>>**Entry Name: 2-Nonenal,** 9CI
ENTRY UNDER REVIEW
Synonym(s): FEMA 3213

CAS Registry Number: 2463-53-8
$H_3C(CH_2)_5CH=CHCHO$

Molecular Formula: $C_9H_{16}O$
Molecular Weight: 140.225
Accurate Mass: 140.120115
Percentage Composition: C 77.09%; H 11.50%; O 11.41%

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

CAS Registry Number: 18829-56-6

Molecular Formula: $C_9H_{16}O$
Molecular Weight: 140.225
Accurate Mass: 140.120115
Percentage Composition: C 77.09%; H 11.50%; O 11.41%
Biological Source: Widespread in nature, in beer, coffee, watermelon, cucumbers, redcurrants, palm oil, potatoes etc.
Use/Importance: Perfumery and flavouring ingredient
Physical Description: Liq.
Boiling Point: $Bp_{11.5}$ 88-90° (lit. gives a pressure range)

Aldrich: W32130-3

>>**Derivative:** Semicarbazone

CAS Registry Number: 16742-24-8
Physical Description: Small needles (MeOH)

>>**Derivative:** 2,4-Dinitrophenylhydrazone

CAS Registry Number: 18287-00-8
Physical Description: Orange-red needles (EtOH)
Melting Point: Mp 126°

>>**Variant:** (*Z*)-form

CAS Registry Number: 60784-31-8
Molecular Formula: $C_9H_{16}O$
Molecular Weight: 140.225
Accurate Mass: 140.120115
Percentage Composition: C 77.09%; H 11.50%; O 11.41%
Physical Description: No physical data publ.

>>**Derivative:** Semicarbazone

Physical Description: Cryst. (MeOH)
Melting Point: Mp 141°

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 473B, *(ir)*
Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 739A, *(nmr)*
Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 562A, *(ir)*
Gamboni, G. *et al.*, *Helv. Chim. Acta*, 1958, **41**, 1603, *(synth)*
Forss, D.A. *et al.*, *Aust. J. Chem.*, 1962, **15**, 163, *(synth, ir, uv)*
Wada, M. *et al.*, *Chem. Lett.*, 1977, 345, *(synth)*
Bestmann, H.J. *et al.*, *Tet. Lett.*, 1977, 121, *(synth, pmr)*
Ficini, J. *et al.*, *Tet. Lett.*, 1977, 3589, *(synth)*
Goodrich, B.S. *et al.*, *J. Chem. Ecol.*, 1978, **4**, 581, *(isol)*
Opdyke, D.L.J*., Food Chem. Toxicol.*, 1982, **20**, 775, *(rev, tox)*
Crombie, L. *et al.*, *J.C.S. Perkin 1*, 1991, 567, *(synth, ir, pmr)*
Kula, J. *et al.*, *J. Am. Oil Chem. Soc.*, 1993, **70**, 643, *(synth)*
Fortes, C.C. *et al.*, *Synth. Commun.*, 1997, **27**, 3917-3941, *(synth, ir, pmr, cmr, ms)*