



>>Entry Name: Dodecanoic acid, 9CI

ENTRY UNDER REVIEW

Synonym(s): Lauric acid. Laurostearic acid. FEMA 2614

CAS Registry Number: 143-07-7

Related CAS Registry Numbers(s): 2224-49-9 37811-72-6

Type of Compound Code(s): WC3700 VA0300 WA2000 WC5100 WC1600

$\text{H}_3\text{C}(\text{CH}_2)_{10}\text{COOH}$

Molecular Formula: $\text{C}_{12}\text{H}_{24}\text{O}_2$

Molecular Weight: 200.32

Accurate Mass: 200.17763

Percentage Composition: C 71.95%; H 12.08%; O 15.97%

General Statement: For salts see Dodecanoic acid salts [GOS71-N](#)

Biological Source: Occurs as glyceride in coconut oil and palm kernel oil. Widespread in plants, esp. in the Palmae and Lauraceae

Use/Importance: Simple esters are flavour ingredients

Physical Description: Cryst. (EtOH)

Melting Point: Mp 44°

Boiling Point: Bp₁₀₀ 225°. Bp_{0.65} 141-142° (lit. gives a pressure range)

Density: d₂₀²⁰ 0.883

pKa Value: pK_a 5.3 (20°)

Hazard & Toxicity: LD₅₀ (rat, orl) 12000 mg/kg

Aldrich: 15378-8

Fluka: 61620

Sigma: L4250

>>Derivative: Me ester

Synonym(s): Methyl dodecanoate. Methyl laurate. FEMA 2715

CAS Registry Number: 111-82-0

Type of Compound Code(s): WI3200 WI4000 WI6000 WE2000 VA0350

Molecular Formula: $\text{C}_{13}\text{H}_{26}\text{O}_2$

Molecular Weight: 214.347

Accurate Mass: 214.19328

Percentage Composition: C 72.85%; H 12.23%; O 14.93%

Use/Importance: Flavouring agent

Melting Point: Mp 5°

Boiling Point: Bp 261-262°. Bp₁₅ 141°

Density: d₄²⁰ 0.87

Refractive Index: n_D²⁰ 1.4320

Aldrich: 23459-1

Fluka: 61700

Sigma: L7272

Supelco: R42-0125

>>Derivative: Et ester

Synonym(s): Ethyl dodecanoate. Ethyl laurate. FEMA 2441

CAS Registry Number: 106-33-2

Type of Compound Code(s): WI4000 WE2000 WI3200 WI3500 VA0370

Molecular Formula: $\text{C}_{14}\text{H}_{28}\text{O}_2$

Molecular Weight: 228.374

Accurate Mass: 228.20893

Percentage Composition: C 73.63%; H 12.36%; O 14.01%

Biological Source: Present in various fruits

Use/Importance: Flavouring agent

Physical Description: Liq. with floral, fruity odour

Boiling Point: Bp₂₅ 163°

Aldrich: W24410-4

Fluka: 61630

Rare Chemicals Library: S83888-8

Sigma: L4625

Supelco: N47-2441