

Chemical resistance of Tenite™ cellulose acetate

Tenite™ cellulose acetate (CA), a plastic produced from cellulose acetate, has been tested in contact with a number of materials, and the results are presented in this brochure.

Most tests were conducted by immersing injection-molded specimens of Tenite CA in a chemical for the time shown. Most values given are the result of a single test, and the measured gains in weight and thickness are rounded to the nearest 0.1%. Unless stated otherwise, tests were conducted at 23°C (73°F) and solutions were aqueous, i.e., "Acid, acetic, 5%" indicates a 5% solution of acetic acid water tested at 23°C (73°F). Unless other characteristics are specifically mentioned, the information given under "Observed condition of plastic" refers only to the appearance and feel of the plastic specimen.

The test results presented in this report are intended only as a guide to the general chemical resistance of CA. In actual applications where chemical resistance is a concern, it is necessary to conduct testing with the specific chemical, reagent, and end-use article involved. No effort is made in this publication to account for specific chemicals or reagents that may no longer be commercially available or may have been modified after test results were obtained.

Certain materials designated in this publication are generally unsatisfactory for use in contact with CA. There is no implication that other materials are suited for use with Tenite.

Because results from tests conducted at different temperatures or for different time periods may be different from those shown in this report, users of Tenite CA must be guided by their own tests under conditions equivalent to or representative of those to which the plastic will be subjected in actual service.

Click below to go to a specific test results table.

Chemicals

(Materials generally referred to by chemical name)

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Plastics made from wood pulp—
a renewable resource

Chemicals

(Materials generally referred to by chemical name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Acids				
Acetic, 5%*	1 year	5.5	3.2	Slightly softened, surface attacked
Acetic, 10%*	1 week	5.4	3.0	Slightly softened, surface attacked
Acetic, 30%*	1 week	17.0	22.6	Softened
Chromic, 6%*	8 days, 38°C (100°F)	—	—	Softened and swollen
Citric, 10%	1 year	2.8	1.7	Unchanged
Citric, 10%*	2 months, 60°C (140°F)	—	—	Decomposed
Citric, 30%*	1 week, 60°C (140°F)	—	—	Decomposed
Fluosilicic, 10%*	2 months	-1.3	2.0	Slightly warped
Fluosilicic, 28%*	2 months	-1.7	0.0	Slightly warped
Formic, 3%	20 days	—	—	Unchanged
Hydrochloric, 6%	2 days	1.3	0.1	Unchanged
Hydrochloric, 8%*	2 days	0.1	-0.8	Softened
Hydrochloric, 10%*	1 month	2.1	1.5	Softened and swollen
Hydrofluoric, 10%*	1 month	—	—	Softened and swollen
Hydrofluoric, 48%*	1 month	—	—	Decomposed
Lactic, 10%	2 days	3.1	1.5	Unchanged
Lactic, 50%*	2 days	6.8	4.3	Slightly softened, surface attacked
Nitric, 10%*	1 week	—	—	Decomposed
Oleic	1 year	-3.3	-0.8	Unchanged
Phosphoric, 30%*	2 months	2.0	0.8	Unchanged
Phosphoric, 50%*	2 months	1.6	-0.4	Brittle, surface attacked
Phosphoric, 75%*	1 week	—	—	Decomposed
Pyrogalllic, 4%	1 week	7.9	3.6	Stained yellow
Stearic	1 week	—	—	Unchanged
Sulfuric, 3%*	1 month	3.0	2.2	Softened
Sulfuric, 10%*	1 year	—	—	Decomposed
Sulfuric, 20%*	8 months	—	—	Decomposed
Tannic, 10%*	4 months, 60°C (140°F)	7.6	1.8	Softened
Tartaric	2 days	2.9	1.6	Unchanged
Trichloroacetic*	1 month	—	—	Decomposed

*Indicates that material is generally unsatisfactory for use in contact with Tenite CA under the conditions of this test.

Chemicals

(Materials generally referred to by chemical name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Alcohols—monohydric				
<i>n</i> -Amyl	2 days	-0.4	0.3	Unchanged
<i>tert</i> -Amyl	2 days	-0.2	0.2	Unchanged
<i>n</i> -Butyl	2 days	1.4	1.4	Unchanged
<i>sec</i> -Butyl	2 days	0.4	0.8	Surface bleached slightly
<i>tert</i> -Butyl	2 days	-2.0	0.3	Unchanged
Diacetone*	—	—	—	Dissolved
Ethyl*	2 days	12.7	27.9	Swollen and softened
Ethyl, 50%*	1 week	13.4	11.6	Softened
Isoamyl	2 days	-0.4	0.1	Unchanged
Isobutyl	2 days	-1.7	0.4	Unchanged
Isopropyl*	2 days	10.9	18.4	Swollen
Methyl*	2 days	22.6	51.0	Blushed, softened, and swollen
Methyl, 5%*	1 year	4.0	2.6	Blushed and softened
<i>n</i> -Propyl*	2 days	2.2	4.2	Blushed
Tetrahydrofurfuryl*	3 days	—	—	Softened and swollen
Alcohols—dihydric and trihydric				
Glycerin	1 year	-0.7	-0.2	Unchanged
Ethylene glycol	1 year	1.3	1.4	Very slightly softened
Diethylene glycol*	4 months	20.8	15.9	Warped and softened, surface attacked
Triethylene glycol*	4 months	25.4	22.9	Warped and softened, surface attacked
Propylene glycol	2 days	0.4	0.4	Unchanged
Bases				
Ammonium hydroxide, 10%*	1 month	3.0	12.4	Softened, surface attacked
Sodium hydroxide, 1%*	1 month	-1.9	-0.1	Softened and warped
Sodium hydroxide, 10%*	1 week	—	—	Decomposed
Trimethylbenzylammonium hydroxide, 5%	17 days	-4.9	5.9	Swollen and checked

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Chemicals

(Materials generally referred to by chemical name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Esters				
<i>n</i> -Butyl acetate*	2 days	7.2	9.8	Surface attacked
sec-Butyl acetate*	2 days	3.7	3.6	Surface attacked
Ethyl acetate*	—	—	—	Dissolved
Ethyl lactate*	—	—	—	Dissolved
Ethylene glycol monomethyl ether acetate*	2 days	—	—	Surface attacked
Ethylene glycol monomethyl ether acetate*	—	—	—	Dissolved
Isoamyl acetate*	2 days	1.9	0.6	Surface attacked
Isobutyl acetate*	2 days	7.8	4.3	Surface attacked
Isopropyl acetate*	2 days	7.3	8.4	Surface attacked
Methyl acetate	—	—	—	Dissolved
Tetra (2-ethylbutyl) silicate	1 month, 50°C (122°F)	-2.4	0.8	Unchanged
Ethers				
Diethyl ether*	2 days	1.4	11.2	Blushed and swollen
Diisopropyl ether*	2 days	-9.3	-0.2	Unchanged
1,4-Dioxane*	—	—	—	Dissolved
Ether alcohols				
Diethylene glycol monobutyl ether*	2 days	1.0	1.6	Surface attacked slightly
Diethylene glycol monoethyl ether*	2 days	11.2	12.3	Swollen, surface attacked
Diethylene glycol monomethyl ether*	—	—	—	Dissolved
Ethylene glycol monobutyl ether*	2 days	2.0	2.8	Surface attacked slightly
Ethylene glycol monoethyl ether*	2 days	23.1	25.3	Swollen and slightly softened
Ethylene glycol monomethyl ether*	—	—	—	Dissolved
Hydrocarbons				
Benzene*	1 week	5.9	17.5	Softened and swollen
1,3 Butadiene, liquid*	1 year	-9.4	8.9	Warped and shrunken
1,3 Butadiene, gas*	1 month	4.2	2.8	Showed exudation
Heptane	1 year	-5.4	-1.2	Unchanged
Naphthalene (mothballs)*	48 hours, 38°C (100°F), 80% RH	1.0	0.9	Showed considerable plasticizer exudation
Naphthalene (mothballs)*	24 hours, 60°C (140°F), 88% RH	8.6	2.0	Showed considerable plasticizer exudation
Propane, gas	2 months	-0.8	0.0	Unchanged
Propane, liquid	1 month	-3.9	0.00	Unchanged
Toluene*	1 year	-1.7	8.9	Swollen and slightly softened
Xylene	1 year	-5.6	2.1	Unchanged

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Chemicals

(Materials generally referred to by chemical name)

HOME

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Hydrocarbons, halogenated				
Carbon tetrachloride*	2 months	14.9	4.1	Unchanged
Chlorobenzene*	—	—	—	Dissolved
Chlorobromomethane*	—	—	—	Dissolved
Chloroform*	—	—	—	Dissolved
<i>o</i> -Dichlorobenzene*	3 days	9.8	4.4	Slightly swollen
<i>p</i> -Dichlorobenzene	3 days	2.2	0.7	Unchanged
<i>p</i> -Dichlorobenzene*	3 days, 38°C (100°F), 80% RH	6.6	4.0	Showed some plasticizer exudation
Ethylene chloride*	—	—	—	Dissolved
Methylene chloride*	—	—	—	Dissolved
Propylene chloride*	2 days	25.3	2.1	Blushed and blistered
<i>sym</i> -Tetrabromoethane*	3 days	5.4	3.5	Slightly swollen
Tetrachloroethane*	—	—	—	Dissolved
Tetrachloroethylene	2 weeks	—	—	Unchanged
Trichloroethylene*	16 hours	32.2	—	Surface attacked
Ketones				
Acetone*	—	—	—	Dissolved
Cyclohexanone*	—	—	—	Dissolved
Diisopropyl ketone	2 days	0.0	0.3	Unchanged
Methyl <i>n</i> -butyl ketone*	2 days	13.4	16.2	Swollen, surface attacked
Methyl ethyl ketone*	—	—	—	Dissolved
Methyl isobutyl ketone*	2 days	40.4	7.4	Swollen, surface attacked
Methyl <i>n</i> -propyl ketone*	2 days	51.3	78.5	Swollen and warped, surface attacked
Phorone	2 days	0.00	0.2	Stained yellow

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Chemicals

(Materials generally referred to by chemical name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Salts				
Aluminum acetate, basic, 33% water slurry	2 months	4.0	2.1	Unchanged
Aluminum chloride, 10%	2 months	3.3	1.9	Unchanged
Aluminum chloride, saturated solution	2 months	0.3	0.0	Unchanged
Aluminum sulfate, 30%	3 months	3.0	2.0	Unchanged
Ammonium bifluoride, saturated solution	1 month	3.6	—	Slightly bleached
Ammonium chloride, saturated solution	1 month	1.4	0.4	Unchanged
Ammonium nitrate, solid	1 week	0.1	0.1	Unchanged
Ammonium nitrate, 10%	1 week	2.9	1.6	Unchanged
Ammonium sulfate, solid	1 year	0.0	0.6	Unchanged
Ammonium sulfate, 10%	1 year	3.7	1.6	Unchanged
Calcium chloride, solid	2 days	2.9	0.6	Unchanged
Calcium chloride, 2.5%	1 year	2.9	2.1	Unchanged
Calcium chloride, 40%	2 months	0.6	0.2	Unchanged
Calcium hypochlorite, 6%	3 months	2.9	2.0	Slightly softened
Calcium phosphate, monobasic, solid*	1 year	-1.1	1.4	Brittle, surface attacked
Calcium phosphate, dibasic, solid	1 year	-3.3	-0.6	Unchanged
Calcium phosphate, tribasic, solid	1 year	-3.7	-0.9	Unchanged
Calcium sulfate, solid	1 year	-0.2	-0.4	Unchanged
Cupric sulfate, 10%	2 months	3.5	1.8	Unchanged
Cupric sulfate, saturated solution	2 months	3.1	1.7	Unchanged
Cuprous chloride, saturated solution	1 week	2.3	2.8	Unchanged
Ferric chloride, 5%	2 months	2.9	2.1	Unchanged
Ferric chloride, 20%	2 months	2.5	1.9	Unchanged
Ferric chloride, 40%	2 months	2.8	0.5	Unchanged
Ferric chloride, saturated solution*	1 week	—	—	Surface tacky
Magnesium chloride, solid	2 days	2.9	1.6	Unchanged
Magnesium sulfate, solid	2 days	3.1	1.8	Unchanged
Mercuric chloride, 5%	2 says	5.9	1.8	Unchanged
Potassium aluminum sulfate, 21%	4 months, 38°C (100°F)	3.9	2.6	Surface attacked slightly
Potassium chloride, solid	1 year	0.0	0.8	Unchanged
Potassium chloride, 10%	1 year	3.3	1.3	Unchanged
Potassium cyanide, 10%*	2 months	-5.8	-4.8	Discolored and softened
Potassium cyanide, saturated solution*	2 months	-1.2	-2.9	Discolored and softened
Potassium iodide, saturated solution	3 days	—	—	Stained yellow
Potassium permanganate, saturated solution	2 says	3.3	1.4	Stained black
Potassium sulfate, solid	1 year	0.1	0.4	Unchanged
Potassium sulfate, 10%	1 year	2.6	1.5	Unchanged
Silver nitrate, 3%	2 days	2.0	0.6	Slightly softened

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Continued on next page

Chemicals

(Materials generally referred to by chemical name)

HOME

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Salts (continued)				
Sodium bicarbonate, solid	2 days	3.0	1.6	Unchanged
Sodium bisulfate, 20%	1 week	4.0	2.4	Unchanged
Sodium borate, 2.5%	2 days	2.9	1.6	Unchanged
Sodium carbonate, solid	4 days	-0.1	-0.1	Unchanged
Sodium carbonate, 2.5%	1 year	-8.7	-2.3	Slightly softened
Sodium chloride, 10%	1 year	2.5	1.5	Unchanged
Sodium chloride, saturated solution	2 months	1.3	0.5	Unchanged
Sodium chloride, saturated solution	2 months, 60°C (140°F)	1.0	0.5	Unchanged
Sodium cyanide, 10%*	2 months	-4.2	-5.6	Discolored, softened
Sodium cyanide, saturated solution*	2 months	-0.8	-2.6	Discolored, softened
Sodium ferrocyanide, solid	1 week	0.4	0.00	Unchanged
Sodium fluoride, 4%	1 month	3.6	—	Unchanged
Sodium hypochlorite, 5%*	2 days	0.9	0.4	Softened, surface attacked
Sodium nitrate, solid	2 months	-0.3	-0.2	Unchanged
Sodium nitrate, 10%	1 year	2.6	1.5	Unchanged
Sodium nitrate, saturated solution	2 months	1.5	0.9	Unchanged
Sodium nitrite, solid	2 months	-0.4	-0.4	Unchanged
Sodium nitrite, saturated solution	2 months	0.8	0.3	Unchanged
Sodium silicate, solid*	2 months	0.6	0.2	Etched
Sodium silicate, saturated solution*	2 months	-0.3	-2.6	Softened
Trimethylbenzyl ammonium chloride, 5%	17 days	0.6	3.2	Unchanged
Zinc chloride, hydrous salt	1 week	0.9	0.0	Unchanged
Zinc chloride, saturated solution*	1 week	—	—	Dissolved

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Chemicals

(Materials generally referred to by chemical name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Miscellaneous chemicals, compounds, and gases				
Ammoniated mercury	1 week, 60°C (140°F)	—	—	Unchanged
Aniline*	—	—	—	Dissolved
Carbon disulfide	1 month	0.6	1.9	Unchanged
Carbon disulfide, saturated atmosphere	2 days	5.9	2.4	Unchanged
Chlorine, dry*	1 week	3.6	0.8	Crazed and brittle
Chlorine, moist*	1 week	3.0	0.1	Crazed and brittle
Chlorine, saturated solution*	1 week	—	—	Softened and considerably swollen
Ethylene oxide, gas*	1 day	18.5	39.7	Softened and swollen
Eugenol*	—	—	—	Dissolved
Formaldehyde, 35%*	1 week	11.8	0.9	Softened and swollen
Hydrogen sulfide, dry	1 month	1.1	0.8	Unchanged
Hydrogen sulfide, moist	2 months	4.0	2.3	Unchanged
Hydrogen sulfide, saturated solution	2 months	1.6	2.2	Unchanged
Hydroquinone, 20 g/gal*	1 week	5.6	3.1	Stained light yellow
Iodine, saturated solution*	2 days	2.5	0.8	Stained light brown
Nitrobenzene*	3 days	—	—	Softened, swollen, and badly warped
Phenol, 5%*	1 week	—	—	Decomposed
Sulfur dioxide, dry*	2 months	17.3	11.6	Swollen and warped
Sulfur dioxide, moist*	2 months	13.5	9.7	Swollen and warped
Sulfur dioxide, saturated solution*	2 months	10.6	13.5	Swollen and considerably warped
Titanium tetrachloride*	3 days	—	—	Very brittle
Triethanolamine*	1 week	11.7	24.9	Badly softened
Triethanolamine, 10%*	1 week	-5.2	0.7	Softened, surface attacked

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Commercial and natural products

(Materials generally referred to by common name or trade name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Aeronautical and automotive items				
Gasolines				
— Aviation, 100 octane	1 year	-4.4	-1.1	Slightly stained
— British Petroleum regular	1 year	-2.8	-0.2	Stained light yellow
— British Petroleum premium	1 year	-2.9	-0.1	Unchanged
— ExxonMobil extra	1 year	-2.6	0.0	Stained yellow
— ExxonMobil regular	1 year	-2.3	-0.2	Stained yellow
— Shell premium	1 year	-2.3	-0.0	Stained yellow
— Shell regular	1 year	-1.9	-0.1	Stained yellow
Hydraulic fluids				
— Skydrol™ aviation hydraulic fluid	1 year	-1.1	-0.2	Unchanged
— Skydrol™ 500B-4 hydraulic aviation fluid*	1 year	1.2	0.4	Surface dulled
Jet propulsion fuel 3	1 year	-6.0	-1.6	Unchanged
Kerosene	1 week	-0.8	-1.9	Unchanged
Oils				
— Aeroshell™ Turbine Oil 12	1 year	-6.0	-2.0	Unchanged
— Shell Diala oil AX	2 months	-1.7	-0.8	No change
Nonautomotive greases and oils				
Essential oils				
— Bitter almonds*		—	—	Dissolved
— Borneol, 50% in <i>n</i> -butanol	2 days	0.1	0.3	Unchanged
— Citronella	2 days	0.6	0.3	Unchanged
— Cloves*		—	—	Dissolved
— Eucalyptus	2 days	0.3	0.1	Unchanged
— Lemon	2 days	0.3	0.1	Unchanged
— Menthol, 50% in <i>n</i> -Butanol	2 days	0.0	0.2	Unchanged
— Palmarosa	2 days	1.0	0.5	Unchanged
— Pennyroyal	2 days	1.0	0.6	Unchanged
— Spearmint	7 days	—	—	Unchanged
— Terpineol	2 days	0.1	0.1	Unchanged
— Thyme (white)	2 days	0.4	0.1	Unchanged
— Turpentine	1 year	-0.9	0.2	Unchanged
— Wintergreen*	2 days	2.7	1.6	Surface attacked slightly
Mineral oil	4 months	-2.2	-1.0	Unchanged
Sour crude oil	1 year	-3.2	-1.3	Slightly stained
Sperm oil	1 week, 90°C (194°F)	-4.0	0.0	Slightly warped
Transformer oil, G.E., No. 10-C	1 week, 82°C (180°F)	-2.9	0.6	Unchanged

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Commercial and natural products

(Materials generally referred to by common name or trade name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Household items				
Bacon	3 weeks (in refrigerator)	—	—	Unchanged
Butter	3 days	—	—	Unchanged
Carbolic acid, 5%*	1 week	—	—	Decomposed
Clorox™ solution*	2 days	—	—	Badly softened
Coffee grounds	3 days	—	—	Unchanged
Colgate® toothpaste	2 days	—	—	Unchanged
Cologne sticks*	1 day	—	—	Badly warped
Coty bath salts*	1 day	—	—	Softened and swollen
Dole™ frozen pineapple juice	1 week	1.9	1.0	Unchanged
Dreft™ detergent, 5%	2 months	0.9	1.3	Unchanged
Hershey's™ chocolate syrup	1 week	1.7	0.7	Unchanged
Horseradish	3 days	—	—	Unchanged
Hydrogen peroxide, 3%*	1 year	4.5	3.0	Bleached and softened
Hydrogen peroxide, 5%	2 days	3.1	1.7	Slightly bleached
Iced coffee	1 week	1.9	0.9	Stained
Iced tea	1 week	2.0	1.0	Unchanged
Joy™ detergent*	2 months	-3.3	10.1	Swollen and slightly warped
Joy™ detergent, 10%	2 months	-0.3	1.8	Unchanged
Ketchup	1 week	—	—	Slightly stained
Kool-Aid™ drink mix	3 days	—	—	Surface attacked slightly
Lard	3 days	—	—	Unchanged
Lemon juice	1 week	4.3	4.0	Unchanged
Lemonade	1 week	2.5	1.4	Unchanged
Lysol™*	1 year	—	—	Badly softened
Max Factor powder face cream	3 days	—	—	Unchanged
Mayonnaise	3 days	—	—	Unchanged
Mercurochrome	2 days	3.3	1.5	Stained light pink
Milk	3 days	—	—	Unchanged

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Continued on next page

Commercial and natural products

(Materials generally referred to by common name or trade name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Household items (continued)				
Minute Maid™ frozen concentrates				
— Grapefruit	1 week	1.9	0.6	Unchanged
— Orange	1 week	2.0	0.9	Unchanged
— Tangerine	1 week	1.9	0.7	Unchanged
— Lemonade	1 week	1.8	0.9	Unchanged
Mustard	2 days	2.8	1.4	Stained
Oleomargarine	3 days	—	—	Unchanged
Orange juice concentrate	3 days	—	—	Unchanged
Peanut butter	3 days	—	—	Unchanged
Ronsonol™ lighter fluid*	1 year	-5.9	-1.3	Softened and etched
Shaving cream	2 days	—	—	Unchanged
Stanley Home Products floor cleaner*	1 week	1.0	0.1	Softened
Tide™ detergent, 5%	2 months	0.1	1.2	Slightly warped
Vicks Sinex™ decongestant*	2 days, 50°C (122°F)	1.1	2.2	Badly stained
Welch's™ 100% grape juice concentrate	1 week	1.7	1.0	Unchanged
Welch's™ 100% grape juice	1 week	2.3	1.0	Unchanged

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Commercial and natural products

(Materials generally referred to by common name or trade name)

Reagent	Time exposed	Percent increase		Observed condition of plastic
		Weight	Thickness	
Miscellaneous				
Blood	1 week	—	—	Unchanged
Budweiser™ lager beer*	1 week	5.3	3.9	Swollen
Caulking compound (average of five brands)	1 week, 60°C (140°F)	-2.7	-0.1	Unchanged
Coca-Cola™ syrup concentrate	1 year	0.3	1.3	Stained slightly
Creosote	8 months	-2.7	0.7	Unchanged
2,4-D (amine type, 14% free acid)*	2 months	1.6	3.0	Swollen, softened, and warped
2,4-D, 4 tbs/gal	2 months	2.8	1.9	Very slightly softened
DDT, solid	1 week	0.2	0.0	Unchanged
DDT, 6% in Flit™ (insect spray)	1 week	0.4	0.4	Unchanged
Latex emulsion	1 year	-6.0	-2.2	Unchanged
Mineral spirits	10 days	-6.5	-1.4	Unchanged
Naphtha, industrial	1 month	-3.2	-0.8	Unchanged
Ortho® Weed-B-Gon® (ester type, 13.8% free acid)*	1 month	1.9	1.7	Unchanged
Ortho® Weed-B-Gon® weed killer, 2½ tbs/gal	1 month	3.3	1.6	Unchanged
Photographic products				
— Acid fixer	1 week	4.5	2.6	Unchanged
— D-72 developer*	1 week	3.4	2.5	Slightly softened
— DK-50 developer	1 week	4.6	2.9	Stained light amber
PPG Industries semigloss white paint (oil base)	1 week	-1.2	-0.4	Unchanged
Polycarbonate plastic (Lexan)	3 days, 38°C (100°F) 80 RH	—	—	Unchanged (polycarbonate softened, cracked when flexed)
Quinine	2 days, 49°C (120°F)	—	—	Unchanged
Refrigerants				
— Freon™ 11	2 hours	—	—	Showed exudation
— Freon™12, gas	1 month	0.3	0.2	Unchanged
— Freon™ 12, liquid	1 month	-3.4	-1.1	Unchanged
— Freon™ 22, gas	1 month	2.7	0.7	Unchanged
— Freon™ 22, liquid*		—	—	Dissolved
— Freon™ 114, gas	1 month	0.4	0.1	Unchanged
— Freon™ 114, liquid	1 month	0.6	0.6	Unchanged
Sheaffer Skrip® ink	1 month	1.1	5.8	Stained
Stoddard solvent	3 days	-0.1	0.0	Unchanged
Supermarket fly spray	1 week	0.1	0.0	Unchanged
Toxaphene, 61% (12% solution)	3 days, 38°C (100°F)	1.9	2.5	Unchanged
Water	1 year	3.1	2.0	Unchanged

*Indicates that material is generally unsatisfactory for use in contact with Tenite CAB under the conditions of this test.

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Eastman Corporate Headquarters

P.O. Box 431
Kingsport, TN 37662-5280 U.S.A.

U.S.A. and Canada, 800-EASTMAN (800-327-8626)
Other Locations, +(1) 423-229-2000

www.eastman.com/locations

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