§ 21.76

410. Disinfectants, insecticides, fungicides, and other biocides.
450. Cleaning solutions (including household detergents).
470. Theater sprays, incense, and room deodorants.

(2) Miscellaneous uses:
812. Product development and pilot plant uses (own use only).

§ 21.76 Formula No. 40–B.

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

One-sixteenth avoirdupois ounce of denatonium benzoate, N.F., and 1⁄8 gallon of tert-butyl alcohol.

(b) **Authorized uses.**

(1) As a solvent:

111. Hair and scalp preparations.
112. Bay rum.
113. Lotions and creams (hand, face, and body).
114. Deodorants (body).
121. Perfumes and perfume tinctures.
122. Toilet waters and colognes.
141. Shampoos.
142. Soaps and bath preparations.
210. External pharmaceuticals, not U.S.P. or N.F.
410. Disinfectants, insecticides, fungicides, and other biocides.
450. Cleaning solutions (including household detergents).
470. Theater sprays, incense, and room deodorants.


§ 21.77 Formula No. 40–C.

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

Three gallons of tert-butyl alcohol.

(b) **Authorized uses.**

(1) As a solvent:

111. Hair and scalp preparations.
112. Bay rum.
113. Lotions and creams (hand, face, and body).
114. Deodorants (body).
121. Perfumes and perfume tinctures.
122. Toilet waters and colognes.
141. Shampoos.
142. Soaps and bath preparations.
210. External pharmaceuticals, not U.S.P. or N.F.
410. Disinfectants, insecticides, fungicides, and other biocides.
450. Cleaning solutions (including household detergents).
470. Theater sprays, incense, and room deodorants.

(2) Miscellaneous uses:
812. Product development and pilot plant uses (own use only).

§ 21.78 Formula No. 42.

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

(1) Eighty grams of potassium iodide, U.S.P., and 109 grams of red mercuric iodide, N.F. XI; or
(2) Ninety-five grams of thimerosal, U.S.P.; or
(3) Seventy-six grams of any of the following: phenyl mercuric nitrate, N.F.; phenyl mercuric chloride, N.F. IX; or phenyl mercuric benzoate.

(b) **Authorized uses.**

(1) As a solvent:

430. Sterilizing and preserving solutions.

(2) Miscellaneous uses:
812. Product development and pilot plant uses (own use only).

§ 21.79 Formula No. 44.

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

Ten gallons of n-butyl alcohol

(b) **Authorized uses.**

(1) As a solvent:

430. Sterilizing and preserving solutions.

(2) Miscellaneous uses:
812. Product development and pilot plant uses (own use only).

§ 21.80 Formula No. 45.

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

Three hundred pounds of refined white or orange shellac.

(b) **Authorized uses.**

(1) As a solvent:

015. Candy glazes.

(2) Miscellaneous uses:
§ 21.81 Formula No. 46.

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

Twenty-five fluid ounces of phenol, U.S.P., and 4 fluid ounces of methyl salicylate, N.F.

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

220. An antiseptic, sterilizing, and bathing solution having restricted use.

(2) Miscellaneous uses:

812. Product development and pilot plant uses (own use only).

(c) Conditions governing use. This formula may be used only by institutions and organizations which are of a semipublic character and engaged in charitable work.

Subpart E—Specifications for Denaturants

§ 21.91 General.

Denaturants prescribed in this part shall comply with the specifications set forth in this subpart. However, in order to meet requirements of national defense or for other valid reasons, the appropriate TTB officer may, pursuant to written application filed by the denaturer, authorize variations from such specifications or authorize the use of substitute denaturants if such variation or substitution will not jeopardize the revenue. Each such application shall identify the applicant by name, address, and permit number; state the number of each formula of specially denatured alcohol involved; explain why the use of the substitute denaturant, or the variation from specifications, as the case may be, is necessary; and include, as applicable, either the identity of the approved denaturant for which substitution is desired and the identity of the substitute denaturant (including the name of the manufacturer) or the identity of the prescribed specifications and the proposed variation from those specifications. The application shall be accompanied by an 8-ounce sample of the proposed denaturing material for analysis.


§ 21.92 Denaturants listed as U.S.P. or N.F.

Denaturing materials and products listed in this part as “U.S.P.” or “N.F.” shall meet the specifications set forth in the current United States Pharmacopeia or National Formulary, or the latest volume of these publications in which the denaturants appeared as official preparations.

§ 21.93 Acetaldehyde.

(a) Aldehyde content (as acetaldehyde). Not less than 95.0 percent by weight.

(b) Color. Colorless.

(c) Odor. Characteristic pungent, fruity odor.

(d) Specific gravity at 15.56 °C/15.56 °C. Not less than 0.7800.

§ 21.94 Acetaldol.

(a) Purity. Not less than 90 percent by weight acetaldol as determined by the following method:

Dissolve 15 grams of the acetaldol in distilled water and dilute to 1 liter in a volumetric flask. Transfer 5 ml of this solution to a 250 ml glass-stoppered flask containing 25 ml distilled water. Add 25 ml of a freshly prepared 1 percent sodium bisulfite solution. Prepare a blank omitting the acetaldol solution. Place the flasks in a dark place away from excessive heat or cold and allow to stand six hours. Remove flasks and titrate free bisulfite with 0.1 N iodine solution using starch indicator.

Percent acetaldol by weight=\left(\frac{\text{ml blank} - \text{ml test}}{20000.44}\right)\times\frac{\text{weight of sample}}{1000}

Tittrations in excess of 100 percent may be obtained if the sample contains appreciable amounts of acetaldehyde.

(b) Specific gravity at 20 °C. 1.098 to 1.105.

§ 21.95 Alpha terpineol.

(a) Boiling point at 752mm 219.4–220.9°C.

(b) Density at 15° 0.9386.

(c) Refractive index at 20° 1.4831.