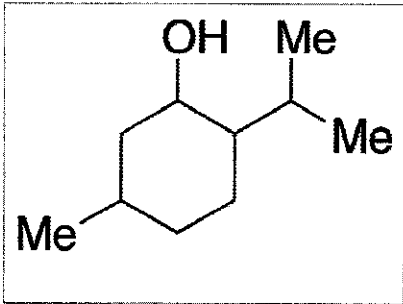


cr. 16 poz. 44

CERTIFICATE OF ANALYSIS

1. Identification

Catalogue Number:	M218900	CAS Number:	89-78-1
Product:	DL-Menthol	Synonym:	5-Methyl-2-(1-methylethyl)cyclohexanol; 1-Methyl-4-isopropyl-3-cyclohexanol; 2-Isopropyl-5-methylcyclohexan-1-ol; 2-Isopropyl-5-methylcyclohexanol; 3-Hydroxy-p-menthane; 5-Methyl-2-(1-methylethyl)cyclohexanol; 5-Methyl-2-isopropylcyclohexanol; Menthyl Alcohol; p-Menthan-3-ol;
Structure:			
Lot Number:	8-HBN-151-1	Purity:	98%
Shipping Condition:	This Product Is Stable To Be Shipped At Room Temperature	Storage Condition:	Refrigerator
		Molecular Formula:	C ₁₀ H ₂₀ O
		Molecular weight:	156.27
		Source of Product:	N/A
		Solubility:	Chloroform (Slightly), Methanol (Slightly)

2. Warning

Warning 1:	Not Determined	Warning 2:		Warning 3:	
-------------------	----------------	-------------------	--	-------------------	--

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Off-White Low-Melting Solid	Off-White Low-Melting Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 75.12, %H: 12.75
MS	Conforms to Structure	Conforms

Additional Information:

TLC Conditions: SiO₂; Hexanes : Ethyl Acetate = 8 : 2; Visualized with AMCS; Single Spot, R_f = 0.35. Elemental Analysis: (Theoretical) %C: 76.86, %H: 12.90

Purity is based on the analytical results of the tests performed. NMR and TLC may have an accuracy +-2%. Isotopic purity is based on mass distribution observed.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Rhonda Tu	Eric Beaton	My Nguyen	9/19/2018	9/17/2022
<i>RTU</i>	<i>EB</i>	<i>HBN</i>		