CHEMICAL RESISTANCE CHART

Plasticized PVC (Polyvinyl Chloride)

R – recommended
L - limited recommendation
X - not recommended

REAGENT	23°C (72°F)	50°C (122°F)	68°C (155°F)	REAGENT	23°C (72°F)	50°C (122°F)	68°C (155°F)	REAGENT	23°C (72°F)	50°C (122°F)	68°C (155°F)
Acetaldehyde (100%)	X	X	X	Bismuth Carbonate	R	R	R	Dextrin	R	R	R
Acetic Acid (10%)	R	L	X	Bleach (16% Chlorine)	R	L	X	Dextrose	R	R	R
Acetic Acid (100%)	X	X	X	Boric Acid	R	R	L	Dibutyl Phthalate	X	X	X
Acetic Anhydride	X	X	X	Brine (Salt)	R	R	L	Diethyl Ketone	X	X	X
Acetone	X	X	X	Bromic Acid (10%)	R	L	X	Dimethylamine	X	X	X
Allyl Alcohol	X	X	X	Bromine (Liquid) (100%)	X	X	X	Disodium Phosphate	R	R	R
Allyl Chloride	X	X	X	Bromine (Water)	R	R	X	Distilled Water	R	R	R
Alum	R	R	R	Butyl Alcohol (100%)	X	X	X	Ethyl Acetate	X	X	X
Aluminum Chloride	R	R	R	Butyl Phenol	X	X	X	Ethyl Alcohol	L	X	X
Aluminum Fluoride (20%)	R	R	L	Butyric Acid (20%)	X	X	X	Ethyl Bromide	X	X	X
Aluminum Hydroxide	R	R	R	Calcium Bisulfate	R	R	R	Ethyl Chloride	X	X	X
Aluminum Sulfate (50%)	R	R	R	Calcium Carbonate	R	R	R	Ethyl Ether	X	X	X
Ammonium Carbonate	R	R	R	Calcium Chloride	R	R	R	Ethylene Glycol	R	L	X
Ammonium Chloride	R	R	R	Calcium Hydroxide	R	R	R	Fatty Acid	R	L	X
Ammonium Fluoride (20%)	R	R	X	Calcium Hypochlorite	R	L	X	Ferric Chloride	R	R	L
Ammonium Hydroxide (10%)	R	R	X	Calcium Nitrate	R	R	R	Ferric Nitrate	R	R	X
Ammonium Hydroxide (20%)	R	L	X	Calcium Sulfate	R	R	R	Ferric Sulfate	R	R	R
Ammonium Hydroxide (30%)	R	X	X	Carbon Bisulfide	X	X	X	Ferrous Chloride	R	R	L
Ammonium Nitrate	R	R	R	Carbon Disulfide	X	X	X	Ferrous Sulfate	R	R	L
Ammonium Sulfate	R	R	R	Carbon Tetrachloride	X	X	X	Fertilizers	R	L	X
Ammonium Sulfide	R	R	R	Carbonic Acid	R	L	X	Fluoboric Acid	R	R	R
Amyl Acetate (100%)	X	X	X	Castor Oil	R	R	X	Flourine (Gas)	R	X	X
Amyl Alcohol (100%)	X	X	X	Chloracetic Acid (100%)	X	X	X	Fluosilicic Acid	R	R	X
Amyl Chloride (100%)	X	X	X	Chlorine Dioxide (15%)	R	L	X	Formaldehyde (37%)	R	L	X
Aniline (100%)	X	X	X	Chlorine, Water	R	R	R	Formic Acid	L	L	L
Antimony Trichloride	R	R	R	Chlorobenzene	X	X	X	Fruit Juices	R	L	L
Apple Cider	R	L	X	Chloroform	X	X	X	Fruit Pulp	R	L	L
Aqua Ammonia (10%)	R	R	X	Chlorosulfonic Acid	X	X	X	Furfural	X	X	X
Aqua Ammonia (20%)	R	L	X	Chrome Alum	R	R	R	Gallic Acid	X	X	X
Aqua Ammonia (30%)	R	X	X	Chrome Liquor	R	R	L	Gasoline	L	X	X
Aqua Regia	L	X	X	Chromic Acid (10%)	R	R	R	Glucose	R	R	R
Arsenic Acid	R	L	X	Chromic Acid (30%)	R	R	X	Glycerine	R	L	L
Barium Carbonate	R	R	R	Chromium Tioxide	R	R	L	Grape Sugar	R	L	L
Barium Chloride	R	R	R	Citric Acid	R	R	L	Hydrobromic Acid	R	R	X
Barium Hydroxide	R	R	R	Copper Chloride	R	R	R	Hydrochloric Acid (10%)	R	R	L
Barium Sulfate	R	R	R	Copper Nitrate	R	R	R	Hydrochloric Acid (20%)	R	R	L
Barium Sulfide	R	L	X	Copper Sulfate	R	R	R	Hydrochloric Acid (38%)	L	X	X
Battery Acid	R	R	L	Corn Syrup	R	R	X	Hydrofluoric Acid (10%)	R	R	L
Beer	R	L	X	Cottonseed Oil	R	R	L	Hydrofluoric Acid (48%)	L	X	X
Benzaldehyde	X	X	X	Cuprous Chloride	R	R	R	Hydrofluosilicic Acid	R	R	X
Benzene	X	X	X	Cyclohexanol	X	X	X	Hydrogen Peroxide (3%)	R	R	R
Benzoic Acid	R	L	X	Cyclohexanone	X	X	X	Hydrogen Peroxide (30%)	R	L	X

(CONTINUED OVER)

REAGENT	23°C (72°F)	50°C (122°F)	68°C (155°F)
Hydrogen Sulfide	R	L	X
Hydroquinone	X	X	X
Inks	L	L	L
Iodine	X	X	X
Kerosene	R	L	X
Kymene 557	R	X	X
Kymene 709	R	X	X
Lactic Acid (28%)	R	L	X
Lead Acetate	R	L	X
Magnesium Carbonate	R	R	L
Magnesium Chloride	R	R	R
Magnesium Hydroxide	R	R	R
Magnesium Nitrate	R	R	L
Magnesium Sulfate	R	R	L
Malic Acid	R	L	X
Mercuric Chloride	R	R	L
Mercurous Nitrate	R	R	L
Mercury	R	R	R
Methyl Alcohol	L	L	X
Methyl Ethyl Ketone	X	X	X
Molasses	R	R	L
Muriatic Acid	R	R	L
Mustard	R	R	L
Nickel Sulfate	R	R	R
Nitric Acid (10%)	R	R	L
Nitric Acid (15%)	R	R	X
Nitric Acid (25%)	R	L	X
Nitrobenzene	X	X	X
Oakite No. 31	R	L	X
Oleic Acid	R	X	X
Oleum	X	X	X
Oxalic Acid	R	R	L
Perchloric Acid (10%)	R	R	X
Perchloric Acid (70%)	X	X	X
Phenol Acid	X	X	X
Phosphoric Acid (15%)	R	R	R
Phosphoric Acid (85%)	R	R	L
Phosphorus (Yellow)	R	X	X
Phosphorous Pentoxide	R	X	X

REAGENT	23°C (72°F)	50°C (122°F)	68°C (155°F)
Plating Solutions			
Brass, Cadmium, Copper, Gold, Lead, Nickel, Rhodium, Silver, Tin, Zinc	R	R	R
Chromium	R	R	L
Polyvinyl Acetate	R	X	X
Potassium Bicarbonate	R	R	R
Potassium Bromate	R	R	R
Potassium Bromide	R	R	R
Potassium Carbonate	R	R	R
Potassium Chloride	R	R	R
Potassium Chromate	R	R	R
Potassium Cyanide	R	R	L
Potassium Ferricyanide	R	R	R
Potassium Fluoride	R	R	R
Potassium Hydroxide (10%)	R	R	L
Potassium Hydroxide (50%)	L	X	X
Potassium Nitrate	R	R	R
Potassium Perchlorate	R	R	L
Potassium Permanganate	R	R	L
Potassium Sulfate	R	R	R
Sea Water	R	R	R
Silver Nitrate	R	R	R
Sodium Acetate	R	L	X
Sodium Bicarbonate	R	R	R
Sodium Bisulfite	R	R	L
Sodium Borate	R	R	R
Sodium Carbonate	R	R	R
Sodium Chlorate	R	R	L
Sodium Chloride	R	R	L
Sodium Dichromate	R	R	R
Sodium Ferrocyanide	R	R	R
Sodium Fluoride	R	R	R
Sodium Hydroxide (10%)	R	R	R
Sodium Hydroxide (50%)	R	L	X

REAGENT	23°C (72°F)	50°C (122°F)	68°C (155°F)
Sodium Hyprochlorite (16%)	R	L	X
Sodium Nitrate	R	R	L
Sodium Sulfate	R	R	R
Sodium Sulfide (10%)	R	R	R
Sodium Sulfite (10%)	R	R	R
Stannic Chloride	R	R	R
Stannous Chloride (25%)	R	L	X
Stearic Acid	R	L	X
Sugar Solution	R	R	L
Sulfur Dioxide (Gas)	R	R	X
Sulfuric Acid (10%)	R	R	R
Sulfuric Acid (35%)	R	R	L
Sulfuric Acid (50%)	R	L	X
Sulfuric Acid (98%)	L	X	X
Sulfurous Acid	R	L	X
Tannic Acid	R	L	X
Tanning Liquors	R	R	X
Tetraethyl Lead	X	X	X
Tetrahydrofuran	X	X	X
Toluene	X	X	X
Trichloroethylene	X	X	X
Triethanolamine	X	X	X
Trisodium Phosphate	R	R	R
Turpentine	X	X	X
Urea	R	R	X
Vanilla Extract	X	X	X
Vinegar	R	R	L
Water			
Demineralized, Distilled, Potable, Sea, Deionized	R	R	R
White Water	R	R	L
Wine	R	L	X
Xylene	X	X	X
Yeast	R	R	R
Zinc Chloride	R	R	R
Zinc Sulfate	R	R	R

The above ratings are based on the consideration of chemical resistance only. Potable water will not attack flexible vinyls. But to store it safely from the standpoint of toxicity, a specially formulated vinyl must be used. This would also apply to any material that is intended for human consumption. In this latter category, the possibility of the migration of very small amounts of plasticizer having an effect on the taste of the stored liquid should be considered.

Most of the service conditions are based on constant use at a specific temperature. In some applications, the temperature can be exceeded without liner damage but may decrease the life expectancy. Contact KENTAIN for more information.

KENTAIN PRODUCTS LIMITED
55 Howard Place
Kitchener, Ontario
N2K 2Z4
Telephone (519) 576-0994
Fax (519) 576-0919