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## **Use of Propylene Glycol Monomethyl Ether (PGME) as a Prescribed Ingredient in Special Industrial Solvents**

*The Alcohol and Tobacco Tax and Trade Bureau (TTB) authorizes Propylene Glycol Monomethyl Ether (PGME) as a prescribed ingredient in special industrial solvent general-use formulas*

### **TTB RUL. 2010-1**

#### **Introduction**

The Alcohol and Tobacco Tax and Trade Bureau (TTB) has been asked by a proprietor whether Propylene Glycol Monomethyl Ether (PGME) may be used as a substitute for Ethylene Glycol Monoethyl Ether (EGEE) in the special industrial solvent general-use formula prescribed in 27 CFR 20.112. A concern for the risks associated with the occupational exposure to EGEE has prompted the proprietor to explore the use of a safer alternative.

#### **Background**

Pursuant to 26 U.S.C. 5273(a), TTB approves formulas for articles made with specially denatured alcohol (SDA). Several such formulas have been approved for general use and are published in TTB regulations, 27 CFR 20.111 – 20.119. One such “general-use formula” is special industrial solvents. Under § 20.112, special industrial solvents shall be made with S.D.A. Formula No. 1, 3A, or 3C and shall contain, for every 100 parts (by volume) of alcohol: (1) no less than 1 part (by volume) of one or any combination of the authorized denaturants listed in § 20.112(a)(1); and (2) no less than 5 parts (by volume) of one or any combination of authorized denaturants listed in § 20.112(a)(2). The authorized denaturants listed in § 20.112(a)(1) are methyl isobutyl ketone, methyl n-butyl ketone, nitropropane (mixed isomers), and EGEE.

According to § 20.111, TTB may approve a general-use formula through publication of a TTB ruling, and any interested person may petition for the approval of such a formula.

To approve PGME as an ingredient acceptable for use in the special industrial solvents general-use formula under § 20.112, TTB must determine in accordance with 27 CFR 20.189(d):

1. That the proposed material makes the finished article unfit for beverage or internal human medicinal use, and
2. That the proposed material will be adequate to protect the Federal excise tax revenue by preventing the reclamation or diversion of ethanol from the finished article for beverage or internal human use.

**TTB Determination on the Use of PGME as an Ingredient in Special Industrial Solvent General-Use Formula**

After examining the specifications supplied by the proprietor, and after conducting a physical examination of the ingredient, TTB has determined that PGME has specifications similar to EGEE. TTB has determined that the use of PGME as an alternative to or in combination with the ingredients listed in § 20.112(a)(1) will render ethanol unfit for beverage and internal human medicinal use, and will provide adequate protection of the Federal excise tax revenue.

*Held:* In the special industrial solvents general-use formula under § 20.112, PGME may be used, alone or in any combination with the ingredients listed in § 20.112(a)(1).

*Held further:* As approved here, PGME meets the following specifications:

- Specific Gravity at 20°C/20°C: 0.90-0.95
- Boiling point: 117°-125°C
- Color: Colorless
- Odor: Characteristic (ethereal) odor

Date signed: Jan. 12, 2010

**Signed by John J. Manfreda**

John J. Manfreda  
Administrator  
Alcohol and Tobacco Tax and Trade Bureau