mixture allowed to stand until completely separated into two layers. The amount of pyridine base layer should be 18.5 ml, minimum.

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

§ 21.123 Pyronate.

Pyronate is a product of the destructive distillation of hardwood meeting the following requirements:

(a) *Acidity (as acetic acid).* Not more than 0.1 percent by weight, determined as follows:

Add 5.0 ml sample to 100 ml distilled water in an Erlenmeyer flask and titrate with 0.1 N NaOH to a bromthymol blue endpoint.

(b) *Color.* The color shall be no darker than the color produced by 2.0 grams of potassium dichromate in 1 liter of water. The comparision shall be made in 4-ounce oil sample bottles viewed crosswise.

(c) *Distillation range.* When 100 ml are distilled not more than 5 ml shall distill below 70 °C., not less than 50 ml below 160 °C., and not less than 90 ml below 205 °C.

NOTE. Any material submitted as pyronate must agree in color, odor, taste and denaturing value with a standard sample furnished by the Alcohol and Tobacco Tax and Trade Bureau to chemists authorized to examine samples of denaturants.

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

§ 21.124 Quassin.

(a) Quassin is the bitter principle of quassia wood (occurring as a mixture of two isomeric forms). It shall be a good commercial grade of purified amorphous quassin, standardized as to bitterness.

(b) *Bitterness.* An aqueous solution of quassin shall be distinctly bitter at a 1 to 250,000 dilution. To test: Dissolve 0.1 gram of quassin in 100 ml of 95 percent alcohol, then dilute 4 ml of the solution to 1,000 ml with distilled water, mix well and taste.

(c) *Identification test.* Dissolve about 0.5 gram of quassin in 10 ml of 95 percent alcohol and filter. To 5 ml of the filtrate, add 5 ml of concentrated hydrochloric acid and 1 mg of phloroglucinol and mix well. A red color develops.

(d) *Optical assay.* When 1 gram of quassin (in solution in a small amount of 95 percent alcohol) is dissolved in 10,000 ml of water, the absorbance of the solution in a 1 cm cell at a wavelength of 258 millimicrons shall not be less than 0.400.

(e) *Solubility.* When 0.5 gram of quassin is added to 25 ml of 190 proof alcohol, it shall dissolve completely.

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

§ 21.125 Rubber hydrocarbon solvent.

(a) Rubber hydrocarbon solvent is a petroleum derivative.

(b) *Distillation range.* When 10 percent of the sample has been distilled into a graduated receiver, the themometer shall not read more than 170 °F. nor less than 90 °F. When 90 percent has been recovered in the receiver the thermometer shall not read more than 250 °F.

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

§ 21.126 Safrole.

(a) *Congealing point.* 10.0° to 11.2 °C.

(b) *Refractive index at 20 °C.* 1.5363 to 1.5385.

(c) *Specific gravity at 15 °/15 °C.* 1.100 to 1.107.

(d) *Odor.* Characteristic odor.

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

§ 21.127 Shellac (refined).

(a) *Arsenic content.* Not more than 1.4 parts per million as determined by the Gutzeit Method (AOAC method 25.020; for incorporation by reference, see § 21.6(c)).

(b) *Color.* White or orange.

(c) *Rosin content.* None when tested by the following method: Add 20 ml of absolute alcohol or glacial acetic acid (m. p. 13° to 15 °C.) to 2 grams of the shellac and thoroughly dissolve. Add 100 ml of petroleum ether and mix thoroughly. Add approximately 2 liters of water and separate a portion of the ether layer (at least 50 ml) and filter if

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. Redesignated 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. Redesignated 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. Redesignated 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. Redesignated 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=ml NaOH used×0.6/ 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=(ml NaOH − ml H_2SO_4)×4.2412/weight of sample

[T.D. ATF–133, 48 FR 24673, June 2, 1983. Redesignated 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.