thermoscientific

Nalgene Plastic Labware Chemical Resistance Reference Guide

Groups: Labware Olefin Polymers (LDPE, HDPE, PP, PPCO, PMP, FLPE); Labware Fluoropolymers (FEP, PFA, ETFE); Other Labware Polymers (PETG, PC, PSF, PS, PMMA, RESMER™); O-Rings & Gaskets (TPE, Silicone); Tubing (PVC, Silicone, PFA, FEP, PUR, LLDPE, PP). Each cell: 20 / 50 (°C).

Chemical, Concentration	CAS No.	LDPE 20 50	HDPE 20 50	PP 20 50	PPCO 20 50	PMP 20 50	FLPE 20 50	FEP 20 50	PFA 20 50	ETFE 20 50	PETG 20 50	PC 20 50	PSF 20 50	PS 20 50	PMMA 20 50	RESMER™ 20 50	TPE 20 50	Silicone 20 50	PVC 20 50	Silicone 20 50	PFA 20 50	FEP 20 50	PUR 20 50	LLDPE 20 50	PP 20 50
Acetaldehyde, 10%	75-07-0	GN	EE	EG	EG	--	EE	EE	EE	EE	--	FN	FN	NN	--	GG	GF	EG	--	EG	EE	EE	--	--	EG
Acetaldehyde, 100%	75-07-0	GN	GF	GN	GN	GN	EG	EE	EE	EG	--	NN	NN	NN	NN	GG	GF	FF	NN	FF	EE	EE	NN	GN	GN
Acetamide, pure	60-35-5	EE	EE	EG	EE	EE	GG	EE	EE	EE	--	NN	NN	EE	--	EE	GF	NN	NN	NN	EE	EE	NN	EE	EG
Acetic Acid, <5%	64-19-7	EE	EE	EE	EE	EE	EE	EE	EE	EE	FN	EG	EE	EG	EG	EE	EG	EG	EG	EG	EE	EE	GF	EE	EE
Acetic Acid, 20%	64-19-7	GF	EG	EE	EE	EE	EG	EE	EE	EE	NN	GF	EE	EG	FN	EG	EG	FF	GN	FF	EE	EE	FN	EE	EE
Acetic Acid, Glacial	64-19-7	GN	EG	EG	EG	EG	EG	EE	EE	EG	NN	NN	GF	FN	NN	FN	GF	NN	NN	NN	EE	EE	NN	EG	EG
Acetone, pure	67-64-1	GN	FN	FN	NN	EE	EG	EE	EE	EG	NN	NN	FN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	GG	EG
Acetonitrile, pure	75-05-8	EE	EE	EG	FN	FN	EE	EE	EE	EG	--	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	EE	EG
Alconox™ detergent, pure	N/A	EE	EE	EE	EE	EE	EE	EE	EE	EE	GF	FN	GF	EG	EN	EE	GF	EG	EF	EG	EE	EE	GF	EE	EE
Aluminum Chloride, Concentrated	7446-70-0	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EG	EE	EE	EE	EG	FF	GG	FF	EE	EE	EG	EE	EE
Aluminum Hydroxide Acetate, pure	142-03-0	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	NN	GN	NN	EE	EE	EG	EG	EE
Aluminum Sulfate, 5%	10043-01-3	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EG	EE	EE
Ammonia, Aqueous Solution	7664-41-7	EE	EE	EE	EE	EE	FF	EE	EE	EG	--	NN	GF	EG	NN	EG	GF	NN	GF	NN	EE	EE	FN	EE	EE
Ammonium Acetate, Saturated	631-61-8	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	GG	EE	EE	EE	EE	EG	EG	GN	EG	EE	EE	GF	EE	EE
Ammonium Chloride, pure	12125-02-9	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EE	E-	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Ammonium Dihydrogen Phosphate, 1M	7722-76-1	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	GG	EE	GG	EG	EG	EG	EE	EE	GF	EE	EE
Ammonium Fluoride, Saturated	12125-01-8	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	NN	EE	EE	NN	EE	EG	FF	EG	FF	EE	EE	EG	EE	EE
Ammonium Hydroxide, 10%	1336-21-6	EE	EE	EE	EE	EE	FF	EE	EE	EE	FN	NN	EG	EF	EG	EG	EG	EG	GF	EG	EE	EE	GF	EE	EE
Ammonium Hydroxide, Concentrated	1336-21-6	FF	FF	FF	FF	GF	GG	FF	FF	FF	NN	NN	GG	GG	FG	EG	EG	EG	GF	FG	FF	FF	GN	FG	FG
Ammonium Phosphate, Monobasic, pure	7722-76-1	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	--	EE	EG	EG	EG	EG	EE	EE	GF	EE	EE
Ammonium Sulfate, 77%	7783-20-2	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	--	EE	EG	EG	EG	EG	EE	EE	GF	EE	EE
Amyl Acetate, pure	628-63-7	GF	EG	GN	GF	GF	EE	EE	EE	EE	--	NN	NN	NN	NN	--	FN	NN	NN	NN	EE	EE	NN	GF	GF
Aqua Regia, pure	8007-56-5	NN	NN	NN	NN	NN	NN	EE	EE	EG	NN	NN	NN	NN	NN	NN	NN	NN	NN	NN	EE	EE	NN	NN	NN
Ascorbic Acid, pure	50-81-7	EE	EE	EE	EE	--	EE	EE	EE	EE	--	EE	EE	EE	--	--	--	EG	--	EG	EE	EE	--	--	EE
Barium Hydroxide, pure	17194-00-2	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE
Benzalkonium Chloride, 0.03M	8001-54-5	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EN	EE	FF	EG	EE	EG	EE	EE	FN	EE	EE
Benzoic Acid, Saturated	65-85-0	EE	EE	EG	EE	EG	EE	EE	EE	EE	--	EG	EG	GG	EE	GG	GF	FF	EG	FF	EE	EE	NN	EE	EG
Benzoyl Peroxide, pure	94-36-0	EG	--	GG	--	--	--	EE	EE	EG	--	--	--	NN	--	--	--	--	--	--	EE	EE	--	--	GG
Benzyl Alcohol, 1%	100-51-6	EG	EE	EE	EG	EE	EE	EE	EE	EE	GF	NN	GF	NN	FN	FN	GF	EG	FN	EG	EE	EE	FF	NN	NN
Benzyl Alcohol, pure	100-51-6	NN	FN	GF	NN	--	EE	EE	EE	EE	--	NN	NN	NN	FN	FN	GF	FF	FN	FF	EE	EE	NN	NN	NN
Bromine, pure	7726-95-6	NN	FN	NN	NN	NN	FN	EE	EE	EE	NN	FN	FN	NN	FN	NN	NN	NN	NN	NN	EE	EE	NN	NN	NN
Butanol, 100%	71-36-3	EE	EE	EE	EE	EG	EE	EE	EE	EE	FF	EE	EE	GG	NN	EE	NN	FF	GN	FF	EE	EE	NN	EE	EE
Butyl Ether, pure	142-96-1	NN	--	GF	--	--	EG	EE	EE	EG	--	NN	NN	NN	NN	--	--	NN	--	NN	EE	EE	--	--	GF
Butyl Phthalate, pure	84-74-2	FN	FN	FN	--	GG	EG	EE	EE	EG	--	GN	GN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	--	FN
Butyric Acid, 20%	107-92-6	FF	GF	FF	FF	FF	GF	EE	EE	EE	--	FF	EE	FF	FF	FF	EG	FF	FF	FF	EE	EE	FF	FF	FF
Calcium Carbonate, pure	471-34-1	EE	EE	EE	EE	EE	FF	EE	EE	EE	EG	EG	EE	EE	GF	EG	EG	EG	EE	EG	EE	EE	EG	EE	EE
Calcium Hydroxide, 10%	1305-62-0	EE	EE	EE	EE	EE	GF	EE	EE	EE	--	FN	EG	EG	GF	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Calcium Nitrate, 50%	10124-37-5	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	--	EG	EG	EG	EG	EE	EE	--	--	EE
Calcium Sulfate, pure	7778-18-9	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EG	EG	EG	EE	EE	EG	EE	EE
Carbon Dioxide gas, pure	#N/A	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EG	EE	EE	EG	EE	EE	EG	EE	EE
Carbon Tetrachloride, pure	56-23-5	FN	GF	GF	NN	NN	EG	EE	EE	EE	NN	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	FN	GF
Cesium Chloride, pure	7647-17-8	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Chloroacetic Acid, pure	79-11-8	EE	EE	EG	EG	EG	EE	EE	EE	EE	--	FN	FN	GN	NN	GF	FN	NN	NN	NN	EE	EE	NN	EE	EG
Chloroform, pure	67-66-3	FN	FN	NN	NN	NN	GG	EE	EE	EG	NN	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	FN	NN
Chlorosulfonic Acid, Saturated	7790-94-5	NN	NN	NN	--	--	NN	EE	EE	FN	--	NN	NN	NN	NN	NN	NN	NN	NN	NN	EE	EE	NN	--	NN
Chromic Acid, 10%	7738-94-5	EE	EE	EE	EE	EE	EE	EE	EE	EE	NN	GF	GF	GF	FN	EG	NN	NN	EN	NN	EE	EE	NN	EE	EE
Chromic Acid, 50%	7738-94-5	EE	GF	GF	GF	GF	GF	EE	EE	EE	NN	FN	FN	FF	NN	FN	NN	NN	GN	NN	EE	EE	NN	EE	GF
Chromic Acid, 80%	7738-94-5	NN	NN	FN	NN	FF	NN	EE	EE	EG	NN	NN	NN	FF	NN	NN	NN	NN	NN	NN	EE	EE	NN	FN	NN
Chromium (III) Oxide, pure	1308-38-9	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE
Chromium (III) Sulfate, 100%	15244-38-9	EE	EE	EE	EE	--	EE	EE	EE	EE	EG	EE	EE	EE	EE	--	--	EG	--	EG	EE	EE	--	--	EE
Citric Acid, 0.52M	77-92-9	EE	EE	EE	EE	EE	EE	EE	EE	EE	GF	EE	EE	EE	EG	EE	EE	EG	GF	EG	EE	EE	GF	EE	EE
Citric Acid, pure	77-92-9	GF	EG	EE	EE	EE	EG	EE	EE	EE	--	EE	EE	EE	EG	EG	EE	EG	FN	EG	EE	EE	GF	EE	EE
Copper (II) Carbonate Basic, pure	12069-69-1	EE	EE	EE	--	--	EE	EE	EE	EE	EG	EG	EE	EE	EE	--	--	EG	--	EG	EE	EE	--	--	EE
Copper (II) Nitrate, 50%	19004-19-4	EE	EE	EE	--	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Corn Oil, pure	8001-29-4	GG	EE	EE	EE	EE	EG	EE	EE	EE	GN	EE	EE	EG	EE	EF	FN	EG	GF	EG	EE	EE	EE	EE	EG
Cresyl Violet Acetate, 0.1%	10510-54-0	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	GG	EE	GG	GG	GG	GG	EE	EE	GG	EE	EE
Cyclohexanol, pure	108-93-0	FF	EE	EF	--	EG	EE	EE	EE	EE	--	FN	EG	EG	NN	EE	--	NN	NN	NN	EE	EE	--	--	GN
Decane, pure	124-18-5	FN	FN	FN	FN	FN	GF	EE	EE	EE	--	FN	GF	FN	NN	GF	NN	FF	FN	FF	EE	EE	GF	--	FN
Deionized/Distilled Water, pure	#N/A	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EG	EE	EE	EE	GF	EE	EE
Di-(2-ethylhexyl) Phthalate, pure	117-81-7	FN	GN	GG	EG	EE	EG	EE	EE	EF	G-	NN	FN	NN	FN	FN	EG	NN	NN	NN	EE	EE	NN	--	GF
Dibasic Sodium Phosphate, pure	7558-79-4	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Diethanolamine, pure	111-42-2	--	--	EE	--	--	GF	EE	EE	EG	--	FN	FN	EG	--	EE	--	FF	--	FF	EE	EE	--	--	EE
Diethyl Ether, pure	60-29-7	NN	FN	NN	NN	NN	GF	EE	EE	EG	E-	NN	NN	NN	NN	--	FN	NN	NN	NN	EE	EE	NN	NN	NN
Diethylene Triamine, pure	111-40-0	NN	NN	GN	FN	--	NN	EE	EE	EG	--	NN	NN	--	FN	EG	EG	FF	NN	FF	EE	EE	EG	NN	GN
Diethylpyrocarbonate, pure	1609-47-8	EE	EE	EE	EE	--	EE	EE	EE	EE	--	FN	GF	EG	EG	EE	--	EG	--	EG	EE	EE	--	EG	EG
Dimethyl Acetamide, pure	127-19-5	FN	EE	EE	EE	GF	GG	EE	EE	EG	--	NN	NN	NN	--	--	--	NN	NN	NN	EE	EE	NN	FN	EE
Dimethylformamide, pure	68-12-2	EE	EE	EE	EE	EE	GG	EE	EE	GG	NN	NN	NN	NN	NN	--	NN	FN	NN	FN	EE	EE	NN	EE	EE
Dimethylsulfoxide, pure	67-68-5	NN	EE	EE	EE	EE	EE	EE	EE	EG	NN	NN	NN	NN	NN	EE	NN	NN	NN	NN	EE	EE	NN	GF	EE
Dioxane, pure	123-91-1	GF	GG	FN	GF	FN	EE	EE	EE	EF	--	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	GF	GF
Ethanol, 10%	64-17-5	EE	EE	EE	EE	EE	EE	EE	EE	EE	GF	EE	EE	EG	EF	EE	EE	FF	GF	FF	EE	EE	FN	EE	EE
Ethanol, 100%	64-17-5	EG	EE	EE	EE	EG	EE	EE	EE	EE	FN	GF	EG	GG	NN	EE	EG	FF	FN	FF	EE	EE	NN	EG	EG
Ethanol, 50%	64-17-5	EG	EE	EE	EE	EG	EE	EE	EE	EE	FN	GG	EG	GG	NN	EE	EE	FF	GF	FF	EE	EE	FN	EG	EG
Ethanolamine, pure	141-43-5	GF	GF	EE	--	--	GF	EE	EE	EG	--	NN	NN	--	--	EG	FN	FF	--	FF	EE	EE	--	--	EE
Ethidium Bromide, 0.1%	1239-45-8	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	GG	EG	GG	EE	EE	EE	EE	EE
Ethyl Acetate, pure	141-78-6	EE	EE	EG	GF	EG	EE	EE	EE	EG	NN	NN	NN	NN	NN	--	GF	FF	NN	FF	EE	EE	NN	EE	EG
Ethylene Diamine Tetraacetic Acid, pure	6381-92-6	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EG	EE	EE	EG	EE	EE
Ethylene Diamine, pure	107-15-3	NN	FN	GN	GN	FF	NN	EE	EE	EF	--	NN	GF	GG	NN	EG	EG	FF	NN	FF	EE	EE	EG	NN	GN
Ethylene Dichloride, pure	107-06-2	FN	NN	FN	NN	NN	FF	EE	EE	EF	NN	NN	NN	NN	NN	FN	FN	NN	NN	NN	EE	EE	NN	GN	NN
Ethylene Glycol, pure	107-21-1	EE	EG	EE	EE	EE	EE	EE	EE	EE	E-	EG	EE	EE	GF	EE	EE	EG	FN	EG	EE	EE	EG	EE	EE
Fatty Acids, Saturated, pure	N/A	GF	EE	EG	EG	EG	EE	EE	EE	EE	GF	GF	GF	EG	EG	EE	FN	FN	EG	FN	EE	EE	GF	EG	EE
Ferric Chloride, pure	7705-08-0	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	FF	GG	FF	EE	EE	EG	EE	EE
Ferrous Nitrate, pure	13520-68-8	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	GF	EG	GF	EE	EE	EG	EE	EE
Ficoll-Hypaque™, pure	N/A	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EG	EE	EE	EG	EE	EE
Formalin, 1.7M	50-00-0	EE	EE	EE	EE	EG	EE	EE	EE	EE	--	EE	EE	GG	EG	GG	GF	FF	GF	FF	EE	EE	--	EE	EE
Formalin, 10M	50-00-0	EG	EG	EE	EG	EG	EE	EE	EE	EE	FN	EE	EE	GG	EF	GG	NN	FF	FN	FF	EE	EE	NN	EG	EG
Formalin, 10%	50-00-0	EE	EE	EE	EE	EG	EE	EE	EE	EG	--	EE	EE	GG	EG	GG	GF	FF	GN	FF	EE	EE	--	EE	EE
Formalin, 30%	50-00-0	EG	EG	EE	EG	EG	EE	EE	EE	EE	FN	EE	EE	GG	EF	GG	NN	FF	FN	FF	EE	EE	NN	EG	EG
Formalin, pure	50-00-0	EG	EG	EE	EG	EG	EE	EE	EE	EE	FN	EG	EG	GG	EF	GG	NN	FF	FN	FF	EE	EE	NN	EG	EG
Formamide, pure	75-12-7	GG	EE	EG	EG	GG	GG	EE	EE	GG	NN	NN	NN	NN	NN	--	NN	NN	NN	NN	EE	EE	NN	GG	GG
Formic Acid, 10%	64-18-6	EG	EE	EE	EE	EG	EE	EE	EE	EE	--	EG	EE	EE	EG	EE	EG	FF	EG	FF	EE	EE	FN	EG	EE
Formic Acid, 85%	64-18-6	GG	EE	EG	EG	EE	EE	EE	EE	EE	--	FN	GF	GF	NN	EG	GF	FF	FN	FF	EE	EE	NN	EG	EG
Glycerol, pure	56-81-5	EE	EE	EE	EE	EE	EE	EE	EE	EE	--	EE	EE	EE	E-	EE	EG	EG	FG	EG	EE	EE	EG	EE	EE
Guanidine Hydrochloride, pure	50-01-1	EG	EE	EE	EE	EE	EE	EE	EE	EE	--	EE	EE	GG	E-	GG	EE	EG	--	EG	EE	EE	--	EE	EE
Guanidine Isothiocyanate, pure	593-84-0	EG	EE	EE	EE	EE	EE	EE	EE	EE	--	EE	EE	GG	E-	GG	EE	EG	--	EG	EE	EE	--	EE	EE
Heptane, pure	142-82-5	NN	FF	FN	--	FF	GG	EE	EE	EE	E-	FN	GG	NN	EE	GF	NN	NN	NN	NN	EE	EE	EG	--	FF
n-Heptane, pure	142-82-5	FN	GF	FN	FF	FF	GG	EE	EE	EE	E-	FN	GG	NN	E-	GF	NN	NN	NN	NN	EE	EE	EG	FN	FF
Hydrochloric Acid, 1N	7647-01-0	EE	EE	EE	EE	EE	EE	EE	EE	EE	GF	EG	EG	EE	G-	EE	EG	EG	GF	EG	EE	EE	FN	EG	EE
Hydrochloric Acid, 37%	7647-01-0	EE	EE	EG	EE	EE	EE	EE	EE	EE	FN	FN	FN	EG	NN	EE	GF	NN	FN	NN	EE	EE	NN	EE	EG
Hydrochloric Acid, 6N	7647-01-0	EE	EE	EG	EE	EE	EE	EE	EE	EE	GF	GF	GF	EG	NN	EE	GF	NN	FN	NN	EE	EE	NN	EE	EG
Hydrofluoric Acid, pure	7664-39-3	EG	EE	EG	EE	EG	EE	EE	EE	EG	NN	NN	FN	FN	NN	NN	NN	NN	FN	NN	EE	EE	NN	EE	EG
Hydrogen Peroxide, 3%	7722-84-1	EE	EE	EE	EE	EE	EE	EE	EE	EE	G-	EE	EE	EG	EF	EG	EG	EG	EG	EG	EE	EE	EG	EE	EE
Hydrogen Peroxide, 30%	7722-84-1	EG	EE	EF	EG	EG	EE	EE	EE	EE	G-	EE	EE	EG	FN	EG	GF	EG	GN	EG	EE	EE	FN	EE	EG
Iodine Crystals, pure	7553-56-2	NN	NN	GF	FN	GN	NN	EE	EE	EG	--	GN	EF	GF	NN	EG	EG	FN	NN	FN	EE	EE	NN	NN	FN
Iodine, 10%	7553-56-2	EG	GF	EE	EG	EE	GF	EE	EE	EG	--	GN	EF	GF	NN	EG	EG	FN	NN	FN	EE	EE	NN	NN	EE
Isoamyl alcohol, pure	123-51-3	EG	--	EG	--	--	EE	EE	EE	EE	--	NN	NN	--	--	--	--	--	--	--	EE	EE	--	--	EG
Iso-Butanol, 100%	78-83-1	EE	EE	EE	EE	EG	EE	EE	EE	EE	FN	EG	EG	GG	NN	EE	FN	EG	GN	EG	EE	EE	NN	EE	EE
Isooctane, pure	540-84-1	EE	EF	FN	NN	--	EG	EE	EE	EE	G-	NN	FN	GF	EE	GF	NN	NN	FN	NN	EE	EE	GF	--	FN
Isopropyl Alcohol, 100%	67-63-0	EE	EE	EE	EE	EE	EE	EE	EE	EE	FN	GF	EG	EG	NN	EE	FN	EG	GN	EG	EE	EE	NN	EE	EE
Lactic Acid, 100%	50-21-5	EG	EE	EG	EG	EG	EE	EE	EE	EE	NN	EG	EG	EE	EE	EE	GF	GF	GF	GF	EE	EE	NN	EG	EG
Lead Nitrate, Aqueous Solution	10099-74-8	EE	EE	EE	EE	--	EE	EE	EE	EE	EG	EE	EE	--	EE	--	--	EG	--	EG	EE	EE	--	--	EE
Lithium Hydroxide, 5%	1310-65-2	EE	EE	EE	EE	EE	FN	EE	EE	EE	--	FN	EG	EE	EG	EG	EG	FF	GF	FF	EE	EE	NN	EE	EE
Magnesium Carbonate, pure	546-93-0	EE	EE	EE	EE	EE	GG	EE	EE	EE	EG	EE	EE	EE	EG	EE	EG	EG	EE	EG	EE	EE	EG	EE	EE
Magnesium Hydroxide, pure	1309-42-8	EE	EE	EE	EE	EE	FF	EE	EE	EE	--	GF	GF	EE	--	EG	EE	EG	GG	EG	EE	EE	EG	--	EE
Magnesium Sulfate, pure	7487-88-9	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Maleic Acid, pure	110-16-7	EE	EE	EE	--	--	EE	EE	EE	EE	--	EG	EG	EG	GF	EG	FN	FF	EF	FF	EE	EE	GF	EE	EE
Mercuric Chloride, pure	7487-94-7	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EG	EE	EE	EE	GF	NN	GF	EE	EE	EG	EE	EE
Mercury, pure	7439-97-6	EE	EE	EE	EE	EE	EE	EE	EE	EE	--	NN	EE	EE	EE	--	EE	NN	GN	NN	EE	EE	EG	EE	EE
Methane Sulfonic Acid, pure	75-75-2	GF	EE	EE	EE	EE	EE	EE	EE	EE	--	GF	GF	--	--	EG	FN	NN	--	NN	EE	EE	NN	EG	EE
Methanol, 100%	67-56-1	EG	EE	EE	EE	EE	EE	EE	EE	EE	NN	GF	EG	FF	NN	EG	EG	EG	FN	EG	EE	EE	NN	EE	EE
Methanol, 15%	67-56-1	EG	EE	EE	EE	EE	EE	EE	EE	EE	GF	EF	EE	GF	EF	EG	EG	EG	GF	EG	EE	EE	FN	EE	EE
Methyl Amine, pure	74-89-5	NN	NN	GN	--	--	NN	EE	EE	EE	--	NN	NN	--	--	EG	NN	FN	NN	FN	EE	EE	--	GN	GN
Methyl Ethyl Ketone, pure	78-93-3	GF	FN	GF	EG	FN	EG	EE	EE	EE	G-	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	EG	GF
Methyl Isobutyl Ketone, pure	108-10-1	GF	FN	GF	GF	FF	FF	EE	EE	EG	NN	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	GF	GF
Methyl Salicylate, pure	119-36-8	NN	FN	FN	--	--	EG	EE	EE	EG	--	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	FN	NN
Methylene Chloride, pure	75-09-2	NN	FN	FN	FN	FN	GF	EE	EE	GF	NN	NN	NN	NN	NN	FN	FN	NN	NN	NN	EE	EE	NN	FN	FN
Mineral Oil, pure	8012-95-1	GN	EE	GF	EG	EG	EE	EE	EE	EE	GN	EE	EE	EE	EN	EE	NN	EG	FN	EG	EE	EE	EG	GN	EG
Monobasic Sodium Phosphate, pure	7558-80-7	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EE	EG	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Nalgene L-900 detergent, pure	N/A	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EN	EE	EG	EG	EE	EG	EE	EE	EG	EE	EE
Naphthalene, pure	91-20-3	NN	FN	EG	FN	EG	GF	EE	EE	EE	--	NN	NN	EN	NN	FN	NN	NN	NN	NN	EE	EE	GF	--	EG
n-Butyl Acetate, pure	123-86-4	GF	EG	FN	GF	GF	EG	EE	EE	EG	--	NN	NN	NN	NN	--	GF	NN	NN	NN	EE	EE	NN	GF	FN
n-Dodecanol, pure	112-53-8	GG	GG	EE	--	--	EE	EE	EE	EE	--	--	--	EE	--	EE	--	FF	--	FF	EE	EE	--	--	EE
n-Hexane, pure	110-54-3	NN	GF	GF	GF	FN	EG	EE	EE	EE	G-	FN	EG	NN	E-	GF	NN	NN	NN	NN	EE	EE	EG	NN	GF
Nickel Acetate, Aqueous Solution	373-02-4	EE	EE	EE	--	--	EE	EE	EE	EE	EG	EG	EE	EE	--	--	--	--	--	--	EE	EE	--	--	EE
Nitric Acid, 10%	7697-37-2	EE	EE	EE	EE	EE	EE	EE	EE	EE	FN	GG	GG	EG	GN	GN	NN	FF	EF	FF	EE	EE	NN	EE	EE
Nitric Acid, 50%	7697-37-2	GF	FN	FN	FN	FN	FN	EE	EE	EG	NN	FF	FF	FN	NN	FN	NN	NN	FN	NN	EE	EE	NN	GN	FN
Nitric Acid, 70%	7697-37-2	FN	FN	NN	NN	FN	FN	EE	EE	FN	NN	FN	FN	NN	NN	NN	NN	NN	NN	NN	EE	EE	NN	FN	NN
Nitrogen, Gas	7727-37-9	EE	EE	EE	EE	--	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE
N-Methyl Pyrrolidone, pure	872-50-4	FN	GN	FN	NN	FN	EG	EE	EE	--	NN	NN	NN	NN	--	NN	--	NN	--	NN	EE	EE	NN	NN	NN
NOCHROMIX™, pure	N/A	NN	NN	NN	NN	FF	NN	EE	EE	EG	NN	NN	NN	NN	NN	NN	NN	NN	NN	NN	EE	EE	NN	FN	NN
Oleic Acid, pure	112-80-1	FN	GF	EE	EE	--	GF	EE	EE	NN	EE	EG	FN	EF	EG	FN	NN	NN	NN	NN	EE	EE	GF	--	EE
Oxalic Acid, 50%	144-62-7	GF	EE	EG	EE	EG	EG	EE	EE	EG	--	EE	EE	EE	EE	EE	FN	FF	FN	FF	EE	EE	NN	--	EG
n-Pentane, pure	109-66-0	--	NN	GF	--	--	GF	EE	EE	EE	--	NN	NN	NN	EE	GF	EG	NN	NN	NN	EE	EE	EG	--	EE
Pentane, pure	109-66-0	--	NN	GF	--	--	GF	EE	EE	EE	--	NN	NN	NN	EE	GF	EG	NN	NN	NN	EE	EE	EG	--	EE
Peracetic Acid, 0.10%	79-21-0	NN	GN	GN	GN	GN	GN	EE	EE	GG	NN	NN	NN	FN	NN	FN	NN	NN	FN	NN	EE	EE	NN	FN	FN
Perchloric Acid, 1M	7601-90-3	EE	EG	EE	--	--	EG	EE	EE	EG	--	GF	GF	GF	EE	EG	EG	NN	FN	NN	FN	GG	NN	GN	EE
Perchloric Acid, Concentrated	7601-90-3	GN	GN	GN	GN	GN	GN	GF	GF	GF	--	NN	NN	GF	FN	GF	FN	NN	NN	NN	FN	FN	NN	GN	GN
Percoll™, pure	65455-52-9	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EG	EE	EE	GF	EE	EE
Petroleum Ether, pure	8032-32-4	NN	FN	NN	NN	NN	GF	EE	EE	EG	E-	NN	NN	NN	GN	NN	NN	NN	NN	NN	EE	EE	NN	NN	NN
Phenol, 50%	108-95-2	NN	NN	NN	NN	NN	FF	EE	EE	EE	NN	NN	NN	NN	NN	NN	FN	NN	NN	NN	EE	EE	NN	NN	NN
Phenol, Aqueous, 10%	108-95-2	FN	FN	FN	FN	FN	GG	EE	EE	EG	NN	FN	FN	GF	NN	GF	GF	NN	FN	NN	EE	EE	NN	NN	NN
Phenol, Crystal	108-95-2	FN	FN	NN	GN	NN	EE	EE	EE	EE	NN	NN	FF	NN	NN	NN	NN	NN	FN	NN	EE	EE	NN	GN	NN
Phosphoric Acid, 10%	7664-38-2	EE	EE	EE	EE	EE	EE	EE	EE	EE	--	EE	EE	EE	--	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Phosphoric Acid, 88%	7664-38-2	EN	EE	EG	EG	EG	EE	EE	EE	EE	--	EG	EE	EG	NN	EG	EG	NN	GF	NN	EE	EE	NN	EE	EG
Polyethylene Glycol, pure	25322-68-3	EE	EE	EE	--	--	EE	EE	EE	EE	--	EF	EF	EE	--	EE	EG	EG	GF	EG	EE	EE	GF	EE	EE
Potassium Acetate, pure	127-08-2	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	GG	EE	EE	EE	EE	EG	NN	GN	NN	EE	EE	EG	EE	EE
Potassium Bicarbonate, pure	298-14-6	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	GF	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Potassium Bisulfate, Aqueous Solution	7646-93-7	EE	EE	EE	EE	--	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	--	EG	FN	EG	EE	EE	--	--	EE
Potassium Carbonate, pure	584-08-7	EE	EE	EE	EE	EE	GF	EE	EE	EE	GF	EG	EE	EE	GN	EG	EG	EG	EE	EG	EE	EE	EG	EE	EE
Potassium Chloride	#N/A	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Potassium Dihydrogen Phosphate, pure	7778-77-0	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Potassium Hydroxide, 0.18M	1310-58-3	EE	FF	EE	EE	EE	NN	EE	EE	EE	--	FN	EG	EE	EE	EG	EG	NN	EG	NN	EE	EE	NN	EE	EE
Potassium Hydroxide, 1M	1310-58-3	EE	EE	EE	EE	EE	FF	EE	EE	EE	--	NN	EG	EE	EE	EG	EG	FF	GF	FF	EE	EE	NN	EE	EE
Potassium Hydroxide, 5%	1310-58-3	EE	EE	EE	EE	EE	FF	EE	EE	EE	--	FN	EG	EE	EE	EG	EG	FF	GF	FF	EE	EE	NN	EE	EE
Potassium Hydroxide, Concentrated	1310-58-3	EE	EE	EE	EE	EE	FF	EE	EE	EE	NN	NN	EG	EG	EN	EG	EG	NN	FN	NN	EE	EE	NN	EE	EE
Potassium Hypochlorite, 20%	7778-66-7	EF	EG	FN	EE	EG	EG	EE	EE	EE	FN	GF	GF	EG	GF	EG	EG	FF	FN	FF	EE	EE	GF	EE	GF
Potassium Iodide, pure	7681-11-0	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EG	EG	EG	EE	EE	EG	EE	EE
Potassium Permanganate, 10%	7722-64-7	EG	GF	EE	EE	EE	GF	EE	EE	EE	--	EE	EE	EG	GF	EE	EG	EG	GN	EG	EE	EE	EG	EG	EE
Potassium Permanganate, pure	7722-64-7	EG	GF	EG	EE	EE	EE	EE	EE	EE	--	EE	EE	EG	FN	EE	EG	EG	GN	EG	EE	EE	EG	EG	EG
Potassium Persulfate, pure	7727-21-1	EE	EE	EE	EE	--	EE	EE	EE	EE	--	EE	EE	EE	EF	EE	EG	EG	--	EG	EE	EE	GF	EE	EE
Potassium Phosphate Tribasic, pure	7778-53-2	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EE	EG	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
1-Propanol, 100%	71-23-8	EE	EE	EE	EE	EE	EE	EE	EE	EE	FN	EE	EE	EG	NN	EE	FN	EG	GN	EG	EE	EE	NN	EE	EE
Propyl Acetate, pure	109-60-4	GF	EG	GF	--	GF	EE	EE	EE	EG	--	NN	NN	NN	NN	--	NN	NN	NN	NN	EE	EE	--	--	GF
Propylene Oxide, 100%	75-56-9	EF	GF	FN	FF	FN	EG	EE	EE	EG	GF	FN	FN	NN	NN	FN	EG	NN	GN	NN	EE	EE	GF	FF	FF
Pyridine, 5%	110-86-1	GG	EF	EF	GN	GF	GF	EE	EE	GF	--	NN	NN	NN	--	FN	FN	NN	FN	NN	EE	EE	NN	--	EF
Pyridine, pure	110-86-1	NN	FN	EF	NN	FN	NN	EE	EE	FG	--	NN	NN	NN	NN	FN	FN	NN	NN	NN	EE	EE	NN	--	EF
Resorcinol, pure	108-46-3	EE	EE	EE	EE	EE	EE	EE	EE	EE	--	GF	GF	GG	--	GG	--	FF	NN	FF	EE	EE	NN	EE	EE
Silicone Oil, pure	63148-62-9	EG	EE	EE	EE	EE	EE	EE	EE	EE	GN	EE	EE	EG	FN	EE	FN	NN	GF	NN	EE	EE	EG	EG	EG
Silver Chloride, pure	7783-90-6	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Silver Nitrate, 10%	7761-88-8	EG	EE	EE	EG	EE	EE	EE	EE	EE	FF	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Acetate, Saturated	127-09-3	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EE	EE	EE	EG	NN	GN	NN	EE	EE	EG	EE	EE
Sodium Bicarbonate, pure	144-55-8	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	GF	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Bisulfite, Saturated	7681-57-4	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	NN	GF	EG	NN	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Carbonate, <35%	497-19-8	EE	EE	EE	EE	EE	GF	EE	EE	EE	GF	EG	EE	EG	GN	EG	EE	EG	GN	EG	EE	EE	EG	EE	EE
Sodium Carbonate, pure	497-19-8	EE	EG	EE	EE	EE	GF	EE	EE	EE	GF	EG	EE	EG	GN	EG	EE	EG	GN	EG	EE	EE	EG	EE	EE
Sodium Chloride, pure	7647-14-5	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Chlorite, 10%	7758-19-2	EE	EE	EE	EE	--	EE	EE	EE	EE	--	EE	EE	EE	EF	--	--	--	--	--	EE	EE	--	--	EE
Sodium Chlorite, pure	7758-19-2	EE	EE	EE	EE	--	EE	EE	EE	EE	--	EE	EE	EE	EF	--	--	--	--	--	EE	EE	--	--	EE
Sodium Cyanide, pure	143-33-9	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	FN	EE	EE	EG	EG	EG	EE	EE	NN	EE	EE
Sodium Ferricyanide, pure	14217-21-1	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Ferrocyanide, pure	13601-19-9	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Glutamate, pure	142-47-2	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EG	EG	EG	EE	EE	GG	EE	EE
Sodium Hydroxide, <1%	1310-73-2	EE	FF	EE	EE	EE	NN	EE	EE	EE	FF	FN	EG	EE	EG	EG	EG	EG	EF	EG	EE	EE	NN	EE	EE
Sodium Hydroxide, 10%	1310-73-2	EE	EE	EE	EE	EE	FF	EE	EE	EG	GN	NN	EG	EE	EE	EG	EG	FF	GN	FF	EE	EE	NN	EE	EE
Sodium Hydroxide, 1M	1310-73-2	EE	EE	EE	EE	EE	FF	EE	EE	EE	GN	NN	EG	EE	EE	EG	EG	EG	EG	EG	EE	EE	NN	EE	EE
Sodium Hydroxide, 50%	1310-73-2	GG	EF	EE	EE	EG	FF	EE	EE	EG	NN	NN	GF	EG	EN	EG	EG	NN	FN	NN	EE	EE	NN	GG	EE
Sodium Hydroxide, pure	1310-73-2	EE	EF	EE	EE	EG	FF	EE	EE	EG	NN	NN	FF	EG	NN	EG	EG	NN	FN	NN	EE	EE	NN	GG	EE
Sodium Hypochlorite, 12.5%	7681-52-9	EF	EG	GN	EE	EE	EG	EE	EE	EG	FN	GF	GF	EG	EE	EG	GF	FF	FN	FF	EE	EE	GF	EE	GF
Sodium Lauryl Sulfate, pure	151-21-3	EE	EE	EE	EE	EE	EE	EE	EE	EE	GF	EE	EE	EE	EN	EE	EG	EG	GF	EG	EE	EE	GF	EE	EE
Sodium Nitrate, 40%	7631-99-4	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	NN	NN	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Nitrate, pure	7631-99-4	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	NN	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Nitrite, 40%	13780-06-8	EE	EE	EE	EE	--	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	--	EG	EG	EG	EE	EE	--	--	EE
Sodium Perborate, pure	7632-04-4	EE	EG	EE	EE	EE	EG	EE	EE	EG	--	EG	EG	EE	EF	EE	--	GF	EG	GF	EE	EE	--	EE	EE
Sodium Peroxide, 10%	1313-60-6	EF	EE	EG	--	--	EE	EE	EE	EG	--	EE	EE	--	EF	EE	--	NN	--	NN	EE	EE	--	--	EG
Sodium Peroxide, pure	1313-60-6	EF	EG	EG	--	--	EG	EE	EE	EE	--	EE	EE	--	EF	EE	--	NN	--	NN	EE	EE	--	--	EG
Sodium Persulfate, pure	7775-27-1	EE	EE	EE	EE	--	EE	EE	EE	EG	--	EE	EE	EE	EF	EE	EG	EG	--	EG	EE	EE	GF	EE	EE
Sodium Polyphosphate, 100%	10361-03-2	EE	EE	EE	--	--	EE	EE	EE	EE	EG	EG	EG	EE	GN	--	--	GF	--	GF	EE	EE	--	--	EE
Sodium Sulfate, pure	7757-82-6	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Sodium Thiocyanate, Solid	540-72-7	EE	EE	EE	--	--	EE	EE	EE	EE	EG	EG	EE	EE	EG	--	--	--	--	--	EE	EE	NN	EE	EE
Sodium Thiosulfate, pure	7772-98-7	EE	EE	EE	EE	EE	EE	EE	EE	EE	EF	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	EG	EE	EE
Stannous Chloride, pure	7772-99-8	GF	EE	EE	EE	EE	EE	EE	EE	EE	EF	EE	EE	EE	EE	EE	EG	EG	EG	EG	EE	EE	--	EE	EE
Sucrose, pure	57-50-1	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EG	EE	EG	EE	EE	EG	EE	EE
Sulfur Dioxide Solution, pure	7782-99-2	EE	EE	EE	--	--	EE	EE	EE	EG	--	GN	GN	--	FN	GF	EG	NN	GN	NN	EE	EE	EG	--	EE
Sulfur Trioxide, pure	14265-45-3	NN	--	NN	--	--	--	EE	EE	FN	--	--	--	--	--	--	NN	--	--	--	EE	EE	--	--	NN
Sulfuric Acid, 10%	7664-93-9	EE	EE	EE	EG	EE	EE	EE	EE	EE	E-	EG	EG	EG	EE	EE	GF	NN	EG	NN	EE	EE	GF	EE	EG
Sulfuric Acid, 1M	7664-93-9	EE	EE	EE	EG	EE	EE	EE	EE	EE	E-	EG	EG	EG	EE	EE	EG	NN	EF	NN	EE	EE	EE	EE	EG
Sulfuric Acid, 50%	7664-93-9	EE	EG	GF	GF	EG	EG	EE	EE	EE	--	GF	GG	EG	NN	GF	NN	NN	FN	NN	EE	EE	NN	EG	EG
Sulfuric Acid, 98%	7664-93-9	GG	NN	FN	NN	NN	FN	EE	EE	EG	NN	NN	NN	FF	NN	FF	NN	NN	NN	NN	EE	EE	NN	FN	FN
t-Butyl Alcohol, 100%	75-65-0	EG	EE	EG	EE	EG	EE	EE	EE	EE	--	GF	GF	GG	--	EE	FN	FF	FN	FF	EE	EE	NN	EG	EG
Tetrachloroethylene, pure	127-18-4	NN	NN	NN	NN	NN	FF	EE	EE	EE	NN	NN	NN	NN	NN	FN	FN	NN	NN	NN	EE	EE	NN	NN	NN
Tetrahydrofuran, pure	109-99-9	FN	FN	GF	GF	FF	GF	EE	EE	FF	--	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	FN	GF
Tetramethylammonium Hydroxide, pure	75-59-2	NN	FN	GN	GN	FF	NN	EE	EE	EG	--	NN	GF	GG	--	EG	EG	FF	NN	FF	EE	EE	EG	NN	GN
Toluene, pure	108-88-3	FN	NN	NN	NN	FF	FF	EE	EE	EE	NN	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	FN	NN
Tributyl Phosphate, pure	126-73-8	GF	GF	GF	GF	GF	EG	GG	GG	EG	--	NN	NN	NN	--	--	FN	NN	NN	NN	GF	GF	NN	GF	GF
Trichloroacetic Acid, 10%	76-03-9	EG	EE	EE	--	EE	EG	EE	EE	EE	--	EF	EF	FN	--	GF	EG	NN	GN	NN	EE	EE	--	GG	GG
Trichloroacetic Acid, 50%	76-03-9	EG	FN	GF	FN	EE	FN	EE	EE	EG	--	FN	GN	FN	NN	FN	GF	NN	FN	NN	EE	EE	NN	GF	GF
Trichloroacetic Acid, pure	76-03-9	EG	FN	GF	FN	EE	FN	EE	EE	EG	--	FN	GN	FN	NN	FN	GF	NN	FN	NN	EE	EE	NN	GF	GF
Trichloroethylene, pure	79-01-6	NN	NN	NN	NN	FN	FF	EE	EE	FF	NN	NN	NN	NN	NN	FN	FN	NN	NN	NN	EE	EE	NN	NN	NN
Triethanolamine, pure	102-71-6	EN	EG	FN	--	--	GF	EE	EE	EF	--	NN	NN	EE	E-	EE	FN	FF	--	FF	EE	EE	NN	--	EE
Trifluoroacetic Acid, pure	76-05-1	EG	EE	EG	--	EG	GF	EE	EE	EG	--	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	GF	GF
Trimethylamine, pure	75-50-3	NN	NN	GN	FN	--	NN	EE	EE	EG	--	NN	NN	FN	FN	--	EG	FF	NN	FF	EE	EE	EG	NN	GN
Tris Buffer Solution, pH 11	N/A	EG	EE	EG	EG	EE	EG	EE	EE	EE	NN	FN	GF	EG	EE	EE	GF	EG	EG	EG	EE	EE	GF	EG	EE
Tris Buffer Solution, pH 7.0	N/A	EG	EE	EG	EG	EE	EE	EE	EE	EE	EE	GF	GF	EG	EE	EE	EG	EG	EG	EG	EE	EE	GF	EG	EE
Trisodium Phosphate, pure	7601-54-9	EE	EE	EE	EE	EE	GF	EE	EE	EE	GF	GN	GF	EE	GN	EG	EE	EG	GN	EG	EE	EE	EG	EE	EE
Triton™ X-100, pure	9002-93-1	EE	GN	EE	--	EE	GG	EE	EE	EE	EG	FN	FN	EE	EN	EE	EE	EG	GN	EG	EE	EE	GF	EE	EE
Tween™ 20, pure	9005-64-5	GN	EG	EE	EG	EE	EE	EE	EE	EE	EG	FN	GG	EG	EN	EE	EE	EE	FN	EE	EE	EE	GF	EF	EE
Urea, 10%	57-13-6	EE	EE	EE	EE	EE	EG	EE	EE	EE	--	EG	EG	EE	EE	EE	GG	EG	GG	EG	EE	EE	GF	EE	EE
Urine, pure	N/A	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	GF	GF	EG	EE	EE	EE	EG	GN	EG	EE	EE	FF	EE	EE
X-GlcA, pure	114162-64-0	GN	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EN	EE	EE	EE	--	EF	EE
X-Glu, pure	129541-41-9	GN	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EN	EE	EE	EE	--	EF	EE
Xylene, pure	1330-20-7	NN	FN	FN	FN	FN	GF	EE	EE	EG	--	NN	NN	NN	NN	FN	NN	NN	NN	NN	EE	EE	NN	GN	FN
Zinc Chloride, pure	7646-85-7	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EG	FN	EG	EE	EE	EG	EE	EE
Zinc Stearate, pure	557-05-1	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	--	--	GN	--	EE	EE	--	EE	EE
Zinc Sulfide, pure	1314-98-3	EE	EE	EE	EE	EE	EE	EE	EE	EE	EG	EE	EE	EE	EE	EE	EE	EG	GN	EG	EE	EE	EG	EE	EE

Thermo Scientific™ Nalgene™ Labware Chemical Resistance Key

In the table at left, the first letter of each pair applies to conditions at 20°C and the second letter applies to conditions at 50°C. Example: 20°C → E G ← at 50°C

E – No damage after 30 days of constant exposure
G – Little or no damage after 30 days of constant exposure
F – Some effect after 7 days of constant exposure
N – Immediate damage may occur; not recommended for continuous use

Nalgene Labware Chemical Resistant Chart Key

Abbreviation	Name	Abbreviation	Name
ETFE	Ethylene Tetrafluoroethylene	PP	Polypropylene
FEP	Fluorinated Ethylene Propylene	PPCO	Polypropylene Copolymer
FLPE	Fluorinated High Density Polyethylene	PS	Polystyrene
HDPE	High Density Polyethylene	PSF	Polysulfone
LDPE	Low Density Polyethylene	PUR	Thermoplastic Polyurethane
LLDPE	Linear Low Density Polyethylene	PVC	Polyvinyl Chloride
PC	Polycarbonate	ResMer™	ResMer™
PETG	Polyethylene terephthalate copolymer	SILI-g	Silicone - Gaskets
PFA	Perfluoroalkoxy	SILI-t	Silicone - Tubing
PMMA	Polymethylmethacrylate	TPE	Thermoplastic Elastomer
PMP	Polymethylpentene		

Interpretation of Chemical Resistance

The Chemical Resistance Chart on this poster is a general guide and pertains to Thermo Scientific Nalgene products only. Because so many factors can affect the chemical resistance of a given product, you should test under your own conditions. This chart is not intended for use with Nalgene centrifugeware or filterware. Chemical resistance information for Nalgene centrifugeware may be found at thermofisher.com/centrifugeware and chemical resistance information for Nalgene filtration may be found at thermofisher.com/filtration.

Effects of Chemicals on Plastics

Chemicals can affect the strength, flexibility, surface appearance, color, dimensions or weight of plastics. The basic modes of interaction which cause these changes are: (1) chemical attack on the polymer chain, with resultant reduction in physical properties, including oxidation; reaction of functional groups in or on the chain; and depolymerization; (2) physical change, including absorption of solvents, resulting in softening and swelling of the plastic; permeation of solvent through the plastic; dissolution in a solvent; and (3) stress cracking from the interaction of a "stress cracking agent" with internal or external stresses.

Mixing and/or dilution of certain chemicals can be potentially dangerous

The combination of different chemicals or compounds of two or more chemicals including water, may cause an undesirable or reactive chemical effect or increase temperature.This can affect chemical resistance (as temperature increases, resistance to attack decreases). Other factors affecting chemical resistance include pressure and internal or external stresses (e.g. centrifugation), length of exposure, and concentration of the chemical.

Environmental Stress Cracking

Environmental stress cracking is the failure of a plastic material in the presence of certain types of chemicals. This failure is not a result of chemical attack. Simultaneous presence of three factors causes stress cracking: mechanical stress, a stress cracking agent, and the inherent susceptibility of the plastic to stress cracking. Common stress cracking agents are detergents, surface active chemicals, lubricants, oils, ultra-pure water and plating additives such as brighteners and wetting agents. Relatively small concentrations of stress cracking agent may be sufficient to cause cracking.

Care and Precautions

Mixing and/or diluting of certain chemicals may result in reactions which produce heat, which can cause product failure. Pre-test your specific usage and always follow correct lab safety procedures.

Caution: Do not store strong oxidizing agents in plastic labware except that made of FEP or PFA. Prolonged exposure can cause the material to become brittle and fail. While prolonged storage may not be intended at time of filling, a forgotten container will fail in time and result in leakage of the contents.

Prior to each use, inspect plastic labware for signs of plastic aging including but not limited to cracking, crazing (spiderweb cracks), permanent discoloration, and embrittlement (loss of flexibility where it formerly existed). To avoid product failure during use, replace labware when signs of aging become evident.

To extend the usable life of your plastic labware, avoid prolonged exposure to UV light or direct sunlight, and wash with a pH neutral detergent like Nalgene L900 detergent. Repeated autoclaving will shorten the life of plastic labware.

Do not place any plastic labware into a flame.

Nalgene L900 Liquid Detergent

Thoroughly clean all plastic labware, especially polycarbonate, with Thermo Scientific™ Nalgene™ L900™ Liquid Detergent. This environmentally-friendly formula will not cause crazing, stress cracking or clouding of plastic when used as directed.

- For hand or machine use
- Low foaming
- Biodegradable
- Specially formulated for Nalgene plastic labware
- Non-toxic

Physical Properties

Plastics Physical Properties

Resin	Max. Use Temp. °C [2]	HDT Temp. °C [1]	Brittleness Temp °C [12]	Clarity	Micro-wavability [2]	Sterilization [4]: Autoclaving	EtO Gas	Dry Heat	Radiation	Disinfectants	UV Light Resistance	Specific Gravity	Flexibility	Permeability (cc.-mil/100in²-24 hr.-atm) N_2	O_2	CO_2	Permeability (cc.-mm/m²-24 hr.-Bar) N_2	O_2	CO_2	Water Adsorbtion (%)	Non-Cytotoxicity [6]	Suitability for Food and Bev. Use [7]	Regulation Part 21 CFR
ETFE	150	104	-105	Translucent	Yes	Yes	Yes	No	Yes	Yes	Good	1.7	Rigid	30	100	250	11.66	38.86	97.14	0.03	Yes	Yes	177.1380
FEP	205	70	-270	Translucent	Marginal [3]	Yes	Yes	Yes	No	Yes	Good	2.15	Excellent	320	750	2200	124.34	291.41	854.82	<0.01	Yes	Yes	177.1550
FLPE	120	65	-100	Translucent	No	No	Yes	No	Yes	Yes	Poor	0.95	Moderate	42	185	580	16.32	71.88	225.36	<0.01	Yes	Yes [8]	177.1615
HDPE	120	65	-100	Translucent	No	No	Yes	No	Yes	Yes	Poor	0.95	Moderate	42	185	580	16.32	71.88	225.36	<0.01	Yes	Yes [8]	177.1520
LDPE	80	40 to 54	-76	Translucent	Yes	No	Yes	No	Yes	Yes	Fair	0.92	Good	180	500	2700	69.94	194.28	1049.09	<0.01	Yes	Yes [8]	177.1520
PC	115 to 138	142	-135	Transparent	Marginal [3]	Yes [5]	Yes	No	Yes	Some	Fair	1.20	Rigid	50	300	1075	19.43	116.57	417.69	0.35	Yes	Yes	177.1580
PETG	70	60 to 71	-40	Transparent	Marginal [3]	No	Yes	No	Yes	Some	Fair	1.27	Moderate	10	25	125	3.89	9.71	48.57	0.13	Yes	Yes [9]	177.1315
PFA	260	73	-270	Transparent	Yes	Yes	Yes	Yes	No	Yes	Fair	2.17	Excellent	291	881	2260	113.07	342.31	878.13	<0.02	Yes	No	--
PMMA	50 to 65	84 to 101	20	Transparent	No	No	No	No	Yes	Some	Good	1.19	Rigid	2.78	12.35	67.94	1.08	4.80	26.40	0.35	Yes	Yes	177.1010
PMP	153 to 174	82 to 90	0 to 20	Transparent	Yes	Yes	Yes	Marginal	No	Yes	Fair	0.835	Rigid	8000	32000	115000	3108.42	12433.68	44683.53	0.01	Yes	Yes [10]	177.1520
PP	135	107	0	Translucent	Yes	Yes	Yes	No	No	Yes	Fair	0.9	Rigid	48	240	800	18.65	93.25	310.84	<0.02	Yes	Yes	177.1520
PPCO	121	90	-40	Translucent	Marginal [3]	Yes	Yes	No	No	Yes	Fair	0.9	Moderate	45	200	650	17.48	77.71	252.56	<0.02	Yes	Yes	177.1520
PS	90	82 to 96	20	Transparent	No	No	Yes	No	Yes	Some	Fair	1.05	Rigid	20 - 25	300 - 400	1,000 - 1,500	7.8 - 9.7	116 - 155	388 - 582	0.05	Yes	Yes	177.1640
PSF	141 to 165	174	-100	Transparent	Yes	Yes	Yes	Yes	Yes	Yes	Fair	1.24	Rigid	55	300	700	21.40	117	272	0.3	Yes	Yes	177.1655
ResMer™	130 to 150	200 to 300	20	Opaque	Marginal [3]	Yes	Yes	No	Yes	Some	--	1.15 to 1.50	Rigid	--	--	--	--	--	--	0.01	--	--	--
SILI-g	204	-46	-68	Transparent to Opaque	Yes	Yes	Yes	Yes	Yes	Yes	--	1.1 to 1.5	Moderate to Excellent	--	--	--	--	--	--	0.1	--	Yes [8]	177.2600
TPE	121	<23	<-50	Transparent to Opaque	Yes	Yes	Yes	No	Yes	Some	--	0.9	Moderate to Excellent	31 - 145	85 - 646	900 - 8634	12.05 - 56	33.03 - 251	350 - 3355	0.05 to 0.1	Yes	Yes	177.2600
Tubing:																							
SILI-t 50/65	232	-46	-62	Translucent	Yes	Yes	Yes	Yes	Yes	Some	--	1.15	Excellent	46116	132762	335741	17918.49	51585	130453	0.1	Yes	Yes [8]	177.2600
PVC 180	71	-32	-32	Transparent	Yes [14]	Yes [13]	Yes	No	No	Some	Fair	1.19	Excellent	8.3 - 33	16.7 - 100	167 - 584	3.2 - 13	2.6 - 39	64.8 - 227	0.15 to 0.75	--	Yes [11]	176.180 / 175.300
PURS 280	85	32	-73	Transparent Amber	No	No	Yes	No	No	Some	--	1.18	Moderate	5.0 - 83	16.7 - 167	66.7 - 417	1.9 - 32.4	6.5 - 65	26 - 162	1.12	--	No	--
LLDPE 489	79	47	-73	Translucent	Marginal [3]	No	Yes	No	No	Some	Fair	0.92	Moderate	333.60	1000.70	4670.00	129.62	388.82	1814.54	<0.01	--	Yes [8]	177.1520
PP 689	121	100	-4	Translucent	Yes	Yes	Yes	No	No	Some	Fair	0.9	Rigid	66.70	416.90	1501.10	25.92	161.99	583.26	<0.02	--	Yes	177.1520
PFA 870	260	73	-270	Transparent	Yes	Yes	Yes	Yes	No	Yes	Fair	2.17	Excellent	300	1084	2501	116.64	421.23	972.08	<0.02	Yes	No	--
FEP 890	205	70	-270	Translucent	Marginal [3]	Yes	Yes	Yes	No	Yes	Good	2.15	Excellent	320	750	2200	124.34	291.41	854.82	<0.01	Yes	Yes	177.1550
PVC 980	82	-32	-21	Transparent	No	No	Yes	No	No	Some	Fair	1.2	Moderate	8.3 - 33	16.7 - 100	167 - 584	3.2 - 13	2.6 - 39	64.8 - 227	0.15 to 0.75	--	Yes [11]	176.180 / 175.300

Footnotes:

1. Heat Deflection Temperature is the temperature at which an injection molded bar deflects 0.1" when placed under 66 psig (ASTM D648) of pressure. Materials may be used above Heat Deflection Temperatures in non-stress applications; see Max. Use Temp.
2. Ratings based on 5-minute tests using 600 watts of power on exposed, empty labware. CAUTION: Do not exceed Max. Use Temp., or expose labware to chemicals which heating causes to attack the plastic or be rapidly absorbed.
3. The plastic will absorb and retain significant amounts of heat resulting in an unexpectedly hot surface.
4. **STERILIZATION:**
   - Autoclaving (121°C, 15 psig for 20 minutes) – Clean and rinse items with distilled before autoclaving. (Always completely disengage thread before autoclaving.) Certain chemicals which have no appreciable effect on resins at room temperature may cause deterioration at autoclaving temperatures unless removed with distilled water before hand.
   - EtO Gas – Ethylene Oxide: 100% EtO, EtO:Nitrogen mixture, EtO:HCFC mixture
   - Dry Heat – exposure to 160°C for 120 minutes without stress/load on the polymer parts
   - Disinfectants – Benzalkonium chloride, formalin/formaldehyde, hydrogen peroxide, ethanol, etc.
   - Radiation – gamma or beta irradiation at 25 kGy (2.5 MRad) with unstabilized plastic.
5. Sterilizing reduces mechanical strength. Do not use PC vessels for vacuum applications if they have been autoclaved. Refer to Use and Care Guidelines for Nalgene Labware at thermofisher.com/labwarecare, for detailed information on sterilizing.
6. "Yes" indicates the resin has been determined to be non-cytotoxic, based on USP Biological Reactivity Tests, in vitro, requirements.
7. Resins meet requirements of CFR21 section of Food Additives Amendment of the Federal Food and Drug Act. End users are responsible for validation of compliance for specific containers used in conjunction with their particular applications.
8. Acceptable for:
   - Nonacid, aqueous products; may contain salt, sugar or both (pH above 5.0)
   - Dairy products and modifications; oil-in-water emulsions, high or low fat
   - Moist bakery products with surface containing no free fat or oil
   - Dry solids with the surfaces containing no free fat or oil (no end-test required) and under all conditions as described in Table 2 of FDA Regulation 177.1520 except condition A - high temperature sterilization (e.g. over 100°C / 212°F)
9. Acceptable for:
   - Alcoholic foods containing not more than 15% (by volume) alcohol; fill and storage temperature not to exceed 49°C (120°F)
   - Non-alcoholic foods of hot fill to not exceed 82°C (180°F) and 49°C (120°F) in storage.
   - Not suitable for carbonated beverages or beer or packaging food requiring thermal processing.
10. Straight-sided jars, beakers and graduated cylinders only.
11. Acceptable for aqueous, oil, dairy, acidic, and alcoholic foods up to 71°C/160°F.
12. The brittleness temperature is the temperature at which an item made from the resin may break or cracked if dropped. This is not the lowest use temperature if care is exercised in use and handling.
13. The tubing will become opaque from absorbed water, see Use and Care Guidelines for Nalgene Labware at thermofisher.com/labwarecare.
14. If microwaved in the presence of water; the tubing will become opaque from absorbed moisture, see Use and Care Guidelines for Nalgene Labware at thermofisher.com/labwarecare for details.

For additional information about chemical compatibility, physical properties, and the care and use of Nalgene Labware, please contact Nalgene Technical Support.
Email (Americas): technicalsupport@thermofisher.com; Tel: 800-625-4327 or 585-586-8800
Email (Countries: A, CH, D, F, BG, IRL): technicalsupport.labproducts.eu@thermofisher.com; Tel: 49-6184-90-6000