

§21.117

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§21.117 Methyl isobutyl ketone.

(a) *Acidity (as acetic acid)*. 0.02 percent by weight, maximum.

(b) *Color*. Colorless.

(c) *Distillation range*. (For applicable ASTM method, see 1980 Annual Book of ASTM Standards, Part 29, page 147, Standard No. D 1153-77; for incorporation by reference, see §21.6(b).) No distillate should come over below 111 °C. and none above 117 °C.

(d) *Odor*. Characteristic odor.

(e) *Specific gravity at 20°/20 °C*. 0.799 to 0.804.

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

§21.118 Methyl *n*-butyl ketone.

(a) *Acidity (as acetic acid)*. 0.02 percent by weight, maximum.

(b) *Color*. Colorless.

(c) *Odor*. Characteristic odor.

(d) *Refractive index at 20 °C*. 1.396 to 1.404.

(e) *Specific gravity at 20°/20 °C*. 0.800 to 0.835.

(f) *Distillation range*. No distillate should come over below 123 °C. and none above 129 °C.

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

§21.119 Nicotine solution.

(a) *Composition*. Five gallons of an aqueous solution containing 40 percent nicotine; 3.6 avoirdupois ounces of methylene blue, U.S.P.; water sufficient to make 100 gallons.

(b) *Color*. One ml of the nicotine solution (previously agitated in the presence of air) is measured into 100 ml of water and thoroughly mixed. Fifty ml of this colored solution is compared, using Nessler tubes, with 50 ml of a standard color solution containing 5 grams of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$, C.P. in 100 ml of water. The color intensity of the solution tested should be equal to or greater than that of the standard solution.

(c) *Nicotine content*. The above solution must contain not less than 1.88 percent of nicotine determined by the following process: 20 ml of the solution are measured into a 500 ml Kjeldahl flask provided with a suitable bulb tube, 50 ml of 0.1 N NaOH added and the

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