



# CHEMICAL RESISTANCE CHART

4-1000 (5-03)  
Supersedes 4-1000 (5-01)

## CHEMPRUF 1000 SERIES

### KEY:

- NR = Not recommended
- LS = Limited service
- ♠ = Two coats of appropriate ChemPruf finisher must be applied

**Note:** Numbers listed under each ChemPruf lining are maximum temperatures in degrees Fahrenheit (°F) for total immersion service in the solutions listed at given concentrations, unless stated otherwise.

The information presented is based on judgements derived from laboratory testing and field service performance. No guarantee of results is made or implied and no liability in connection with this information is assumed. The information presented herein should be supplemented by in-service testing. The data furnished in the tables may be revised on the basis of further testing.

**Note: For FDA applications, use CHEMPRUF 1310**

CHEMICAL ENVIRONMENT	CONCENTRATION %	CHEMPRUF 1300	CHEMPRUF 1310	CHEMPRUF 1410
Acetaldehyde	100	NR	NR	NR
Acetic Acid	10	180	160	180
Acetic Acid	15	160	150	160
Acetic Acid	25	160	150	160
Acetic Acid	50	125	140	160
Acetic Acid	75	80	80	100
Acetic Acid, Glacial	100	LS/80	NR	80
Acetone	100	NR	NR	NR
Acetonitrile	100	NR	NR	NR
Acetophenone	100	NR	NR	NR
Acetyl Chloride	100	NR	NR	NR
Acrylamide	50	80	NR	100
Acrylic Acid	10	100	100	100
Acrylic Acid	25	100	90	100
Acrylic Acid	100	NR	NR	100
Acrylonitrile	100	NR	NR	NR
Allyl Chloride	100	NR	NR	NR
Alum	all	180	160	180
Alum, Potassium	all	180	160	180
Aluminum Chloride	all	180	160	180
Aluminum Nitrate	all	180	160	180
Aluminum Sulfate	all	180	160	180
Aminoethyl Piperazine	100	NR	NR	NR
Ammonia, Dry	gas	90	90	100
Ammonia, Liquified Gas	—	NR	NR	NR
Ammonium Bicarbonate	10	120	160	160
Ammonium Bicarbonate	15	100	150	160
Ammonium Bicarbonate	20	NR	150	160
Ammonium Bicarbonate	saturated	NR	120	140
Ammonium Bisulfite Liquor	—	160	140	160
Ammonium Carbonate	10	NR	140	140
Ammonium Carbonate	30	NR	140	140

CHEMICAL ENVIRONMENT	CONCENTRATION %	CHEMPRUF 1300	CHEMPRUF 1310	CHEMPRUF 1410
Ammonium Carbonate	saturated	NR	140	140
Ammonium Chloride	saturated	160	140	160
Ammonium Fluoride	all	NR	NR	NR
Ammonium Hydroxide	5	NR	160	180
Ammonium Hydroxide	10	NR	140	150
Ammonium Hydroxide	20	NR	120	130
Ammonium Hydroxide	28	NR	100	100
Ammonium Nitrate	saturated	160	140	160
Ammonium Phosphate, Dibasic	saturated	150	160	180
Ammonium Phosphate, Monobasic	saturated	150	160	180
Ammonium Sulfate	saturated	180	160	180
Ammonium Sulfide	25	NR	80	120
Ammonium Sulfite	10	NR	80	130
Ammonium Thiocyanate	20	180	160	180
Ammonium Thiocyanate	saturated	160	120	120
Amyl Acetate	all	80	NR	80
Amyl Alcohol	all	150	140	160
Aniline Sulfate	saturated	160	140	160
Antimony Pentachloride	100	80	80	80
Antimony Trichloride	saturated	160	140	160
Barium Carbonate	—	180	160	180
Barium Chloride	all	180	160	180
Barium Hydroxide	10	NR	140	140
Barium Hydroxide	saturated	NR	150	150
Barium Sulfate	—	180	160	180
Barium Sulfide	saturated	NR	140	160
Beer	—	80	80	80
Benzaldehyde	100	NR	NR	70
Benzene	100	90	NR	80
Benzene Sulfonic Acid	30	160	140	160
Benzene Sulfonic Acid	saturated	80	120	160
Benzoic Acid	saturated	180	160	180
Benzyl Alcohol	100	NR	NR	80
Benzyl Chloride	100	NR	NR	LS
Black Liquor, pH > 7	—	NR	150	160
Bleach Reactor - 6% Sodium Hypochlorite	—	140	160	180
Borax	saturated	180	160	180
Boric Acid	saturated	180	160	180
Brine, Salt	saturated	180	160	180
Bromine, Dry	gas	90	90	100
Bromine Fumes	—	90	90	100
Bromine, Liquid	—	NR	NR	NR
Bromine Water	saturated	NR	75	75
Bromine:Water	5:95	NR	140	160
Bromine, Wet Gas	100	90	90	90
Butyl Acetate	100	80	NR	80
Butyl Alcohol	100	80	80	100
Butyl Carbitol	100	80	NR	80
Butyl Cellosolve	100	80	80	80

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CHEMICAL ENVIRONMENT	CONCENTRATION %	CHEMPRUF 1300	CHEMPRUF 1310	CHEMPRUF 1410
Butyl Ether	100	80	80	80
Butylamine	100	NR	NR	NR
Butylene Glycol	100	140	140	160
Butyric Acid	25	120	100	160
Butyric Acid	50	80	120	160
Butyric Acid	70	80	80	160
Butyric Acid	100	80	80	120
Calcium Bisulfite	saturated	NR	160	160
Calcium Carbonate	saturated	NR	160	180
Calcium Chlorate	saturated	180	160	180
Calcium Chloride	saturated	180	160	180
Calcium Hydroxide	15	NR	140	160
Calcium Hydroxide	25	NR	160	180
Calcium Hydroxide	saturated	NR	160	180
Calcium Hypochlorite	saturated	120	120	180
Calcium Nitrate	saturated	180	160	180
Calcium Sulfate	saturated	180	160	180
Caprylic Acid	saturated	140	160	180
Carbon Dioxide, Wet, Acidic	—	180	160	180
Carbon Disulfide	100	NR	NR	NR
Carbon Monoxide, Gas	—	180	160	180
Carbon Tetrachloride	100	100	NR	160
Carbonic Acid	saturated	140	90	110
Castor Oil	100	160	140	160
Chlorine Dioxide	5	150	150	150
Chlorine Dioxide Process Bleach Towers	—	180	150	180
Chlorine Dioxide Retention Towers	—	180	150	180
Chlorine Dioxide, Wet	saturated	180	150	180
Chlorine Gas, Dry	100	160	140	160
Chlorine Gas, Wet	100	160	140	160
Chlorine Water	saturated	180	160	180
Chloroacetic Acid	25	110	110	150
Chloroacetic Acid	50	90	90	100
Chloroacetic Acid	concentrated	NR	NR	NR
Chlorobenzene	100	NR	NR	80
Chloroform, Liquid	100	NR	NR	NR
Chlorosulfonic Acid	100	NR	NR	NR
Chlorotoluene (o)	100	NR	NR	80
Chromic Acid	5	160	NR	150
Chromic Acid	10	160	NR	150
Chromic Acid	20	120	NR	80
Chromic Acid	30	120	NR	NR
Chromic Acid	40	120	NR	NR
Chromic Acid	50	100	NR	NR
Chromic Acid	saturated	80	NR	NR
Chromic:Nitric:Hydrofluoric Acids	5:2:3	NR	NR	NR
Chromic:Phosphoric:Hydrofluoric Acids	7:40:2	NR	NR	NR
Chromic:Sulfuric Acids	40:0.4 oz./gal.	120	NR	NR
Chromic:Sulfuric Acids	53:0.53 oz./gal.	120	NR	NR
Chromic:Sulfuric Acids	3:16	120	NR	NR

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Chromic:Sulfuric:Hydrofluosilicic Acids (Chrome Plating)	45:0.3:0.5 oz./gal.	NR	NR	NR
Citric Acid	all	180	160	180
Coconut Oil	100	180	160	180
Copper Acetate	all	160	140	160
Copper Chloride	all	160	140	160
Copper Cyanide	all	160	140	160
Copper Nitrate	all	160	140	160
Corn Oil	100	180	160	180
Corn Starch	slurry	180	160	180
Cottonseed Oil	100	180	160	180
Cresylic Acid	100	NR	NR	NR
Cyclohexane	100	120	NR	120
Diallylphthalate	100	80	140	160
Dibutyl Ether	100	NR	NR	120
Dibutyl Phthalate	100	80	140	160
Dichlorobenzene	100	NR	NR	NR
1,2-Dichloroethane	100	NR	NR	NR
Dichloroethylene	100	NR	NR	NR
Dichloromethane	100	NR	NR	NR
Dichlorophenol	100	NR	NR	NR
Diesel Fuel	100	150	140	160
Diethanolamine	100	100	100	110
Diethyl Benzene	100	80	NR	120
Diethyl Ether	100	LS/80	NR	NR
Diethyl Sulfate	100	80	NR	110
Diethylene Glycol	100	160	140	160
Diethylene Triamine	100	NR	NR	NR
Diisobutyl Phthalate	100	80	NR	120
Dimethyl Phthalate	100	80	120	130
Dimethyl Sulfoxide	100	NR	NR	NR
Dioctyl Phthalate	100	NR	120	130
Diphenyl Ether	100	NR	NR	100
Dipropylene Glycol	100	160	140	160
Divinyl Benzene	100	80	NR	110
Dodecyl Alcohol	100	80	120	140
Ethanolamine	100	NR	NR	80
Ethyl Acetate	100	NR	NR	NR
Ethyl Acrylate	100	NR	NR	NR
Ethyl Alcohol	50	120	100	130
Ethyl Alcohol	95	100	100	100
Ethyl Benzene	100	NR	NR	80
Ethyl Bromide	100	NR	NR	NR
Ethyl Chloride	100	NR	NR	NR
Ethyl Ether	100	NR	NR	NR
Ethyl Sulfate	100	80	NR	80
Ethylene Dichloride	100	NR	NR	NR
Ethylene Glycol	100	160	140	160
Ethylene Glycol Monobutyl Ether	100	80	80	80
Ethylenediamine Tetra Acetic Acid	35	80	80	100

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Ethylenediamine Tetra Acetic Acid	100	80	80	100
Ferric Chloride, Nitrate, Sulfate	all	160	140	160
Ferrous Chloride, Nitrate, Sulfate	all	160	140	160
Fluoboric Acid	10	NR	NR	NR
Fluoboric Acid	25	NR	NR	NR
Fluosilicic Acid	10	NR	NR	NR
Fluosilicic Acid	25	NR	NR	NR
Fluosilicic Acid	35	NR	NR	NR
Formaldehyde	25	160	120	120
Formaldehyde	37	150	110	120
Formaldehyde	50	130	90	110
Formamide	100	80	100	100
Formic Acid	10	160	140	160
Formic Acid	25	140	120	120
Formic Acid	50	100	90	120
Formic Acid	90	100	NR	100
Furfural	5	90	100	150
Furfural	10	90	80	120
Furfural	50	NR	NR	NR
Furfuryl Alcohol	100	100	NR	80
Glucose	100	160	140	160
Glycerine	100	160	140	160
Glycolic Acid (See Hydroxyacetic Acid)				
Heptane, Normal	100	160	140	160
Hexamethylenetetramine	40	NR	80	100
Hexane	100	140	140	140
Hydraulic Fluid, Skydrol 500	100	140	140	160
Hydrazine	70	NR	NR	NR
Hydriodic Acid	40	140	120	130
Hydrobromic Acid	18	100	140	160
Hydrobromic Acid	25	160	140	160
Hydrobromic Acid	48	140	130	130
Hydrochloric Acid	10	160	140	160
Hydrochloric Acid	15	160	130	160
Hydrochloric Acid	20	160	130	160
Hydrochloric Acid	37	80	90	160
Hydrocyanic Acid	saturated	160	140	160
Hydrofluoric Acid	10	NR	NR	NR
Hydrofluoric Acid	15	NR	NR	NR
Hydrofluoric Acid	20	NR	NR	NR
Hydrofluoric Acid	25	NR	NR	NR
Hydrofluoric Acid	40	NR	NR	NR
Hydrofluoric:Nitric Acids	5:15	NR	NR	NR
Hydrofluosilicic Acid	10	NR	NR	NR
Hydrofluosilicic Acid	35	NR	NR	NR
Hydrogen Bromide, Dry	100	160	140	160
Hydrogen Bromide, Wet	100	160	140	160
Hydrogen Peroxide	5	150	90	150
Hydrogen Peroxide	30	100	90	120
Hydrogen Peroxide	35	80	80	100

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Hydrogen Peroxide	50	80	NR	NR
Hydrogen Sulfide	all	160	120	160
Hydroxyacetic Acid	35	140	120	160
Hydroxyacetic Acid	70	90	90	90
Hypochlorous Acid	20	90	90	110
Hypochlorous Acid	concentrated	80	NR	80
Isobutyl Alcohol	100	100	100	100
Isopropyl Alcohol	all	90	90	120
Isopropyl Amine	100	90	90	120
Jet Fuel (JP-4)	100	140	90	160
Kerosene	100	140	140	160
Lactic Acid	all	160	140	160
Lauryl Alcohol	100	100	100	160
Lead Acetate	all	140	140	160
Lead Chloride	saturated	180	160	180
Lead Nitrate	saturated	180	160	180
Levulinic Acid	saturated	160	140	160
Linoleic Acid	100	160	140	160
Linseed Oil	100	160	140	160
Lithium Bromide	all	160	140	160
Lithium Carbonate	saturated	NR	160	180
Lithium Chloride	all	180	160	180
Lithium Hydroxide	saturated	NR	140	160
Lithium Sulfate	all	180	160	180
Magnesium Bicarbonate	all	130	140	160
Magnesium Bisulfite	all	140	140	160
Magnesium Carbonate	saturated	NR	160	180
Magnesium Chloride	saturated	180	160	180
Magnesium Hydroxide	saturated	NR	160	180
Magnesium Nitrate	saturated	180	160	180
Magnesium Sulfate	saturated	180	160	180
Maleic Acid	all	160	140	160
Maleic Anhydride	100	160	140	160
Mercuric Chloride	saturated	180	160	180
Mercurous Chloride	saturated	180	160	180
Mercury	100	180	160	180
Metal Plating Solutions: Brass Plating, 3% Copper, 1% Zinc & 5.6% Sodium Cyanides, 3% Sodium Carbonate	—	NR	140	160
Bronze Plating, 4% Copper, 5% Sodium Cyanides, 3% Sodium Carbonate, 4.5% Rochelle Salts	—	NR	140	160
Cadmium Cyanide Bath, 3% Cadmium Oxide, 10% Sodium Cyanides, 1.2% Sodium Hydroxide	—	NR	140	160
Chrome Bath, 19% Chromic Acid with Sodium Fluosilicate & Sulfate	—	NR	NR	NR

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Copper Cyanide Bath, 10.5% Copper & 14% Sodium Cyanides, 6% Rochelle Salts	—	NR	140	160
Copper Matte Dipping Bath, 30% FeCl <sub>3</sub> , 19% Hydrochloric Acid	—	160	140	160
Copper Plating, 45% Cu(BF <sub>4</sub> ) <sub>2</sub> , 19% Copper Sulfate, 8% Sulfuric Acid	—	NR	NR	NR
Gold Plating, 23% Potassium Ferrocyanide with Potassium Gold Cyanide & Sodium Cyanide	—	NR	140	160
Iron Plating, 45% FeCl <sub>2</sub> , 15% CaCl <sub>2</sub> , 20% FeSO <sub>4</sub> , 11% (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	—	160	140	160
Lead Plating, Acid, 8% Lead, with Fluoboric & Boric Acids	—	NR	NR	NR
Lead Plating, Alkaline, 8% Pb (C <sub>2</sub> H <sub>3</sub> O) <sub>2</sub> Sodium Hydroxide	—	NR	140	160
Nickel Plating, (Nickel Sulfamate, Magnesium Chloride:Boric Acid) pH 3.7	—	160	140	160
Nickel Plating, 11% Nickel Sulfate, 2% Nickel Chloride, 1% Boric Acid	—	160	140	160
Nickel Plating, 44% Nickel Sulfate, 4% Ammonium Chloride, 4% Boric Acid	—	160	140	160
Silver Plating, 4% Silver, 7% Potassium & 5% Sodium Cyanides, 2% Potassium Carbonate	—	NR	140	160
Tin Fluoborate Bath, 18% Stannous Fluoborate, 7% Tin, 9% Fluorboric Acid, 2% Boric Acid	—	NR	NR	NR
Zinc Cyanide Bath, 9% Zinc & 4% Sodium Cyanides, 9% Sodium Hydroxide	—	NR	140	160
Methacrylic Acid	10	100	100	100
Methacrylic Acid, Glacial	100	90	NR	90
Methyl Alcohol	100	90	90	90
Methyl Chloride	100	NR	NR	NR
Methyl Chloroform (See 1,1,1-Trichloroethane)				
Methyl Isobutyl Ketone	100	NR	NR	NR
Methyl Methacrylate	100	NR	NR	110
Methylene Chloride	100	NR	NR	NR
Mineral Oil	100	160	140	160
Muriatic Acid (See Hydrochloric Acid)				
Myristic Acid	100	160	140	160
Naphtha	100	160	130	160
Naphthalene	100	90	140	160
Nickel Chloride	saturated	180	160	180
Nickel Nitrate	saturated	180	160	180
Nickel Sulfate	saturated	180	160	180
Nitric Acid	2	160	140	160

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CHEMICAL ENVIRONMENT	CONCENTRATION %	CHEMPRUF 1300	CHEMPRUF 1310	CHEMPRUF 1410
Nitric Acid	5	160	140	160
Nitric Acid	10	160	130	140
Nitric Acid	20	120	100	130
Nitric Acid	35	120	90	90
Nitric Acid	40	120	NR	80
Nitric Acid	50	120	NR	NR
Nitric Acid	60	80	NR	LS/80
Nitric:Hydrochloric Acids	10:10	120	100	120
Nitric:Hydrochloric Acids	5:20	120	100	120
Nitric:Hydrochloric:Hydrofluoric Acids	10:77:13	NR	NR	NR
Nitric:Hydrofluoric:Chromic Acids	2:3:6	NR	NR	NR
Nitric:Sulfuric Acids	15:15	160	NR	NR
Nitric Acid Vapor	—	160	140	160
Nitrobenzene	100	NR	NR	100
Nitromethane	100	80	NR	80
Nitrous Acid	10	90	80	90
Nonyl Phenol	100	100	100	110
Octanoic Acid (See Caprylic Acid)				
Oil, Sour Crude	100	160	140	160
Oil, Sweet Crude	100	160	140	160
Oleic Acid	100	160	140	160
Oleum (Fuming Sulfuric Acid)	—	NR	NR	NR
Olive Oil	100	120	140	160
Oxalic Acid	all	160	140	160
Palmitic Acid	100	160	140	160
Peanut Oil	100	160	140	160
Perchloric Acid	5	85	85	160
Perchloric Acid	10	85	NR	130
Perchloric Acid	30	85	NR	100
Perchloroethylene	100	80	NR	100
Phenol	2	160	80	100
Phenol	5	160	80	100
Phenol	10	100	NR	NR
Phenol	85	NR	NR	NR
Phosphoric Acid	85	160	140	160
Phosphoric Acid, Super	100	160	140	160
Phosphorous Oxychloride	100	80	NR	NR
Phosphorous Trichloride	100	NR	NR	NR
Phthalic Acid	100	100	140	160
Phthalic Anhydride	100	100	140	160
Picric Acid (Alcoholic)	10	100	100	100
Polyphosphoric Acid	105	160	140	160
Potassium Aluminum Sulfate	all	160	140	160
Potassium Bicarbonate	10	90	140	130
Potassium Bicarbonate	50	NR	140	160
Potassium Bromide	all	NR	100	100
Potassium Carbonate	10	NR	130♣	130♣
Potassium Carbonate	25	NR	110♣	130♣
Potassium Carbonate	50	NR	100♣	130♣
Potassium Chloride	all	180	160	180

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CHEMICAL ENVIRONMENT	CONCENTRATION %	CHEMPRUF 1300	CHEMPRUF 1310	CHEMPRUF 1410
Potassium Dichromate	all	160	140	160
Potassium Ferricyanide	saturated	160	140	160
Potassium Ferrocyanide	saturated	160	140	160
Potassium Fluoride	saturated	NR	130♣	130♣
Potassium Hydroxide	10	NR	130♣	130♣
Potassium Hydroxide	25	NR	100♣	130♣
Potassium Hydroxide	40	NR	90♣	130♣
Potassium Hydroxide	50	NR	NR	130♣
Potassium Nitrate	all	180	160	180
Potassium Permanganate	all	130	140	160
Potassium Persulfate	all	90	140	160
Potassium Pyrophosphate	60	100	100	130
Potassium Sulfate	all	160	140	160
Propionic Acid	20	140	140	160
Propionic Acid	50	100	140	160
Propionic Acid	100	NR	NR	80
Propylene Glycol	all	160	140	160
Pulp, Bleached	—	140	160	180
Pulp Stock, Chlorinated, pH 4.5	—	160	140	160
Pyridine	100	NR	NR	NR
Selenious Acid	all	160	140	160
Septic System	—	90	90	90
Sewage, Anaerobic	—	90	90	90
Sewage, Municipal, Treated & Untreated	—	90	90	90
Sewage Treatment	—	90	90	90
Sewage Treatment, Fumes	—	90	90	90
Silver Cyanide	saturated	140	140	160
Silver Nitrate	all	160	140	160
Sodium Acetate	all	160	140	160
Sodium Aluminate	all	NR	130	100
Sodium Benzoate	100	140	140	160
Sodium Bicarbonate	10	NR	140	160
Sodium Bicarbonate	saturated	NR	140	160
Sodium Bisulfate	all	180	160	180
Sodium Bisulfite	saturated	160	140	160
Sodium Borate	saturated	150	140	160
Sodium Bromide	all	180	160	180
Sodium Carbonate	10	NR	130♣	160♣
Sodium Carbonate	25	NR	110♣	160♣
Sodium Carbonate	32	NR	100♣	160♣
Sodium Carbonate	35	NR	100♣	160♣
Sodium Carbonate	saturated	NR	100♣	160♣
Sodium Chlorate	50	160	140	160
Sodium Chlorate	100	160	140	160
Sodium Chloride	saturated	180	160	180
Sodium Chlorite	10	160	130	130
Sodium Chlorite	50	130	100	110
Sodium Chromate	saturated	160	140	140
Sodium Cyanide	10	NR	140	160
Sodium Cyanide	15	NR	130	160

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Sodium Cyanide	50	NR	110	160
Sodium Dichromate	saturated	160	140	160
Sodium Ferricyanide	saturated	160	140	160
Sodium Ferrocyanide	saturated	160	140	160
Sodium Fluoride	all	NR	NR	NR
Sodium Fluorosilicate	all	NR	NR	NR
Sodium Hexametaphosphate	10	NR	100	100
Sodium Hydrosulfide	all	140	120	160
Sodium Hydroxide	1	NR	130♣	130♣
Sodium Hydroxide	5	NR	130♣	130♣
Sodium Hydroxide	10	NR	130♣	130♣
Sodium Hydroxide	15	NR	130♣	130♣
Sodium Hydroxide	25	NR	130♣	130♣
Sodium Hydroxide	50	NR	130♣	130♣
Sodium Hypochlorite (Stable)	2	120	120	160
Sodium Hypochlorite (Stable)	5	120	120	160
Sodium Hypochlorite (Stable)	10	110	110	160
Sodium Hypochlorite (Stable)	15	100	110	160
Sodium Lauryl Sulfate	100	100	100	140
Sodium Phosphate, Monobasic	saturated	NR	140	160
Sodium Nitrate	saturated	180	160	180
Sodium Nitrite	saturated	160	160	180
Sodium Persulfate	20	110	120	120
Sodium Silicate	all	NR	140	160
Sodium Sulfate	all	180	160	180
Sodium Sulfide	10	NR	110	160
Sodium Sulfide	saturated	NR	100	140
Sodium Sulfite	all	160	140	160
Sodium Tetraborate	saturated	160	140	160
Sodium Thiocyanate	all	NR	140	160
Sodium Thiosulfate	all	NR	90	160
Sodium Tripolyphosphate	saturated	110	140	160
Soya Oil	100	160	140	160
Stannic Chloride	all	160	140	160
Stannous Chloride	all	160	140	160
Styrene	100	NR	NR	110
Sugar, Beet, Liquor	—	160	140	160
Sugar, Cane, Liquor	—	160	140	160
Sulfamic Acid	25	140	130	130
Sulfanilic Acid	all	140	140	160
Sulfur Chloride	100	NR	NR	NR
Sulfur Dioxide, Dry or Wet	—	160	140	160
Sulfuric Acid	25	160	140	160
Sulfuric Acid	50	160	140	160
Sulfuric Acid	70	160	140	160
Sulfuric Acid	75	150	80	100
Sulfuric Acid	80	130	NR	NR
Sulfuric Acid	93	NR	NR	NR
Sulfuric:Chromic Acids	20:20	160	NR	NR
Sulfuric:Chromic Acids	32:20	90	NR	NR

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CHEMICAL ENVIRONMENT	CONCENTRATION %	CHEMPRUF 1300	CHEMPRUF 1310	CHEMPRUF 1410
Sulfuric:Nitric Acids, 50:50	30	160	NR	NR
Sulfuric Acid:Sodium Dichromate	30:3	130	NR	NR
Sulfurous Acid	10	130	90	110
Sulfuryl Chloride	100	NR	NR	NR
Tannic Acid	saturated	160	140	160
Tartaric Acid	saturated	160	140	160
Tetrapotassium Pyrophosphate	60	NR	110	130
Tetrasodium Pyrophosphate	60	NR	110	130
Thioglycolic Acid	10	100	100	100
Thionyl Chloride	100	NR	NR	NR
Toluene	100	90	NR	120
Toluene Diisocyanate	100	130	NR	NR
Toluene Sulfonic Acid	65	100	140	160
Toluene Sulfonic Acid	100	100	140	160
Tributyl Phosphate	100	NR	NR	120
Trichloroacetic Acid	50	80	140	160
Trichlorobenzene	100	NR	NR	NR
1,1,1-Trichloroethane	100	80	NR	80
Trichloroethylene	100	NR	NR	NR
Tricresyl Phosphate	100	NR	NR	140
Triethanolamine	100	NR	100	100
Triethylamine	100	NR	100	100
Triethylene Glycol	100	160	140	160
Triphenyl Phosphite	100	100	90	100
Trisodium Phosphate	25	NR	140	160
Trisodium Phosphate	50	NR	90	160
Turpentine, Pure Gum	100	100	90	160
Urea		50	100	100 130
Vinegar	—	160	140	160
Vinyl Acetate	100	NR	NR	NR
Vinyl Toluene	100	80	NR	100
Water, Deionized	—	180	160	180
Water, Demineralized	—	180	160	180
Water, Distilled	—	180	160	180
Water, Sea	—	180	160	180
Whey		—	130	120 130
White Liquor (Pulp Mill)	—	NR	140	160
Xylene		100	80	80 100
Zinc Chloride	saturated	180	160	180
Zinc Fluoborate	—	NR	NR	NR
Zinc Nitrate	all	180	160	180
Zinc Sulfate	all	180	160	180

**Note:** Atlas makes it a practice to continuously update and enhance our CCM (Corrosion Resistant Construction Materials) products. This may result in slight discrepancies between our printed Data Sheets and the current version. For the most recent version of any Data Sheet, please visit our Web site at [www.atlasmin.com](http://www.atlasmin.com)

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