



>>Entry Name: 4-Decenoic acid

ENTRY UNDER REVIEW

CAS Registry Number: 26303-90-2

Related CAS Registry Numbers(s): 57602-94-5

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

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%

Source/Synthesis: Occurs in hops and beer

Use/Importance: Comly. available flavour ingredient

>>Variant: (*E*)-form

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%

Physical Description: Liq. with fatty odour

Boiling Point: Bp_{13} 145-146°

>>Variant: (*Z*)-form

Synonym(s): Obtusilic acid

CAS Registry Number: 505-90-8

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%

Biological Source: Constit. of seed oil of *Lindera obtusiloba* and other members of the Lauraceae. Not found in any other family

Physical Description: Liq. with fatty/green odour

Boiling Point: Bp_{13} 148-150°

>>Derivative: 4-Bromophenacyl ester

Melting Point: Mp 43.3°

References:

- Komori, S. *et al.*, *Bull. Chem. Soc. Jpn.*, 1937, **12**, 226; 433, (*isol*)
Iwakiri, M., *Yakugaku Zasshi*, 1951, **78**, 1460; *CA*, **53**, 1633, (*synth, config*)
Hopkins, C.Y. *et al.*, *Lipids*, 1966, **1**, 118, (*isol*)
Bus, J. *et al.*, *Chem. Phys. Lipids*, 1976, **17**, 501, (*cmr*)
Iwakiri, M., *CA*, 1982, **97**, 20619q, (*rev*)
Fujisawa, T. *et al.*, *Tet. Lett.*, 1982, 3583, (*synth*)
Kawashima, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1988, **61**, 3255, (*synth*)
Shirakawa, T. *et al.*, *Dev. Food Sci.*, 1988, **18**, 915, (*occur, bibl*)