

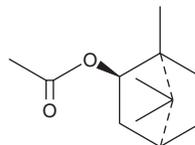
PRODUCT INFORMATION



(±)-Bornyl Acetate

Item No. 29617

CAS Registry No.: 76-49-3
Formal Name: (1R,2S,4R)-*rel*-1,7,7-trimethyl-
bicyclo[2.2.1]heptan-2-ol, 2-acetate
MF: C₁₂H₂₀O₂
FW: 196.3
Purity: ≥95%
Supplied as: An oil
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(±)-Bornyl acetate is supplied as an oil. A stock solution may be made by dissolving the (±)-bornyl acetate in the solvent of choice, which should be purged with an inert gas. (±)-Bornyl acetate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (±)-bornyl acetate in these solvents is approximately 15, 2, and 25 mg/ml, respectively.

(±)-Bornyl acetate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (±)-bornyl acetate should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (±)-Bornyl acetate has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(±)-Bornyl acetate is a racemic mixture of the acetate form of the monoterpene alcohol borneol (Item Nos. 23467 | 23468) that has been found in *P. silvestris*.^{1,2} (±)-Bornyl acetate induces an electroantennogram (EAG) response in isolated *P. americana* (American cockroach) antennae from both male and female cockroaches that is similar to the response induced by sex pheromones.³ It also induces hydrogen peroxide production and apoptosis in *M. polymorpha* plant cells.⁴

References

1. Bardyshev, I.I. and Pertsovskii, A.L. Chemical composition of oxygen-containing gum turpentine fractions from *Pinus silvestris*. *Dokl. Akad. Nauk BSSR* **13(7)**, 617-620 (1969).
2. Oritani, T. and Yamashita, K. Microbial resolution of (±)-borneolst. *Agr. Biol. Chem.* **38(10)**, 1961-1964 (1974).
3. Washio, H. and Nishino, C. Electroantennogram responses to the sex pheromone and other odours in the American cockroach. *J. Insect Physiol.* **22(5)**, 735-741 (1976).
4. Izumi, S., Nishio, Y., Takashima, O., et al. Monoterpenoids, potent inducers of apoptosis in the cells of *Marchantia polymorpha*. *Chem. Lett.* **26(8)**, 837-838 (1997).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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