



>>Entry Name: 10-Undecenoic acid, 9CI

ENTRY UNDER REVIEW

Synonym(s): Undecylenic acid, USAN. FEMA 3247

CAS Registry Number: 112-38-9

$\text{H}_2\text{C}=\text{CH}(\text{CH}_2)_8\text{COOH}$

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%

Biological Source: Metab. of *Rhodotorula glutinis* var. *lusitanica*. Also from leaf oils of asunaro (*Thujopsis dolabrata*) and Chinese juniper (*Juniperus chinensis*). Formed on pyrol. of ricinoleic acid

Use/Importance: Antifungal agent. Simple esters are perfumery and flavour ingredients

Melting Point: Mp 24.5°

Boiling Point: Bp 275°. Bp₁₅ 165°

Solubility: Insol. H_2O ; misc. EtOH, CHCl_3 , Et_2O , C_6H_6

Refractive Index: n_D^{25} 1.4480

Calculated Log P Data: Log P 4.04 (calc)

Other Data: Component of Cruex, Desenex, Fulvidex and Ting. Esters can be polym. under transition-metal initiation

Hazard & Toxicity: Severe skin irritant. LD₅₀ (rat, orl) 2500 mg/kg

Aldrich: 12467-2

Fluka: 94192

Sigma: U1754

>>Derivative: Na salt

CAS Registry Number: 3398-33-2

Use/Importance: Surfactant. Forms oligomers on γ or uv irradiation

Physical Description: Solid

Sigma: U3252

>>Derivative: Zn salt (2:1)

Synonym(s): Zinc undecylenate, USAN

CAS Registry Number: 557-08-4

Use/Importance: Used topically to treat dermatophytic infections

Melting Point: Mp 116-121°

Aldrich: 32958-4

Sigma: U0625

>>Derivative: Me ester

CAS Registry Number: 111-81-9

Molecular Formula: $\text{C}_{12}\text{H}_{22}\text{O}_2$

Molecular Weight: 198.305

Accurate Mass: 198.16198

Percentage Composition: C 72.68%; H 11.18%; O 16.14%

Melting Point: Fp -27.5°

Boiling Point: Bp 248°. Bp₁₀ 124°

Rare Chemicals Library: S41869-2

Sigma: U8502