	A	
Magnesium Hydroxide	A		
Magnesium Nitrate	A		
Magnesium Sulfate	A		
Maleic Acid	B		
Mayonnaise	A		
Mercuric Chloride	A		
Mercuric Cyanide	B		
Mercury	A	A	
Methacrylic Acid		A	
Methane	A		
Methanol	A	A	
Methyl Alcohol, Methanol	A		
Methyl Ethyl Ketone, MEK	B	A	
Methyl Isobutyl Ketone	B		
Methyl Methacrylate		A	
Methylene Chloride	C	A	Only Tested To 40 Degrees C
Milk	A		
Mineral Oil		A	
Molasses	A		
Motor Oil		A	
Mustard	A		
Naphtha		A	
Naphthalene		A	
Naphthols		A	
Naptha	B		
Naptha, Crude	A		
Napthalene	B		
Nickel Plating Solution	A		
Nickel Sulfate, 10%	A		Elevated Temperatures May Reduce Resistance
Nitric Acid		A	
Nitric Acid, 100%	B		
Nitric Acid, 30%	A		
Nitric Acid, 50%	A		

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Nitric Acid, Fuming		A	Room Temperature Only
Nitro-2-Methyl Propanol (2-)		A	
Nitrobenzene		A	Room Temperature Only
Nitro-Butanol (2-)		A	
Nitrogen Tetroxide		A	
Nitromethane		A	
Octadecyl Alcohol (n-)		A	
Oils, Crude & Vegetable	A		May Attack When Sulfuric Acid Is Present
Oleic Acid	B		
Oxalic Acid, 5%	A		
Ozone		A	Room Temperature Only
Paraffin	B		
Pentachlorobenzamide		A	
Perchloroethylene	B	A	Elevated Temperatures Reduce Resistance
Perfluoroxylene		A	
Phenol, 10%	A	A	
Phenol, Carbolic Acid	A		
Phosphoric Acid		A	
Phosphoric Acid, 25-50%	A		
Phosphoric Acid, 5%	A		
Phosphoric Acid, 50-85%	A		
Phosphorus Pentachloride		A	
Phthalic Acid		A	
Phthalic Anhydride	A		
Picric Acid	B		
Pinene		A	
Piperidene		A	
Polyacrylonitrile		A	
Potassium Acetate		A	
Potassium Bicarbonate, 30%	B		
Potassium Carbonate, 50%	B		
Potassium Chlorate	A		
Potassium Chloride, 5%	A		
Potassium Chromate, 30%	B		
Potassium Cyanide Solution, 30%	B		
Potassium Dichromate, 30%	B		
Potassium Ferricyanide, 5%	A		
Potassium Ferrocyanide, 5%	A		
Potassium Hydroxide		A	
Potassium Hydroxide, 5%	A		
Potassium Hydroxide, 90%	B		
Potassium Nitrate, 80%	B		
Potassium Permanganate		A	
Potassium Permanganate, 20%	A		
Potassium Sulfate, 10%	A		Elevated Temperatures May Reduce Resistance
Propane	B		
Propyl Alcohol	A		
Propylene Gylcol	B		
Pyridine		A	
Pyrogallic Acid	B		
Refined Gasoline	B		
Sea Water	A		Subject To Pitting

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Sewage	A		May Attack When Sulfuric Acid Is Present
Silver Plating Solution	A		
Soap	A		
Soap Solutions	A		
Sodium Bicarbonate, 20%	A		
Sodium Bisulfate, 10%	A		
Sodium Bisulfite	B		
Sodium Borate	B		
Sodium Carbonate, 5%	A		
Sodium Chlorate, 50%	A		
Sodium Chloride, 30%	B		
Sodium Chloride, 5% Still	A		
Sodium Cyanide	B		
Sodium Dichromate	A		
Sodium Hydroxide		A	
Sodium Hydroxide, 30%	A		Elevated Temperatures May Reduce Resistance
Sodium Hydroxide, 50%	A		
Sodium Hydroxide, 70%	A		
Sodium Hypochlorite		A	
Sodium Nitrate, 40%	A		
Sodium Perborate, 10%	B		
Sodium Peroxide		A	
Sodium Peroxide, 10%	B		
Sodium Silicate	B		
Sodium Sulfate, 10%	A		
Sodium Sulfate, 5%	A		
Sodium Sulfide, 50%	B		
Sodium Sulfite, 10%	A		Elevated Temperatures May Reduce Resistance
Sodium Thiosulfate	A		
Sour Gasoline	B		
Stannous Chloride		A	
Stannous Chloride, 10%	A		
Stearic Acid	A		
Stoddard's Solvent	A		
Sugar Juice	A		
Sulfate Liquors	B		
Sulfite Liquors	A		
Sulfur	A	A	
Sulfur Dioxide, Dry	B		
Sulfur Trioxide	B		
Sulfuric Acid		A	
Sulfuric Acid, 100%	A		
Sulfuric Acid, Fuming		A	Room Temperature Only
Sulfuric Acid, TO 10%	A		
Sulfuryl Chloride		A	Elevated Temperatures Reduce Resistance
Tanning Liquors	A		
Tartaric Acid	B		
Tetrabromoethane		A	
Tetrachloroethylene		A	
Tetrahydrofuran, THF	A	A	
Tin Plating Solution	A		
Titanium Tetrachloride	B		

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Toluene	A	A	
Tomato Juice	B		
Transmission Oil		A	
Tri-Butyl Phosphate		A	
Trichloracetic Acid		A	
Trichlorethylene		A	
Trichloroethylene	A		
Tricresyl Phosphate		A	
Triethanolamine	B		
Tri-n-Butyl Phosphate		A	
Trisodium Phosphate, 10%	A		
Turpentine	B		
Varnish	A		
Vegetable Juices	A		
Vegetable Oil	A		
Vinegar	A		
Vinegar Fumes	A		
Vinyl Methacrylate		A	
Water		A	
Water, Distilled	A		
Water, Sea	A		
Whiskey	A		
White Liquor, Pulp	B		
Wine	A		
Xylene	A	A	Room Temperature Only
Zinc Chloride		A	
Zinc Chloride, 50%	A		Subject To Pitting
Zinc Sulfate, 30%	A		