

## §21.21

*Essential oil.* Any of the volatile odoriferous natural oils found in plants, which impart to such plants odor, and often other characteristic properties; also, imitations of such natural oils, as well as aromatic substances, and synthetic oils, which possess the denaturing characteristics of such natural oils.

*Gallon.* The liquid measure equivalent to the volume of 231 cubic inches.

*Manufacturer or user.* A person who holds a permit, issued under part 20 of this chapter, to withdraw and use specially denatured alcohol or specially denatured rum, or to recover completely or specially denatured alcohol, or specially denatured rum, or articles manufactured with denatured spirits, or a distilled spirits plant proprietor qualified under Part 19 of this chapter as a processor.

*N.F.* The National Formulary. The latest edition is intended unless otherwise specified. The designations "U.S.P." and "N.F." are considered interchangeable when preparations are transferred from one publication to the other. (For incorporation by reference, see §21.6(a).)

*Proof.* The ethyl alcohol content of a liquid at 60 degrees Fahrenheit, stated as twice the percent of ethyl alcohol by volume.

*Rum.* Any spirits produced from sugar cane products and distilled at less than 190 proof in such manner that the spirits possess the taste, aroma, and characteristics generally attributed to rum.

*S.D.A.* Specially denatured alcohol.

*Specially denatured alcohol.* Those spirits known as alcohol, as defined in this section, denatured pursuant to the specially denatured alcohol formulas authorized under subpart D of this part.

*Specially denatured rum.* Those spirits known as rum, as defined in this section, denatured pursuant to the specially denatured rum formula authorized under subpart D of this part.

*Spirits or distilled spirits.* Alcohol or rum as defined in this part.

*U.S.C.* The United States Code.

*U.S.P.* The United States Pharmacopoeia. The latest edition is intended unless otherwise specified. The designations "U.S.P." and "N.F." are considered interchangeable when preparations are transferred from one publica-

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tion to the other. (For incorporation by reference, see §21.6(a).)

[T.D. ATF-133, 48 FR 24673, June 2, 1983, as amended by T.D. ATF-199, 50 FR 9183, Mar. 6, 1985; T.D. ATF-435, 66 FR 5475, Jan. 19, 2001; T.D. TTB-44, 71 FR 16936, Apr. 4, 2006]

### Subpart C—Completely Denatured Alcohol Formulas

#### §21.21 General.

(a) Alcohol shall be completely denatured only in accordance with formulas prescribed in this subpart (or in accordance with §21.5).

(b) Denaturers may be authorized to add a small quantity of an odorant, rust inhibitor, or dye to completely denatured alcohol. Any such addition shall be made only on approval by the appropriate TTB officer. Request for such approval shall be submitted to the appropriate TTB officer.

(c) Odorants or perfume materials may be added to denaturants authorized for completely denatured alcohol in amounts not greater than 1 part to 250, by weight. However, such addition shall not decrease the denaturing value nor change the chemical or physical constants beyond the limits of the specifications for these denaturants as prescribed in subpart E, except as to odor. Proprietors of distilled spirits plants using denaturants to which such odorants or perfume materials have been added shall inform the appropriate TTB officer, in writing, of the names and properties of the odorants or perfume materials so used.

#### §21.22 Formula No. 18.

To every 100 gallons of ethyl alcohol of not less than 160 proof add:

2.50 gallons of either methyl isobutyl ketone, mixed isomers of nitropropane, or methyl *n*-butyl ketone;

0.125 gallon of pyronate or a similar compound;

0.50 gallon acetaldol (beta-hydroxybutyraldehyde); and

1.00 gallon of either kerosene, deodorized kerosene, gasoline, unleaded gasoline, rubber hydrocarbon solvent, or heptane.

#### §21.23 Formula No. 19.

To every 100 gallons of ethyl alcohol of not less than 160 proof add:

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4.0 gallons of either methyl isobutyl ketone, mixed isomers of nitropropane, or methyl *n*-butyl ketone; and  
1.0 gallon of either kerosene, deodorized kerosene, gasoline, unleaded gasoline, rubber hydrocarbon solvent, or heptane.

**§ 21.24 Formula No. 20.**

(a) *Formula.* To every 100 gallons of ethyl alcohol of not less than 195 proof add:

A total of 2.0 gallons of either unleaded gasoline, rubber hydrocarbon solvent, kerosene, or deodorized kerosene; or any combination of these.

(b) *Authorized use.* Restricted to fuel use, comparable to specially denatured alcohol "Use Code No." 611, 612, 613, 620, and 630.

**Subpart D—Specially Denatured Spirits Formulas and Authorized Uses**

**§ 21.31 General.**

(a) *Formulas for specially denatured spirits.* Alcohol and rum shall be specially denatured only in accordance with formulas prescribed in this subpart (or in accordance with § 21.5).

(b) *Proof of spirits for denaturation.* Alcohol of not less than 185 proof shall be used in the manufacture of all formulas of specially denatured alcohol, unless otherwise specifically stated or unless otherwise authorized by the appropriate TTB officer. Rum for denaturation shall be of not less than 150 proof and may be denatured only in accordance with Formula No. 4.

(c) *Use of Denatured Spirits.* Users and manufacturers holding approved Forms 5150.19 (formerly 1479-A) covering use in processes or manufacture of products no longer authorized for a particular formula may continue that use. Pursuant to written application and subject to the provisions of 26 U.S.C. Chapter 51, Part 20 of this chapter, and this part, the appropriate TTB officer, may authorize the use of any formula of specially denatured alcohol or specially denatured rum for uses not specifically authorized in this part. The code number before each item under "authorized uses" shall be used in re-

porting the use of specially denatured alcohol or specially denatured rum.

[T.D. ATF-133, 48 FR 24673, June 2, 1983, as amended by T.D. ATF-199, 50 FR 9183, Mar. 6, 1985]

**§ 21.32 Formula No. 1.**

(a) *Formula.* To every 100 gallons of alcohol add:

Four gallons of methyl alcohol and either 1/8 avoirdupois ounce of denatonium benzoate, N.F.; 1 gallon of methyl isobutyl ketone; 1 gallon of mixed isomers of nitropropane; or 1 gallon of methyl *n*-butyl ketone.

(b) *Authorized uses.* (1) As a solvent:

- 011. Cellulose coatings.
- 012. Synthetic resin coatings.
- 013. Shellac coatings.
- 014. Other natural resin coatings.
- 016. Other coatings.
- 021. Cellulose plastics.
- 022. Non-cellulose plastics, including resins.
- 031. Photographic film and emulsions.
- 032. Transparent sheeting.
- 033. Explosives.
- 034. Cellulose intermediates and industrial collodions.
- 035. Soldering flux.
- 036. Adhesives and binders.
- 041. Proprietary solvents.
- 042. Solvents and thinners (other than proprietary solvents or special industrial solvents).
- 043. Solvents, special (restricted sale).
- 051. Polishes.
- 052. Inks (not including meat branding inks).
- 053. Stains (wood, etc.).
- 141. Shampoos.
- 142. Soap and bath preparations.
- 311. Cellulose compounds (dehydration).
- 312. Sodium hydrosulfite (dehydration).
- 315. Other dehydration products.
- 320. Petroleum products.
- 331. Processing pectin.
- 332. Processing other food products.
- 341. Processing crude drugs.
- 342. Processing glandular products, vitamins, hormones, and yeasts.
- 343. Processing antibiotics and vaccines.
- 344. Processing medicinal chemicals (including alkaloids).
- 345. Processing blood and blood products.
- 349. Miscellaneous drug processing (including manufacture of pills).
- 351. Processing dyes and intermediates.
- 352. Processing perfume materials and fixatives.
- 353. Processing photographic chemicals.
- 354. Processing rosin.
- 355. Processing rubber (latex).
- 358. Processing other chemicals.
- 359. Processing miscellaneous products.