

cloudy. Evaporate the petroleum ether and test as follows: Solution A—5 ml of phenol dissolved in 10 ml of carbon tetrachloride. Solution B—1 ml of bromine dissolved in 4 ml of carbon tetrachloride. To the residue obtained above add 2 ml of Solution A and transfer the mixture to a porcelain spot plate, filling one cavity. Immediately fill an adjacent cavity with solution B. Cover the plate with a watch glass and observe any color formation in Solution A. A decided purple or deep indigo blue color is an indication of the presence of rosin.

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

§ 21.128 Sodium (metallic).

(a) *Color*. Silvery-white (metallic luster) when freshly cut.

(b) *Identification test*. Clean a platinum wire by dipping it in concentrated hydrochloric acid and holding it over a Bunsen burner until the flame is no longer colored. Moisten the wire loop with hydrochloric acid and dip it into the sample. Hold the wire in the Bunsen flame and note the color. Sodium produces a golden yellow flame; not observed when viewed through a cobalt glass.

(c) *Purity*. Technical grade or better.

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

§ 21.129 Spearmint oil, terpeneless.

(a) *Carvone content*. Not less than 85 percent by weight.

(b) *Refractive index at 20 °C*. 1.4930 to 1.4980.

(c) *Specific gravity at 25 °/25 °C*. 0.949 to 0.956.

(d) *Odor*. Characteristic odor.

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

§ 21.130 Spike lavender oil, natural.

(a) *Alcohol content (as borneol)*. Not less than 30 percent by weight.

(b) *Esters (as bornyl acetate)*. Not less than 1.5 percent by weight.

(c) *Refractive index at 20 °C*. 1.4630 to 1.4680.

(d) *Specific gravity at 25 °/25 °C*. 0.893 to 0.909.

(e) *Odor*. Characteristic odor.

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

§ 21.131 Sucrose octaacetate.

(a) Sucrose octaacetate is an organic acetylation product occurring as a white or cream-colored powder having an intensely bitter taste.

(b) *Free acid (as acetic acid)*. Maximum percentage 0.15 by weight when determined by the following procedure: Dissolve 1.0 gram of sample in 50 ml of neutralized ethyl alcohol (or S.D.A. No. 3-A, No. 3-C, or No. 30) and titrate with 0.1 N sodium hydroxide using phenolphthalein indicator.

Percent acid as acetic acid = $\frac{\text{ml NaOH used} \times 0.6}{\text{weight of sample}}$

(c) *Insoluble matter*. 0.30 percent by weight maximum.

(d) *Melting point*. Not less than 78.0 °C.

(e) *Purity*. Sucrose octaacetate 98 percent minimum by weight when determined by the following procedure: Transfer a weighed 1.50 grams sample to a 500 ml Erlenmeyer flask containing 100 ml of neutral ethyl alcohol (or S.D.A. No. 3-A, No. 3-C, or No. 30) and exactly 50.0 ml of 0.5 N sodium hydroxide. Reflux for 1 hour on a steam bath, cool and titrate the excess sodium hydroxide with 0.5 N sulfuric acid using phenolphthalein indicator.

Percent sucrose octaacetate = $\frac{(\text{ml NaOH} - \text{ml H}_2\text{SO}_4) \times 4.2412}{\text{weight of sample}}$

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

§ 21.132 Toluene.

(a) *Distillation range*. (For applicable ASTM method, see 1980 Annual Book of ASTM Standards, Part 29, page 569, Standard No. D 362-75 for industrial grade toluene; for incorporation by reference, see § 21.6(b).) When 100 ml of toluene are distilled by this method, not more than 1 ml should distill below 109 °C., and not less than 99 ml below 112 °C.

(b) *Boiling point*. 110.6 °±1 °C.

(c) *Odor*. Characteristic odor.

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(d) *Specific gravity at 15.56 °/15.56 °C.* 0.869 to 0.873.

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

§ 21.133 **Vinegar.**

(a) *Vinegar, 90-grain:*
Acidity (as acetic acid). 9.0 percent by weight, minimum.
 (b) *Vinegar, 60-grain:*
Acidity (as acetic acid). 6.0 percent by weight, minimum.

[T.D. ATF-133, 48 FR 24673, June 2, 1983. Re-designated by T.D. ATF-442, 66 FR 12854, Mar. 1, 2001]

Subpart F—Uses of Specially Denatured Alcohol and Specially Denatured Rum

§ 21.141 **List of products and processes using specially denatured alcohol and rum, and formulas authorized therefor.**

This section lists, alphabetically by product or process, formulas of specially denatured alcohol authorized for use in those products or processes, and lists the code numbers assigned thereto. Specially denatured rum, as well as specially denatured alcohol, may be used in tobacco sprays and flavors, Code No. 460, under Formula No. 4.

USES OF SPECIALLY DENATURED ALCOHOL ¹

Product or process	Code No.	Formulas authorized
Acetaldehyde	551	1, 2-B, 29.
Acetic acid	512	29, 35-A.
Adhesives and binders	036	1, 3-A, 3-C, 12-A, 23-A, 30.
Aldehydes, miscellaneous.	552	1, 2-B, 29.
Alkaloids (processing) ..	344	1, 2-B, 2-C, 3-A, 3-C, 12-A, 13-A, 17, 23-A, 30, 32, 35-A.
Animal feed supplements.	910	35-A.
Antibiotics (processing)	343	1, 2-B, 3-A, 3-C, 12-A, 13-A, 23-A, 30, 32, 35-A.
Antifreeze, proprietary ..	760	1.
Antiseptic, bathing solution (restricted).	220	46.
Antiseptic solutions, U.S.P. or N.F.	244	23-A, 37, 38-B, 38-F.
Bath preparations	142	1, 3-A, 3-B, 3-C, 23-A, 30, 36, 38-B, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Bay rum	112	23-A, 37, 38-B, 39, 39-B, 39-D, 40, 40-A, 40-B, 40-C.

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USES OF SPECIALLY DENATURED ALCOHOL ¹—Continued

Product or process	Code No.	Formulas authorized
Biocides, miscellaneous	410	1, 3-A, 3-B, 3-C, 23-A, 23-H, 27-A, 27-B, 30, 37, 38-B, 39-B, 40, 40-A, 40-B, 40-C.
Blood and blood products (processing).	345	1, 3-A, 3-C, 12-A, 13-A, 23-A, 30.
Brake fluids	720	1, 3-A, 3-C.
Candy glazes	015	13-A, 23-A, 35, 35-A, 45.
Cellulose coatings	011	1, 3-A, 3-C, 23-A, 30.
Cellulose compounds (dehydration).	311	1, 2-B, 3-A, 3-C, 32.
Cellulose intermediates	034	1, 3-A, 3-C, 13-A, 19, 23-A, 32.
Chemicals (miscellaneous).	579	1, 2-B, 2-C, 3-A, 3-C, 6-B, 12-A, 13-A, 17, 20, 29, 30, 32, 36.
Cleaning solutions	450	1, 3-A, 3-C, 23-A, 23-H, 30, 36, 39-B, 40, 40-A, 40-B, 40-C.
Coatings, miscellaneous	016	1, 3-A, 3-C, 23-A.
Colloidions, industrial	034	1, 3-A, 3-C, 13-A, 19, 23-A, 32.
Collodion, U.S.P.	241	13-A, 19, 32.
Colognes	122	38-B, 39, 39-A, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Crude drugs (processing).	341	1, 2-B, 3-A, 3-C, 23-A, 30.
Cutting oils	730	1, 3-A, 3-C.
Dehydration products, miscellaneous.	315	1, 2-B, 3-A, 3-C.
Dentifrices	131	31-A, 37, 38-B, 38-C, 38-D.
Deodorants (body)	114	23-A, 38-B, 39-B, 39-C, 40, 40-A, 40-B, 40-C.
Detergents, household	450	1, 3-A, 3-C, 23-A, 23-H, 30, 36, 39-B, 40, 40-A, 40-B, 40-C.
Detergents, industrial ...	440	1, 3-A, 3-C, 23-A, 30.
Detonators	574	1, 6-B.
Disinfectants	410	1, 3-A, 3-B, 3-C, 23-A, 23-H, 27-A, 27-B, 30, 37, 38-B, 39-B, 40, 40-A, 40-B, 40-C.
Drugs and medicinal chemicals.	575	1, 2-B, 2-C, 3-A, 3-C, 6-B, 12-A, 13-A, 17, 29, 30, 32.
Drugs, miscellaneous (processing).	349	1, 2-B, 3-A, 3-C, 13-A, 23-A, 30, 35-A, 38-B.
Duplicating fluids	485	1, 3-A, 3-C, 30.
Dyes and intermediates	540	1, 2-B, 2-C, 3-A, 3-C, 12-A, 29, 36.
Dyes and intermediates (processing).	351	1, 2-B, 3-A, 3-C, 12-A.
Dye solutions, miscellaneous.	482	1, 3-A, 3-C, 23-A, 30.
Embalming fluids, etc ...	420	1, 3-A, 3-C, 22, 23-A.
Esters, ethyl (miscellaneous).	523	1, 2-B, 2-C, 6-B, 12-A, 13-A, 29, 32, 35-A.
Ether, ethyl	561	1, 2-B, 13-A, 29, 32.
Ethers, miscellaneous ..	562	1, 2-B, 13-A, 29, 32.
Ethyl acetate	521	1, 2-B, 29, 35-A.
Ethylamines	530	1, 2-B, 2-C, 3-A, 3-C, 12-A, 29, 36.
Ethyl chloride	522	1, 2-B, 29, 32.
Ethylene dibromide	571	1, 2-B, 29, 32.
Ethylene gas	572	1, 2-B, 29, 32.
Explosives	033	1, 2-B, 3-A, 3-C.