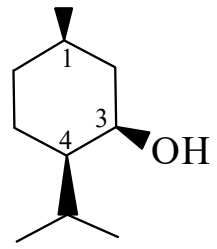
>>**Entry Name: *p*-Menthan-3-ol**
ENTRY UNDER REVIEW
Synonym(s): 5-Methyl-2-(1-methylethyl)cyclohexanol. 2-Isopropyl-5-methylcyclohexanol



(1*R*,3*R*,4*R*)-form

CAS Registry Number: 1490-04-6
Related CAS Registry Numbers(s): 491-01-0 16409-45-3

Molecular Formula: $C_{10}H_{20}O$
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: $C_{10}H_{20}O$
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: $[\alpha]_D^{18}$+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: $C_{10}H_{20}O$
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: $[\alpha]_D^{20}$–50 (c, 2 in $CHCl_3$)
Solubility: Sl. sol. H_2O; 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. LD_{50} (rat, orl) 3300 mg/kg

Aldrich: M278-0
Fluka: 63660
Sigma: M2258

>>**Derivative:** Ac