the fractionating tube so that the mercury bulb is suspended in the center of the fractionating bulb. Heat is applied slowly and in such manner that 5 ml of distillate is collected per minute in a graduated cylinder. At least 50 ml must distill at or below 140 °C. and at least 90 ml below 160 °C.

(c) *Reactions.* Dissolve 1 ml of pyridine bases in 100 ml of water.

(1) Ten ml of this solution are treated with 5 ml of 5 percent aqueous solution of anhydrous fused $CaCl_2$ and the mixture vigorously shaken. An abundant crystalline separation should occur within 10 minutes.

(2) Ten ml of the pyridine solution mixed with 50 ml of Nessler's reagent must give a white precipitate.

(d) *Water content.* Twenty ml of pyridine bases are shaken with 20 ml of a caustic soda solution having a specific gravity of 1.40 (15.56 °/15.56 °C.) and the 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.