



DEPARTMENT OF THE TREASURY
ALCOHOL AND TOBACCO TAX AND TRADE BUREAU
SCIENTIFIC SERVICES DIVISION
WASHINGTON, DC 20220

OFFICIAL METHOD — SSD:TM:402

Calories in Low Solids Distilled Spirits

Scope and Application

This method is used to determine the calorie content of distilled spirits containing solids less than or equal to 0.6g/100 mL. TTB Procedure 2004-1 requires that all Alcohol Facts Labels include a statement of average analysis for calories, fat, carbohydrate, and protein.

This method is designed to determine the calorie content of low solid distilled spirits consistent with the FDA food nutrition regulation found at 21 CFR 101.9. Low solids distilled spirits contain less than 0.6g/100 mL solids. The bulk of the calories will be due to alcohol. Fat and protein are not expected in low solids distilled spirits.

Regulatory Tolerances

The tolerance limits established by TTB Procedure 2004–1 are as follows:

The statement of caloric content on labels or in advertisements for alcohol beverages will be considered acceptable as long as the caloric content, as determined by TTB analysis, is within the tolerance +5 and -10 calories of the labeled or advertised caloric content. For example, a label or advertisement showing 96 calories will be acceptable if TTB analysis of the product shows a caloric content between 86 and 101 calories.

Equipment

The equipment required is determined by the methods used to determine alcohol and carbohydrate content.

Reagents, Sample Preparation and Handling

The reagents, sample preparation, and handling required are determined by the methods used to determine alcohol and carbohydrate content.

Procedures

1. Determine A, the alcohol content of the distilled spirit product using AOAC OMA 982.10. Convert to units of % by weight (g/100 mL).

2. Determine TC, the carbohydrate content using TTB Official Method SSD:TM:406. Convert to units of g/100mL.

Quality Control

The quality control measures required are determined by the methods used to determine alcohol and carbohydrate content.

Calculations

$$\text{Calories/1.5 oz serving} = 0.44 \times [(6.9 \times A) + (4 \times \text{TC})]$$

Where: 1.5 oz serving = 44 mL.

A = alcohol % by weight.

TC = total carbohydrate.

Reporting Results

Report calories to the nearest whole number, i.e. XX/1.5 fl.oz.

Safety Notes

None.

References

- TTB Procedure 2004–1.
- ATF Ruling 80–3.
- 21 CFR 101.9.
- A. L. Merrill and B. K. Watt, “Energy Value of Foods—Basis and Derivation,” USDA Handbook 74; (Available online at: <http://www.nal.usda.gov/fnic/foodcomp/Data/Classics/ah74.pdf>).
- Official Methods of Analysis, 17th Edition, 2002; Horowitz; AOAC International, Maryland.