



>>Entry Name: 15-Hydroxypentadecanoic acid, 9CI
ENTRY UNDER REVIEW

CAS Registry Number: 4617-33-8

HOCH₂(CH₂)₁₃COOH

Molecular Formula: C₁₅H₃₀O₃

Molecular Weight: 258.4

Accurate Mass: 258.219495

Percentage Composition: C 69.72%; H 11.70%; O 18.58%

Use/Importance: Use in polyester formulations

Melting Point: Mp 82-84°

Sigma: H4527

>>Derivative: Ac

Molecular Formula: C₁₇H₃₂O₄

Molecular Weight: 300.437

Accurate Mass: 300.23006

Percentage Composition: C 67.96%; H 10.74%; O 21.30%

Melting Point: Mp 59°

>>Derivative: Lactone

Synonym(s): Oxacyclohexadecan-2-one, 9CI, 8CI. Pentadecanolide. **Exaltolide**. Muskalactone. FEMA 2840

CAS Registry Number: 106-02-5

Molecular Formula: C₁₅H₂₈O₂

Molecular Weight: 240.385

Accurate Mass: 240.20893

Percentage Composition: C 74.95%; H 11.74%; O 13.31%

Biological Source: Constit. of angelica root oil (*Angelica archangelica*)

Use/Importance: Important musk odorant

Melting Point: Mp 34°. Mp 52-53°

Boiling Point: Bp₁₅ 176°

Aldrich: W28400-9

Fluka: 76530

Sigma: P5909

References:

- Dhekne, V.V. *et al.*, *J.C.S.*, 1962, 2348, (*lactone*)
Klouwen, M.H. *et al.*, *Parfuem. Kosmet.*, 1962, **43**, 35, (*rev*)
Mathur, H.H. *et al.*, *J.C.S.*, 1963, 3505
McCrae, W., *Tetrahedron*, 1964, **20**, 1773, (*lactone*)
McFadden, W.H. *et al.*, *Anal. Chem.*, 1965, **37**, 89, (*ms, lactone*)
Nozaki, H. *et al.*, *Can. J. Chem.*, 1968, **46**, 3767, (*synth*)
Scott, L.T. *et al.*, *Synthesis*, 1976, 738, (*lactone*)
Narasaka, K. *et al.*, *Chem. Lett.*, 1978, 885, (*lactone*)
Sato, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1981, **54**, 945, (*synth*)
Subramanian, G.B.V. *et al.*, *Chem. Ind. (London)*, 1985, 379, (*synth*)
Milenkov, B. *et al.*, *Helv. Chim. Acta*, 1987, **70**, 760, (*synth*)
Stanchev, S. *et al.*, *Tet. Lett.*, 1993, **34**, 6107, (*lactone, bibl*)
Fenaroli's Handbook of Flavor Ingredients, 3rd edn., (ed. Burdock, G.A.), CRC Press, 1995, **2**, 636, (*lactone*)
Jun, L. *et al.*, *Synth. Commun.*, 1995, **25**, 3457, (*synth, ir, pmr*)
Encyclopedia of Food and Color Additives, (ed. Burdock, G.A.), CRC Press, 1997, 2113-2114, (*lactone*)