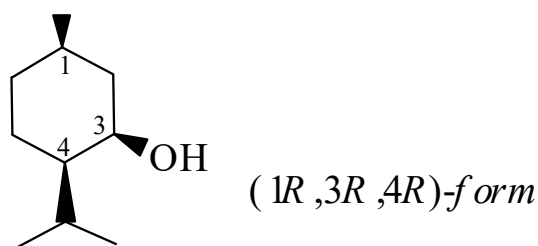




>>Entry Name: *p*-Menthane-3-ol

ENTRY UNDER REVIEW

Synonym(s): 5-Methyl-2-(1-methylethyl)cyclohexanol. 2-Isopropyl-5-methylcyclohexanol



CAS Registry Number: 1490-04-6

Related CAS Registry Numbers(s): 491-01-0 16409-45-3

Molecular Formula: C₁₀H₂₀O

Molecular Weight: 156.267

Accurate Mass: 156.151415

Percentage Composition: C 76.86%; H 12.90%; O 10.24%

Biological Source: Found in many essential oils

Calculated Log P Data: Log P 3.23 (calc)

Fluka: 63670

>>Variant: (1*R*,3*R*,4*R*)-form

Synonym(s): (+)-Neoisomenthol

CAS Registry Number: 20752-34-5

Molecular Formula: C₁₀H₂₀O

Molecular Weight: 156.267

Accurate Mass: 156.151415

Percentage Composition: C 76.86%; H 12.90%; O 10.24%

Physical Description: Oil

Melting Point: Mp -8°

Boiling Point: Bp 214.6°

Optical Rotation: $[\alpha]_{\text{D}}^{18} +3.8$ (c, 6 in EtOH)

>>Variant: (1*R*,3*R*,4*S*)-form

Synonym(s): (-)-Menthol. Levomenthol, BAN, INN. Menthacamphor. Peppermint camphor. FEMA 2665

CAS Registry Number: 2216-51-5

Molecular Formula: C₁₀H₂₀O

Molecular Weight: 156.267

Accurate Mass: 156.151415

Percentage Composition: C 76.86%; H 12.90%; O 10.24%

Biological Source: Present in large amts. in peppermint oil (*Mentha piperita*), also in other *Mentha* spp., *Artemisia* spp., *Glechoma hederacea* and others. Prod. semisynthetically on industrial scale by catalytic asymm. cyclisation from open-chain achiral allylamine using Rh/BINAP catalytic system

Use/Importance: Used in confectionery, perfumery, menthol cigarettes, inhalers, etc. Mild local anaesthetic, analgesic, antipruritic agent and used internally as a carminative. Counter-irritant. Used to determine the optical purity of amino acids. Flavouring agent

Physical Description: Cryst. (MeOH) with strong peppermint odour

Melting Point: Mp 42.5-43°

Boiling Point: Bp 216°

Optical Rotation: $[\alpha]_{\text{D}}^{20} -50$ (c, 2 in CHCl₃)

Solubility: Sl. sol. H₂O; v. sol. org. solvs.

Calculated Log P Data: Log P 3.23 (calc)

Other Data: Exists in four cryst. modifications; Mp given is the highest. Component of Larylgan

Hazard & Toxicity: Can cause hypersensitivity reactions and contact dermatitis. Gastrointestinal and CNS effects by ingestion. LD₅₀ (rat, orl) 3300 mg/kg

Aldrich: M278-0

Fluka: 63660

Sigma: M2258

>>Derivative: Ac