

§ 30.32 Determination of proof obscuration.

(a) *General.* Proof obscuration of spirits containing more than 400 but not more than 600 milligrams of solids per 100 milliliters shall be determined by one of the following methods. The evaporation method may be used only for spirits in the range of 80–100 degrees at gauge proof.

(b) *Evaporation method.* Evaporate the water and alcohol from a carefully measured 25 milliliter sample of spirits, dry the residue at 100 degrees centigrade for 30 minutes and then weigh the residue precisely. Multiply the weight of the residue by 4 to determine the weight of solids in 100 milliliters. The resulting weight per 100 milliliters multiplied by 4 will give the obscuration. Experience has shown that 0.1 gram (100 milligrams) of solids per 100 milliliters of spirits in the range of 80–100 degrees proof will obscure the true proof by 0.4 of one degree of proof. For example, if the weight of solids remaining after evaporation of 25 milliliters 0.125 gram, the amount of solids present in 100 milliliters of the spirits is 0.50 gram (4 times 0.125). The obscuration is 4 times 0.50, which is two degrees of proof. This value added to the temperature corrected hydrometer reading will give the true proof.

(c) *Distillation method.* Determine the apparent proof and temperature of the sample of spirits and then distill a carefully measured sample in a small laboratory still, and collect a quantity of the distillate, 1 or 2 milliliters less than the original sample. The distillate is adjusted to the original temperature and restored to the original volume by addition of distilled water. The proof of the restored distillate is then determined by use of a precision hydrometer and thermometer in accordance with the provisions of § 13.23 to the nearest 0.1 degree of proof. The difference between the proof so determined and the apparent proof of the undistilled sample is the obscuration; or

(d) *Pycnometer method.* Determine the specific gravity of the undistilled sample, distill and restore the samples as provided in paragraph (c) of this section and determine the specific gravity of the restored distillate by means of a pycnometer. The specific gravities so

obtained will be converted to degrees of proof by interpolation of Table 6 to the nearest 0.1 degree of proof. The difference in proof so obtained is the obscuration.

(Sec. 201, Pub. L. 85-859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

[T.D. ATF-198, 50 FR 8535, Mar. 1, 1985, as amended by T.D. ATF-381, 61 FR 37004, July 16, 1996]

DETERMINATION OF QUANTITY

§ 30.36 General requirements.

The quantity determination of distilled spirits that are withdrawn from bond in bulk upon tax determination or payment shall be by weight. The quantity of other distilled spirits or denatured spirits may be determined by weight or by volume. When the quantity of distilled spirits or denatured distilled spirits is determined by volume, such determination may be by meter as provided in 27 CFR Part 19, or when approved by the appropriate ATF officer, another method or device.

(Sec. 201, Pub. L. 85-859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

[T.D. ATF-198, 50 FR 8535, Mar. 1, 1985]

DETERMINATION OF QUANTITY BY WEIGHT

§ 30.41 Bulk spirits.

When spirits (including denatured spirits) are to be gauged by weight in bulk quantities, the weight shall be determined by means of weighing tanks, mounted on accurate scales. Before each use, the scales shall be balanced at zero load; thereupon the spirits shall be run into the weighing tank and proofed as prescribed in § 30.31. However, if the spirits are to be reduced in proof, the spirits shall be so reduced before final determination of the proof. The scales shall then be brought to a balanced condition and the weight of the spirits determined by reading the beam to the nearest graduation mark. From the weight and the proof thus ascertained, the quantity of the spirits in proof gallons shall be determined by reference to Table 4. However, in the case of spirits which contain solids in excess of 600 milligrams per 100 milliliters, the quantity in proof gallons

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shall be determined by first ascertaining the wine gallons per pound of the spirits and multiplying the wine gallons per pound by the weight, in pounds, of the spirits being gauged and by the true proof (determined as prescribed in §30.31) and dividing the result by 100. The wine gallons per pound of spirits containing solids in excess of 600 milligrams per 100 milliliters shall be ascertained by:

(a) Use of a precision hydrometer and thermometer, in accordance with the provisions of §30.23, to determine the apparent proof of the spirits (if specific gravity at the temperature of the spirits is not more than 1.0) and reference to Table 4 for the wine gallons per pound, or

(b) Use of a specific gravity hydrometer, in accordance with the provisions of §30.25, to determine the specific gravity of the spirits (if the specific gravity at the temperature of the spirits is more than 1.0) and dividing that specific gravity (corrected to 60 degrees Fahrenheit) into the factor 0.120074 (the wine gallons per pound for water at 60 degrees Fahrenheit). When withdrawing a portion of the contents of a weighing tank, the difference between the quantity (ascertained by proofing and weighing) in the tank immediately before the removal of the spirits and the quantity (ascertained by proofing and weighing) in the tank immediately after the removal of the spirits shall be the quantity considered to be withdrawn.

(Sec. 201, Pub. L. 85-859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

§ 30.42 Denatured spirits.

The quantity, in gallons, of any lot or package of specially denatured spirits may be determined by weighing it and then dividing its weight by the weight per gallon of the formula concerned, as given in the appropriate tables in subpart H of 27 CFR Part 21. In the case of completely denatured spirits, the gallonage of any lot or package may be ascertained by determining its weight and apparent proof (hydrometer indication, corrected to 60 degrees Fahrenheit) and then multiplying the weight of the wine gallons per pound

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factor shown in Table 4 for the (apparent) proof.

(Sec. 201, Pub. L. 85-859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

§ 30.43 Packaged spirits.

When the quantity of spirits (including denatured spirits when gauged by weight) in packages, such as barrels, drums, and similar portable containers, is to be determined by gauge of the individual packages, such quantity shall, except as provided in paragraph (b) of this section, be determined by weighing each package on an accurate weighing beam or platform scale having a beam or dial showing weight in pounds and half pounds, where packages having a capacity in excess of 10 wine gallons are to be gauged, or in pounds and ounces, or pounds and hundredths of a pound, where packages designed to hold 10 wine gallons or less are to be gauged. In either case the tare must be determined and subtracted from the gross weight to obtain the net weight. From the proof and weight ascertained, the quantity of the spirits in proof gallons shall be determined by reference to Table 2, 3, or 4. However, if the spirits contain solids in excess of 600 milligrams per 100 milliliters, the proof gallons shall be determined as prescribed for such spirits in §30.41. Notwithstanding the provisions of this section or of §30.44, (a) gross weights and tares of packages being filled need not be taken in any case where the gauge of the spirits is not derived from such weights under the gauging procedure being utilized, and (b) meters, other devices, or other methods may be used for determining the quantity of spirits in individual packages, when such meter is used as provided in 27 CFR Part 19, or, when such other device or method has been approved by the appropriate ATF officer.

(Sec. 201, Pub. L. 85-859, 72 Stat. 1358, as amended, 1362, as amended (26 U.S.C. 5204, 5211))

[T.D. ATF-198, 50 FR 8535, Mar. 1, 1985, as amended by T.D. ATF-381, 61 FR 37004, July 16, 1996]

§ 30.44 Weighing containers.

(a) *Weighing containers of more than 10 wine gallons.* The weight of containers