than 6.8 pounds if solid, or 1 gallon if liquid, of any chemical. When material other than acetaldehyde or ethyl acetate is proposed to be used, the user shall submit an application for such use to the appropriate ATF officer. The application shall include specifications, assay methods, and an 8ounce sample of the substitute material for analysis.

- (b) Authorized uses. (1) As a raw material:
- 511. Vinegar.
- 512. Acetic acid.
- Ethyl acetate. 521.
- 522. Ethyl chloride.
- 523. Other ethyl esters.
- 530. Ethylamines.
- 540 Dyes and intermediates.
- 551 Acetaldehyde.
- Other aldehydes. 552.
- 561. Ethyl ether.
- 562. Other ethers
- 571. Ethylene dibromide.
- Ethylene gas. 572.
- 573. Xanthates.
- Drugs and medicinal chemicals.
- Other chemicals.
- Synthetic rubber.
- 590. Synthetic resins.
  - (2) Miscellaneous uses:
- 812. Product development and pilot plant uses (own use only).
- (c) Conditions governing use. This formula is restricted to processes in which the alcohol loses its identity by being converted into other chemicals.

## §21.57 Formula No. 30.

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

Ten gallons of methyl alcohol.

- (b) Authorized uses. (1) As a solvent:
- 011. Cellulose coatings.
- Synthetic resin coatings.
- 021. Cellulose plastics.
- Non-cellulose plastics, including resins. Photographic film and emulsions. 022.
- 035. Soldering flux.
- Adhesives and binders.
- Solvents and thinners (other than pro-042.prietary solvents or special industrial solvents).
- 051. Polishes.
- 052. Inks (not including meat branding inks).
- 053. Stains.
- Soap and bath preparations. 142.
- 331. Processing pectin.
- 332. Processing other food products.
- 341. Processing crude drugs.

- 342. Processing glandular products, vitamins, hormones, and yeasts.
- Processing antibiotics and vaccines. Processing medicinal chemicals (in-
- cluding alkaloids). Processing blood and blood products.
- 49. Miscellaneous drug processing (including manufacture of pills). 349.
- 352. Processing perfume materials and fixatives.
- 353. Processing photographic chemicals. 358. Processing other chemicals.
- Processing miscellaneous products. 359
- 410. Disinfectants, insecticides, fungicides, and other biocides.
- 430. Sterilizing and preserving solutions.
- Industrial detergents and soaps.
- 450. Cleaning solutions (including household detergents).
- 481. Photoengraving and rotogravure solutions and dyes.
- 482. Other dye solutions.
- Miscellaneous solutions (including duplicating fluids).
  - (2) As a raw material:
- Drugs and medicinal chemicals.
- 576 Organo-silicone products.
- Other chemicals.
- 590. Synthetic resins.
  - (3) As a fluid in:
- 740. Refrigerating uses.
- Other fluid uses:
  - (4) Miscellaneous uses:
- 810. General laboratory and experimental use (own use only).
- 811. Laboratory reagents for sale.
- 812. Product development and pilot plant uses (own use only)

### §21.58 Formula No. 31-A.

- (a) Formula. To every 100 gallons of alcohol add:
- One hundred pounds of glycerin (glycerol), U.S.P., and 20 pounds of hard soap, N.F. XI.
- (b) Authorized uses. (1) As a solvent:
- 113. Lotions and creams (hands, face, and body). 131. Tooth paste and tooth powder.
- 141. Shampoos.
  - (2) Miscellaneous uses:
- 812. Product development and pilot plant uses (own use only).

## §21.59 Formula No. 32.

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

Five gallons of ethyl ether.

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

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- 031. Photographic film and emulsions.
- 034. Cellulose intermediates and industrial collodions.
- 052. Inks (not including meat branding inks).
- 241. Collodion, U.S.P.
- Ethyl cellulose compounds (dehydration).
- 332. Processing miscellaneous food products.
- 342. Processing glandular products, vitamins, hormones, and yeasts.
- 343. Processing antibiotics and vaccines.
- 344. Processing medicinal chemicals (including alkaloids).
- 430. Sterilizing and preserving solutions.
- 481. Photoengraving and rotogravure solutions and dyes.
  - (2) As a raw material:
- 522. Ethyl chloride.
- 523. Other ethyl esters.
- 561. Ethyl ether.
- 562. Other ethers
- 571. Ethylene dibromide.
- 572. Ethylene gas.
- 575. Drugs and medicinal chemicals.
- 579. Other chemicals.
- 580. Synthetic rubber.
  - (3) Miscellaneous uses:
- 812. Product development and pilot plant uses (own use only).

## § 21.60 Formula No. 33.

- (a) Formula. To every 100 gallons of alcohol add:
- Thirty pounds of gentian violet or gentian violet, U.S.P.
  - (b) Authorized uses. (1) As a solvent:
- 052. Inks (not including meat branding inks).
- 210. Éxternal pharmaceuticals, not U.S.P. or N.F.
- 249. Miscellaneous external pharmaceuticals, U.S.P. or N.F.
  - (2) Miscellaneous uses:
- 812. Product development and pilot plant uses (own use only).
- (c) Conditions governing use. Meat branding inks made with Formula No. 33 do not meet U.S. Department of Agriculture meat inspection specifications for use in Federally inspected establishments. Specially denatured alcohol Formulas No. 3-A, 3-C, and 23-A are authorized for this purpose.

# § 21.61 Formula No. 35.

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

- 29.75 gallons of ethyl acetate having an ester content of 100 percent by weight or the equivalent thereof not to exceed 35 gallons of ethyl acetate with an ester content of not less than 85 percent by weight.
  - (b) Authorized uses. (1) As a solvent:
- 015. Candy glazes.
  - (2) Miscellaneous uses:
- 812. Product development and pilot plant uses (own use only).

#### §21.62 Formula No. 35-A.

- (a) Formula. To every 100 gallons of alcohol add:
- 4.25 gallons of ethyl acetate having an ester content of 100 percent by weight or the equivalent thereof not to exceed 5 gallons of ethyl acetate with an ester content of not less than 85 percent by weight.
  - (b) Authorized uses. (1) As a solvent:
- 015. Candy glazes.
- 331. Processing pectin.
- 332. Processing other food products.
- 342. Processing glandular products, vitamins, hormones, and yeasts.
- 343. Processing antibiotics and vaccines.
- 344. Processing medicinal chemicals (including alkaloids).
- 349. Miscellaneous drug processing (including manufacture of pills).
- 358. Processing miscellaneous chemicals.
- 359. Processing miscellaneous products.
  - (2) As a raw material:
- 511. Vinegar.
- 512. Acetic acid.
- 521. Ethyl acetate.
- 523. Other ethyl esters.
- 590. Synthetic resins.
  - 10. Animal feed supplements.
  - (3) Miscellaneous uses:
- 812. Product development and pilot plant uses (own use only).

# § 21.63 Formula No. 36.

- (a) Formula. To every 100 gallons of alcohol add:
- Three gallons of ammonia, aqueous, 27 to 30 percent by weight; 3 gallons of strong ammonia solution, N.F.: 17.5 pounds of caustic soda, liquid grade, containing 50 percent sodium hydroxide by weight; or 12.0 pounds of caustic soda, liquid grade, containing 73 percent sodium hydroxide by weight.
  - (b) Authorized uses. (1) As a solvent:
- 141. Shampoos.
- 142. Soap and bath preparations.