

**DEPARTMENT OF THE TREASURY**  
**ALCOHOL AND TOBACCO TAX AND TRADE BUREAU**  
**FORMULA AND PROCESS FOR NONBEVERAGE PRODUCT**  
*(See instructions after page 2)*

			1. FORMULA NUMBER
			2. KIND (e.g. Alcohol, Rum) & PROOF OF SPIRITS ON WHICH DRAWBACK WILL BE CLAIMED
3. NAME OF PRODUCT	4. CHECK IF SAMPLE WILL BE SUBMITTED	5. NUMBER OF DAYS TO COMPLETE PROCESS	
6. NAME OF MANUFACTURER & ADDRESS WHERE PRODUCT WILL BE PRODUCED <i>(If multiple production sites, list other addresses on the next page.)</i>  MAILING ADDRESS <i>(if different from manufacturing address)</i>	7. CHECK KIND OF PRODUCT MEDICINE/MEDICINAL PREPARATION FLAVOR/FLAVORING EXTRACT FOOD PRODUCT      PERFUME DIETARY SUPPLEMENT		8. FORMULAS SUPERSEDED
	9. ELIGIBLE ABSOLUTE ALCOHOL BY VOLUME USED		10. ALCOHOL CONTENT BY VOLUME OF FINISHED PRODUCT
			%
			11. IF MADE WITH RECOVERED SPIRITS: ELIGIBLE PLUS RECOVERED ABSOLUTINE ALCOHOL BY VOLUME USED
			%
12. FORMULA AND PROCESS <i>(Use additional space on the next page if necessary)</i>			

12a. THEORETICAL YIELD <i>(Weight and Volume)</i>	12b. ACTUAL YIELD <i>(Weight and Volume)</i>	12c. DENSITY OF FINAL PRODUCT <i>(ex: lbs/gal, g/mL)</i>
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12d. MANUFACTURING PROCESS *(Use additional space on the next page if necessary)*

12e. UNFIT FOR BEVERAGE PURPOSES STATEMENT *(Use additional space on the next page if necessary)*

13. CONTACT PERSON <i>(Include Area Code, Phone No. and E-mail Address)</i>	14. SIGNATURE & TITLE OF APPLICANT OR AUTHORIZED AGENT	15. DATE
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FOR TT B USE ONLY

16. SAMPLE ID #	17. ATTACHMENT #	18. SUBMISSION ID #
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19. **SPACE FOR CONTINUATION** *(Please indicate item number(s) being continued.)*

A large, empty rectangular box with a black border, intended for providing a continuation of the information from item 19.

# INSTRUCTIONS

## GENERAL INSTRUCTIONS

Before filling out this form read carefully Subpart F of Part 17, Title 27, Code of Federal Regulations. Submit a separate formula for each nonbeverage product made with tax paid distilled spirits on which drawback is claimed (except current U.S.P., N.F., and H.P.U.S. preparations for which quantitative formulas are not required).

This form must be filed within 6 months after the end of the quarter in which distilled spirits were first used to manufacture the product for drawback. Submit to: Deputy Director, Nonbeverage Alcohol and Tobacco Branch, 6000 Ammdale Road, Beltsville, MD 20705-1250.

An alternative way to submit formulas electronically via Formulas Online can be found at <https://www.ttb.gov/formulation/fonl-main.shtml>.

## SPECIFIC INSTRUCTIONS

### ITEM 1 – FORMULA NUMBER.

Formula numbers begin with number "1" for the first submission and progress sequentially with future submissions. For numbering when formulas will be used at more than one plant, see 27 CFR 17.121(c). In Formulas Online this number is the Company Formula # which is different from the automatically generated TTB Formula ID.

### ITEM 2 – KIND & PROOF OF SPIRITS ON WHICH DRAWBACK WILL BE CLAIMED.

Enter the kind and proof of the eligible spirits used. Include intermediate products where applicable (see 27 CFR 17.154).

### ITEM 3 – NAME OF PRODUCT.

The name must reflect the type of product. For detailed naming guidelines, refer to the Drawback Tutorial at <http://www.ttb.gov/ssd/dbmenu4.shtml>

### ITEM 4 – CHECK IF SAMPLE WILL BE SUBMITTED.

The submission of samples is required for certain types of products (27 CFR 17.124). Please refer to the Drawback Tutorial for more guidance. If it is known that a sample will be submitted, either with the formula or under separate cover, please check the box.

### ITEM 5 – NUMBER OF DAYS TO COMPLETE PROCESS.

State the number of days it takes to manufacture the product. If it takes only a few hours to mix it, but takes an additional day to filter it, that should be noted.

### ITEM 6 – NAME OF MANUFACTURER & ADDRESS WHERE PRODUCT WILL BE PRODUCED.

State the manufacturing location. If you wish the form to be returned to another address, include this address also.

### ITEM 7 – CHECK KIND OF PRODUCT.

Indicate the type of product. Cough syrups and cold relief products are considered medicine/medicinal preparations. Cakes and similar products are considered to be food products, while products such as lemon extracts are considered flavors. Submit commercial labels or facsimiles and any available supporting data for bitters (*flavoring or medicinal*) and for any other product that cannot be readily classified in the product types listed.

### ITEM 8 – FORMULAS SUPERSEDED.

State the number(s) of any formulas to be replaced by the current submission. If formula(s) being superseded have been approved for use at plant(s) other than the one in item 6, specify such plant(s).

### ITEM 9 – ELIGIBLE ABSOLUTE ALCOHOL BY VOLUME USED.

Determine the quantity of absolute alcohol used by multiplying the quantity of alcohol used by the percentage of alcohol (as a decimal). Divide the quantity (in volume) of absolute alcohol used in manufacturing and standardizing the product by the actual yield (in volume) of finished product. Multiply the result by 100 to get percent by volume.

If there are multiple sources of eligible alcohol, add the amounts of eligible absolute alcohol in your product and divide that sum by the volume of product produced. Eligible alcohol includes alcohol contained in intermediate products (as defined in 27 CFR 17.11) but NOT alcohol contained in nonbeverage products, being used as ingredients, on which drawback may be claimed separately. Please keep in mind that this is an entirely calculated value and therefore may sometimes exceed 100%. If a range include the reason(s) for variation in Item 12 or 19 (such as there is a range in the amount of alcohol used or a range in the yield).

If the finished product is not a liquid, express as "proof gallons (pg) per batch". To determine proof gallons take the absolute alcohol in gallons and multiply by 2. If metric units are stated in the formula, liters must be converted to gallons in order to calculate the proof gallons. The batch size should be defined in Item 9 such as proof gallons per number of items or proof gallons per number of pounds.

Examples:

English:  
3.68 gal of 95% alcohol used with a 11.5 gal Yield:  
 $((3.68 \text{ gal} * .95) / 11.5 \text{ gal}) * 100 = 30.4\% \text{ by volume}$

English:  
5 gal of 45% alcohol used with a 100 cake Yield:  
 $(5 \text{ gal} * .45) * 2 = 4.5 \text{ proof gallons per 100 cakes}$

Metric:  
2.50 L of 50% alcohol used with a 10.8 L Yield:  
 $((2.50 \text{ L} * .50) / 10.8 \text{ L}) * 100 = 11.6\% \text{ by volume}$

Metric:  
5 L of 45% alcohol used with a 10 kg Yield:  
 $(5 \text{ L} / 3.785 \text{ L/gal}) = 1.32 \text{ gal}; (1.32 \text{ gal} * .45) * 2 = 1.2 \text{ pg} / 10 \text{ kg}$

### ITEM 10 – ALCOHOL CONTENT BY VOLUME OF FINISHED PRODUCT.

State the actual percentage of absolute alcohol by volume in the finished liquid product. If the product is not a liquid, state the actual percentage of absolute alcohol by weight in the finished solid product. Include all alcohol, both eligible and ineligible. For most processes this value is a calculated value. If there is processing such as heating where alcohol is lost the stated value can be an analysis value. When using an analysis value in Item 10 the reason for doing so should be stated in Item 12 or 19. A tolerance should be included with the percentage of alcohol in Box 10. Please see the Drawback Tutorial for the tolerance table.

[https://www.ttb.gov/ssd/pdf/tolerance\\_table.pdf](https://www.ttb.gov/ssd/pdf/tolerance_table.pdf).

When the product is analyzed the analysis value should fall within the tolerance range stated in Item 10.

Examples:

Liquid:  
A simple mixture using 3.68 gal of 95% alcohol and 0.51 gal of 3% alcohol used with an 11.5 gal Yield  
 $((3.68 \text{ gal} * .95) + (0.51 \text{ gal} * .03)) / 11.5 \text{ gal} * 100 = 30.5\% \text{ by volume (+/- 1.5)}$

Solid:  
A solid product using 3.68 gal of 95% alcohol and 0.51 gal of 3% alcohol used with 100 lb Yield  
 $((3.68 \text{ gal} * .95) + (0.51 \text{ gal} * .03)) * 6.6097 \text{ lb/gal} / 100 \text{ lb} * 100 = 23.2\% \text{ by weight (+/- 1.5)}$

### ITEM 11 – IF MADE WITH RECOVERED SPIRITS ELIGIBLE PLUS RECOVERED ABSOLUTE ALCOHOL BY VOLUME USED.

Answer only if recovered alcohol will be used to make this product. Add the quantities, of all eligible absolute spirits used (*including eligible spirits recovered from intermediate products*) AND all ineligible recovered spirits used; then divide by the actual yield of finished product, and multiply the result by 100. A range may be stated. If the finished product is not a liquid, express as "proof gallons (pg) per batch." The batch size should be defined in Item 11 such as proof gallons per number of items or proof gallons per number of pounds.

### ITEM 12 – FORMULA AND PROCESS.

List the name, quantity, and alcohol content (by volume), if any, of each ingredient used. Either metric or English units may be used. Usage of ingredients containing alcohol and the yield of liquid products must be expressed in volume. Include the proof of eligible spirits and recovered spirits used. Show the approximate loss of spirits, if any, during processing (*i.e. filtration, evaporation, etc.*), and indicate what quantity of alcohol and its proof, if any, is recovered. If the manufacturing process involves separate stages, fully describe them and indicate the alcohol content (*as a percent by volume*) and yield (*as a volume*) at the end of each stage.

Give the product name and TTB formula no. (*Form TTB Form 5154.1 or ATF F 1678*) of alcoholic ingredients if self-manufactured. If purchased, give the manufacturer's name, the name of the product, and the TTB formula number, if known.

Identify any colors by their official FDA designations (e.g. *caramel*, *FD&C Yellow No. 5*). Label all limited ingredients as such. Provide quantities of limited ingredients present in self-manufactured and purchased products

**ITEM 12a – THEORETICAL YIELD.**

The theoretical yield is the sum of all ingredients added prior to any processing and will equal 100%.

**ITEM 12b – ACTUAL YIELD.**

The actual (final) yield is the amount of product that remains at the end of the manufacturing process. Theoretically, if there is no loss of product during production, the actual yield would equal 100%. In some processes, there may be a loss of product. In these cases the actual yield would be less than 100%. *The actual yield should not be higher than the theoretical yield in any situation.*

**ITEM 12c – DENSITY.**

Density is mass divided by volume. It is usually measured in grams per milliliter or pounds per gallon. To calculate the density, divide mass (how much it weighs) by volume (how much space it takes up).

**ITEM 12d – MANUFACTURING PROCESS.**

Describe the manufacturing process (i.e. *simple mixture, filtration, maceration, percolation, etc.*). For processes other than simple mixtures and filtrations, detailed process information should be stated in Item 12 or 19.

**ITEM 12e – UNFIT FOR BEVERAGE PURPOSES STATEMENT.**

When possible, cite a specific guideline that makes the nonbeverage product unfit for beverage purposes. For more guidance, refer to TTB's Drawback Tutorial. <https://www.ttb.gov/ssd/dbmenu3sub1.shtml>.

**Formula Example:**

**NATURAL AND ARTIFICIAL RASPBERRY FLAVOR:**

N&A Raspberry Flavor – TTB # 52, 3% alc v/v	4.1 lbs (0.51 gal)
Limited Ingredients: Propylene Glycol = 40% w/w, Art Vanillin = 2% w/w	
Alcohol - 190 proof	25.0 lbs (3.68 gal)
Propylene Glycol (limited ingredient)	55.8 lbs
Citric Acid, anhydrous	15.0 lbs
Nat Ethyl Butyrate (0.05 lbs) and other natural esters	0.1 lbs
Final Yield	100 lbs (11.5 gal)

**ITEM 14 – SIGNATURE & TITLE OF APPLICANT OR AUTHORIZED AGENT.**

The applicant or his/her authorized agent must sign in the space provided and indicate the capacity in which he/she is signing (e.g. *sole proprietor, attorney-in-fact, etc.*)

This form can be obtained online at <http://www.ttb.gov/forms/5000.shtml> or by calling 1-877-882-3277 or by mail at the National Revenue Center, 550 Main St, Ste. 8002, Cincinnati, OH 45202-5215.

**PAPERWORK REDUCTION ACT NOTICE**

This request is in accordance with the Paperwork Reduction Act of 1995. This form is used by TTB to determine if the product is nonbeverage in character so that the manufacturer may file for drawback of taxes. The information is required to obtain a benefit.

The estimated burden associated with this collection of information is 30 minutes per respondent or record keeper, depending on individual circumstances. Comments concerning the accuracy of this burden estimate and suggestions for reducing this burden should be addressed to the Reports Management Officer, Regulations and Rulings Division, Alcohol and Tobacco Tax and Trade Bureau, 1310 G Street, NW., Box 12, Washington, DC 20005.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a current, valid OMB control number.

**TTB F 5154.1 (08/2019)** *Previous versions are obsolete.*