

Chemical profile – R(-)-Carvone

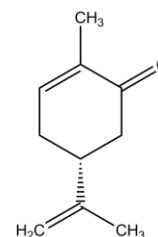
Basic information

IUPAC name: (R)-5-isopropenyl-2-methyl-2-cyclohexenone

Other names: (R)-(-)-p-mentha-6,8-dien-2-one, L-carvone

Molecular formula: C₁₀H₁₄O

Molecular weight: 150.22 g mol⁻¹



Physical properties

Appearance: Light yellow liquid

Relative density: 0.960 g cm⁻³

Melting point: Not available

Boiling point: 227 - 230 °C

Flash point: 94 °C



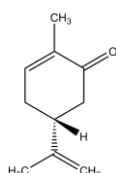
Occurrence and uses

R(-)-carvone is the main constituent of spearmint (*Mentha spicata*) and due to its minty odour it is often added to toothpaste, mouth washes and chewing gums. It has mild carminative and antispasmodic properties and is used in the treatment of certain maladies, particularly for children. Carvone (R and S enantiomers) is antimicrobial and is used in aromatherapy massage treatment for several skin disorders and nervous tensions,¹.

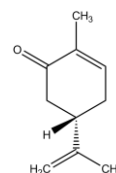
1. See Learn Chemistry 'Substance: Carvone'

Links to curriculum

Stereoisomers:



R(-)-carvone



S(+)-carvone

Functional groups: Carbonyl, alkenes

Use in practical experiments: Learn Chemistry resource 'Properties of the carvones'



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