



>>Entry Name: 2,4-Decadienal

ENTRY UNDER REVIEW

Synonym(s): FEMA 3135

CAS Registry Number: 2363-88-4

$\text{H}_3\text{C}(\text{CH}_2)_4\text{CH}=\text{CHCH}=\text{CHCHO}$

Molecular Formula: $\text{C}_{10}\text{H}_{16}\text{O}$

Molecular Weight: 152.236

Accurate Mass: 152.120115

Percentage Composition: C 78.90%; H 10.59%; O 10.51%

Physical Description: Oily liq. with grapefruit/orange-like taste on dilution

>>Variant: (*E,E*)-form

CAS Registry Number: 25152-84-5

Molecular Formula: $\text{C}_{10}\text{H}_{16}\text{O}$

Molecular Weight: 152.236

Accurate Mass: 152.120115

Percentage Composition: C 78.90%; H 10.59%; O 10.51%

Biological Source: Constit. of numerous plants and food sources

Use/Importance: Flavour component produced by oxidn. of linoleic acid

Boiling Point: $\text{Bp}_{0.05}$ 58-61°

Aldrich: 18051-3

Fluka: 30465

>>Derivative: Semicarbazone

Melting Point: Mp 181-182°

>>Derivative: 2,4-Dinitrophenylhydrazone

Melting Point: Mp 141-142°

>>Derivative: 4*R**,5*R**-Epoxide

Synonym(s): 3-(3-Pentylloxiranyl)-2-propenal, 9CI. 4,5-Epoxy-2-decenal

CAS Registry Number: 134454-31-2

Extra CAS Registry Numbers(s): 73528-44-6

Molecular Formula: $\text{C}_{10}\text{H}_{16}\text{O}_2$

Molecular Weight: 168.235

Accurate Mass: 168.11503

Percentage Composition: C 71.39%; H 9.59%; O 19.02%

Source/Synthesis: Lipid peroxidation prod.

Physical Description: Liq. with green hay-like/metallic odour

Other Data: Odour threshold 0.5 pg/L in air, 1.3 µg/kg in sunflower oil

>>Variant: (2*E*,4*Z*)-form

CAS Registry Number: 25152-83-4

Molecular Formula: $\text{C}_{10}\text{H}_{16}\text{O}$

Molecular Weight: 152.236

Accurate Mass: 152.120115

Percentage Composition: C 78.90%; H 10.59%; O 10.51%

Biological Source: Constit. of numerous plants and food sources

Boiling Point: $\text{Bp}_{0.05}$ 58-61°

References: