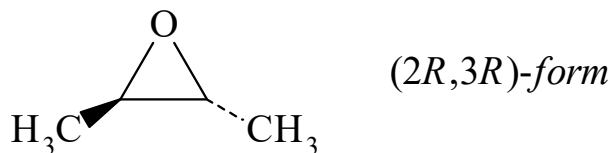




>>Entry Name: **2,3-Dimethyloxirane, 9CI**

Synonym(s): 2,3-Epoxybutane, 8CI. β -Butylene oxide. 2,3-Dimethylethylene oxide



CAS Registry Number: 3266-23-7

Extra CAS Registry Numbers(s): 21490-63-1 26249-20-7

Molecular Formula: C₄H₈O

Molecular Weight: 72.107

Accurate Mass: 72.057515

Percentage Composition: C 66.63%; H 11.18%; O 22.19%

Other Data: Both *cis*- and *trans*-isomers polym. to stereoregular linear polymers under organometallic or Lewis acid catalysis

Hazard & Toxicity: Mutagenic

>>Variant: (2*R*,3*R*)-form

Synonym(s): (+)-*trans*-form

CAS Registry Number: 1758-32-3

Molecular Formula: C₄H₈O

Molecular Weight: 72.107

Accurate Mass: 72.057515

Percentage Composition: C 66.63%; H 11.18%; O 22.19%

Physical Description: Oil

Boiling Point: Bp 52-55°

Optical Rotation: $[\alpha]_{\text{D}}^{21} +55.4$ (c, 1.9 in Et₂O)

>>Variant: (2*S*,3*S*)-form

Synonym(s): (–)-*trans*-form

CAS Registry Number: 63864-69-7

Molecular Formula: C₄H₈O

Molecular Weight: 72.107

Accurate Mass: 72.057515

Percentage Composition: C 66.63%; H 11.18%; O 22.19%

Physical Description: Oil

Boiling Point: Bp 52-53.5°

Optical Rotation: $[\alpha]_{\text{D}}^{21} -57.5$ (c, 1.2 in Et₂O). $[\alpha]_{\text{D}}^{25} -46.27$ (neat)

>>Variant: (2*RS*,3*RS*)-form

Synonym(s): (±)-*trans*-form

CAS Registry Number: 6189-41-9

Molecular Formula: C₄H₈O

Molecular Weight: 72.107

Accurate Mass: 72.057515

Percentage Composition: C 66.63%; H 11.18%; O 22.19%

Physical Description: Oil

Boiling Point: Bp 56-57° (52°, 54°)

>>Variant: (2*RS*,3*SR*)-form

Synonym(s): *cis*-form

CAS Registry Number: 1758-33-4

Molecular Formula: C₄H₈O

Molecular Weight: 72.107

Accurate Mass: 72.057515

Percentage Composition: C 66.63%; H 11.18%; O 22.19%

Physical Description: Oil

Boiling Point: Bp 60°

Hazard & Toxicity: Highly flammable, fl. p. –15°

Aldrich: 29404-7

Fluka: 41029

References: