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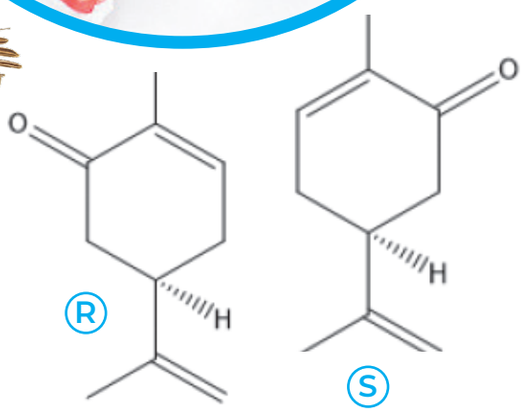
advancing structural science

Carvone.

Compound name:
2-Methyl-5-(1-methylethenyl)-2-cyclohexen-1-one

Compound name:
Carvone

Found in:
Toothpaste, cumin, caraway and spearmint sweets



Carvone has 2 different isomers; there's a different spatial arrangement of their atoms. This difference results in different chemical properties.

(R)-stereoisomer

- In the "R" isomer when the H atom is pointing back into the plane of the paper, with the "O" to the left as you see it.
- R-Carvone has a strong spearmint smell and is used for flavouring both mint sweets and toothpaste.
- Uses: mosquito repellent.

(S)-stereoisomer

- In the "S" isomer when the H atom is pointing back into the plane of the paper, the "O" atom is to the right as you see it.
- S-Carvone is present in cumin and caraway seeds and many spices used since roman times.
- Uses: prevents potatoes sprouting during storage.

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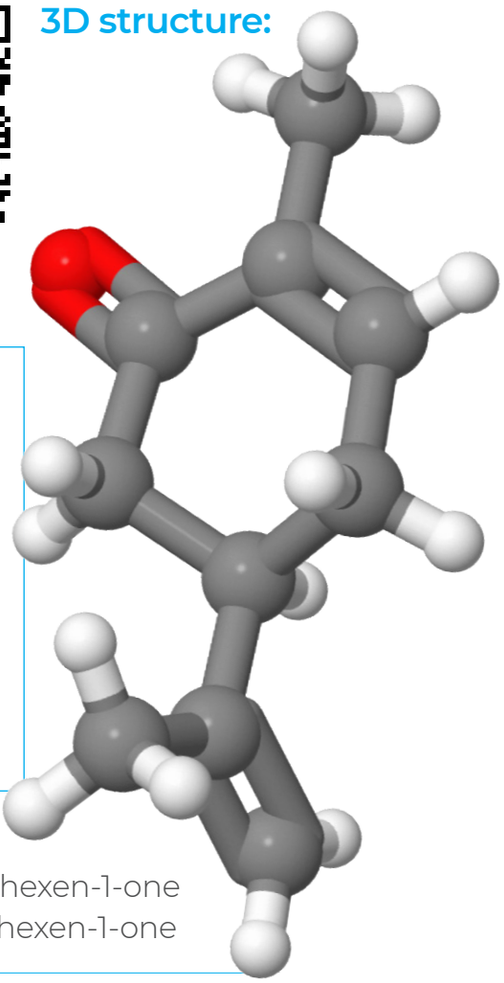
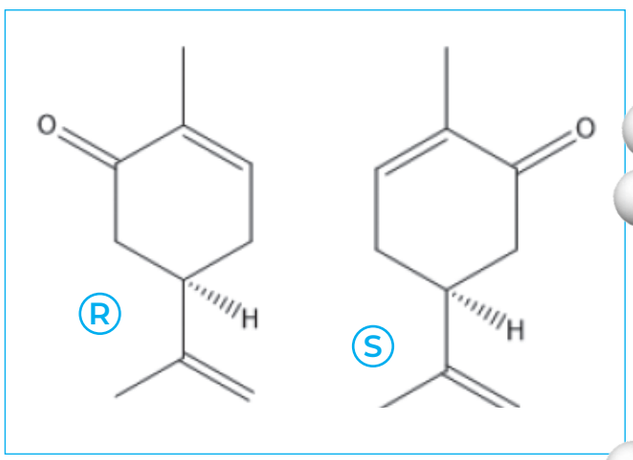
CSD Entry:
RERXIV (R isomer)
RERXOB (R/S mix)

3D structure:



2D diagrams:



Compound name:

(R)-2-Methyl-5-(1-methylethenyl)-2-cyclohexen-1-one
(S)-2-Methyl-5-(1-methylethenyl)-2-cyclohexen-1-one

Synonyms:

(R) = L-carvone (S) = D-carvone

Fun fact:

(R) isomer smells of spearmint
(S) isomer smells of caraway

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