



>>Entry Name: 8-Nonenoic acid, 9CI

Synonym(s): 8-Nonylenic acid

CAS Registry Number: 31642-67-8

$\text{H}_2\text{C}=\text{CH}(\text{CH}_2)_6\text{COOH}$

Molecular Formula: $\text{C}_9\text{H}_{16}\text{O}_2$

Molecular Weight: 156.224

Accurate Mass: 156.11503

Percentage Composition: C 69.19%; H 10.32%; O 20.48%

Physical Description: Liq. with waxy odour

Melting Point: Mp 5° (Fp 10°)

Boiling Point: Bp 248-249°. Bp₁₅ 147°

>>Derivative: *p*-Toluidide

Physical Description: Cryst. (petrol)

Melting Point: Mp 68°

>>Derivative: Me ester

CAS Registry Number: 20731-23-1

Molecular Formula: $\text{C}_{10}\text{H}_{18}\text{O}_2$

Molecular Weight: 170.251

Accurate Mass: 170.13068

Percentage Composition: C 70.55%; H 10.66%; O 18.80%

Boiling Point: Bp₁₅ 110° (bath)

>>Derivative: Et ester

CAS Registry Number: 35194-39-9

Molecular Formula: $\text{C}_{11}\text{H}_{20}\text{O}_2$

Molecular Weight: 184.278

Accurate Mass: 184.14633

Percentage Composition: C 71.70%; H 10.94%; O 17.36%

Physical Description: Liq.

Boiling Point: Bp 226-228°. Bp₁₅ 114-116°

Solubility: Sol. EtOH, Et₂O, spar. sol. H₂O

>>Derivative: Chloride

CAS Registry Number: 102342-66-5

Molecular Formula: $\text{C}_9\text{H}_{15}\text{ClO}$

Molecular Weight: 174.67

Accurate Mass: 174.081142

Percentage Composition: C 61.89%; H 8.66%; Cl 20.30%; O 9.16%

Physical Description: Liq.

Boiling Point: Bp₃₀ 110°

>>Derivative: Nitrile

Synonym(s): 8-Nonenenitrile, 9CI. 8-Cyanooctene

CAS Registry Number: 5048-34-0

Molecular Formula: $\text{C}_9\text{H}_{15}\text{N}$

Molecular Weight: 137.224

Accurate Mass: 137.120449

Percentage Composition: C 78.78%; H 11.02%; N 10.21%

Physical Description: Liq.

References:

- Gaubert, P. *et al.*, *J.C.S.*, 1937, 1971, (*synth*)
Dias, J.R. *et al.*, *J.A.C.S.*, 1972, **94**, 473, (*ms*)
Ogibin, Yu.N. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1976, 2518, (*synth*)
Liu, S.-H., *J.O.C.*, 1977, **42**, 3209, (*synth*)
Giese, B. *et al.*, *Chem. Ber.*, 1984, **117**, 3160, (*ester, nitrile, synth, ir, pmr*)
Kiriara, M. *et al.*, *Synth. Commun.*, 1998, **28**, 1947-1956, (*synth, ir, pmr, cmr*)