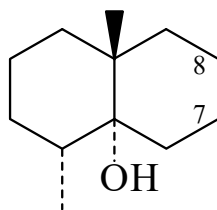




>>Entry Name: Geosmin

ENTRY UNDER REVIEW

Synonym(s): Octahydro-4,8*a*-dimethyl-4*a*(2*H*)-naphthalenol, 9*Cl*. 1,10-Dimethyl-9-decalol. 11,12,13-Trinor-5-eudesmanol



Absolute
configuration

CAS Registry Number: 19700-21-1

Related CAS Registry Numbers(s): 5173-69-3 5173-70-6 16452-32-7 23333-91-7 62823-65-8 73428-92-9

Molecular Formula: C₁₂H₂₂O

Molecular Weight: 182.305

Accurate Mass: 182.167065

Percentage Composition: C 79.06%; H 12.16%; O 8.78%

General Statement: Noreudesmane numbering shown

Biological Source: Odorous substance produced by *Streptomyces* spp. and blue-green algae

Use/Importance: Implicated in off-flavour of shellfish, freshwater fish, drinking water and some vegetables

Physical Description: Oil with characteristic penetrating earthy odour

Optical Rotation: $[\alpha]_D^{25} -140$ (MeOH). $[\alpha]_D -16.5$ (CHCl₃)

Other Data: Stereoisomers known synthetically

>>Derivative: 7,8-Didehydro

Synonym(s): 1,2,3,4,4*a*,5,8,8*a*-Octahydro-4,8*a*-dimethylnaphthalen-4*a*-ol. 11,12,13-Trinor-7-eudesmen-5-ol. **Dehydrogeosmin**

Molecular Formula: C₁₂H₂₀O

Molecular Weight: 180.289

Accurate Mass: 180.151415

Percentage Composition: C 79.94%; H 11.18%; O 8.87%

Biological Source: Constit. of various cactus spp. flower scents

Physical Description: Oil

>>Variant: (±)-form

CAS Registry Number: 16423-19-1

Molecular Formula: C₁₂H₂₂O

Molecular Weight: 182.305

Accurate Mass: 182.167065

Percentage Composition: C 79.06%; H 12.16%; O 8.78%

Physical Description: Oil, cryst. on standing

Melting Point: Mp 78-82°

Sigma: G5908

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Gerber, N.N., *Dev. Ind. Microbiol.*, 1978, **20**, 225, (*rev*)
Maga, J.A. *et al.*, *Food Rev. Int.*, 1987, **3**, 269-284, (*occur, rev*)
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Swarts, H.J. *et al.*, *Tetrahedron*, 1992, **48**, 5497, (*synth*)
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Saito, A. *et al.*, *Tetrahedron: Asymmetry*, 1996, **7**, 2923, (*synth*)