mixture distilled in a current of steam until the distillate is no longer alkaline (about 500 ml). The distillate is then titrated with 0.1 N H_2SO_4 using rosolic acid or methyl red as indicator. Not less than 23.2 ml should be required for neutralization.

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

§ 21.120 Nitropropane, mixed isomers of.

(a) *Nitropropane content.* A minimum of 94 percent by weight.

(b) *Total nitroparaffin content.* A minimum of 99 percent by weight.

(c) *Distillation range.* 119° to 113 °C.

(d) *Specific gravity at 20°/20 °C.* 0.992 to 1.003.

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

§ 21.121 Phenyl mercuric benzoate.

(a) *Assay (as phenyl mercuric benzoate).* Not less than 99.0 percent by weight.

(b) *Melting point.* Not less than 94 °C.

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

§ 21.122 Pyridine bases.

(a) *Alkalinity.* One ml of pyridine bases dissolved in 10 ml of water is titrated with 1 N H_2SO_4 until a drop of the mixture placed upon Congo paper shows a distinct blue border, which soon disappears. A minimum of 9.5 ml of the acid must be required for the end point. (Congo paper: filter paper treated with 0.1 percent aqueous solution of Congo red and dried.)

(b) *Distillation range.* One hundred ml of the denaturant are distilled in the following manner: The sample is placed in a short-necked glass flask of about 200 ml capacity which is rested on an asbestos plate having a circular opening of 30 mm in diameter. The neck of this flask is fitted with a fractionating tube 12 mm in diameter and 170 mm long and having a bulb just 1 cm below the side tube which is connected with a Liebig condenser having a water jacket not less than 400 mm in length. A standardized thermometer is placed in 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