

Limonene Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Limonene

Catalog No.: CFN93050

Cas No.: 138-86-3

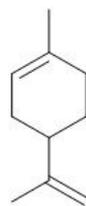
Purity: >=98%

M.F: C₁₀H₁₆

M.W: 136.2

Physical Description: Oil

Synonyms: Cyclohexene, 1-methyl-4-(1-methylethenyl)-; (4S)-1-methyl-4-(prop-1-en-2-yl) cyclohexene; DL-Limonene.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Agricultural research;
6. Others.

[Source]

The peel of *Citrus limon*.

[Biological Activity or Inhibitors]

Limonene is used as insecticide to control ectoparasites of pet animals, but it has activity against many insects, mites, and microorganisms, in few cases limonene-treated plants have become attractive to plant damaging insects and phytotoxic effects on cultivated plants have been observed; suggests that limonene and other monoterpenes may have use in pest and weed control in organic agriculture after phytotoxicity on crop plants.^[1]

Limonene, α -pinene, and β -pinene have hygroscopic properties of aerosol formed by oxidation.^[2]

d-Limonene has inhibition of 7,12-dimethylbenz[a]anthracene (DMBA)-induced mammary cancer, and can cause the regression of frank mammary tumors. ^[3]

Air oxidation of d-limonene is essential for its sensitizing potential, and that potent allergens are created.^[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[5]

Mobile phase: 0.01% Trifluoroacetic acid in water- 0.01% Trifluoroacetic acid in 70% acetonitrile, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 260 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

[1] Ibrahim M, Kainulainen P, Aflatuni A, *et al. Agricultural & Foodence in Finland, 2008,*

10(3):243-59.

[2] Virkkula A, Dingenen R V, Raes F, *et al.* *Journal of Geophysical Research Atmospheres*, 1999, 104(D3):3569-79.

[3] Elegbede J A, Elson C E, Qureshi A, *et al.* *Carcinogenesis*, 1984, 5(5):661-4.

[4] Karlberg A T, Magnusson K, Nilsson U. *Contact Dermatitis*, 1992, 26(5):332-40.

[5] Cho H J, Jhee K H, Yoo D C, *et al.* *Korean J. Food Sci. Technol.*, 2008, 40(3):277-82.

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