



>>Entry Name: 9-Oxo-2-decenoic acid, 9CI

ENTRY UNDER REVIEW

CAS Registry Number: 2575-01-1

H3CCO(CH2)5CH=CHCOOH

Molecular Formula: C₁₀H₁₆O₃

Molecular Weight: 184.235

Accurate Mass: 184.109945

Percentage Composition: C 65.19%; H 8.75%; O 26.05%

>>Variant: (*E*)-form

Synonym(s): Queen substance. Queen bee pheromone

CAS Registry Number: 334-20-3

Molecular Formula: C₁₀H₁₆O₃

Molecular Weight: 184.235

Accurate Mass: 184.109945

Percentage Composition: C 65.19%; H 8.75%; O 26.05%

Biological Source: Major component of queen substance of honey bee *Apis mellifera*, comprising approx. 70% of queen substance

Physical Description: Cryst. (MeOH aq. or Me₂CO)

Melting Point: Mp 54-55.5°

Boiling Point: Bp_{0.001} 37-39°

Solubility: BERDY SOL: Sol. MeOH, hexane; poorly sol. H₂O

UV: [neutral] λ_{max} 362 () (MeOH) (Berdy)

>>Derivative: 2,4-Dinitrophenylhydrazone

Melting Point: Mp 126-130°

>>Derivative: Semicarbazone

Physical Description: Cryst. (MeOH aq.)

Melting Point: Mp 165-168°

>>Derivative: Me ester

CAS Registry Number: 1189-64-6

Molecular Formula: C₁₁H₁₈O₃

Molecular Weight: 198.261

Accurate Mass: 198.125595

Percentage Composition: C 66.64%; H 9.15%; O 24.21%

Boiling Point: Bp_{0.6} 107.5-108°

>>Variant: (*Z*)-form

CAS Registry Number: 29282-32-4

Molecular Formula: C₁₀H₁₆O₃

Molecular Weight: 184.235

Accurate Mass: 184.109945

Percentage Composition: C 65.19%; H 8.75%; O 26.05%

Physical Description: Oil

Boiling Point: Bp_{0.2} 110-150°

References: