



>>Entry Name: Hexadecanoic acid

ENTRY UNDER REVIEW

Synonym(s): Palmitic acid, USAN. Aethalic acid. FEMA 2832

CAS Registry Number: 57-10-3

Related CAS Registry Numbers(s): 142-91-6 408-35-5 542-42-7 2624-31-9 4991-47-3

$\text{H}_3\text{C}(\text{CH}_2)_{14}\text{COOH}$

Molecular Formula: $\text{C}_{16}\text{H}_{32}\text{O}_2$

Molecular Weight: 256.428

Accurate Mass: 256.24023

Percentage Composition: C 74.94%; H 12.58%; O 12.48%

Biological Source: Occurs in the form of esters (glycerides) in oils and fats of vegetable and animal origin. Usually obt. from palm oil. Widely distributed in plants

Use/Importance: Used in detn. of water hardness

Biological Use/Importance: Active ingredient of LevovistTM, used in echoenhancement in sonographic Doppler B-mode imaging. Ultrasound contrast medium

Physical Description: Cryst.

Melting Point: Mp 63-64°

Boiling Point: Bp 390°. Bp₁₀₀ 268.5°. Bp₁₅ 215°

Hazard & Toxicity: Skin irritant. LD₅₀ (mus, ivn) 57 mg/kg

Aldrich: P5-1

Fluka: 76122

Sigma: P0670

>>Derivative: Me ester

Synonym(s): Methyl hexadecanoate. Methyl palmitate

CAS Registry Number: 112-39-0

Molecular Formula: $\text{C}_{17}\text{H}_{34}\text{O}_2$

Molecular Weight: 270.454

Accurate Mass: 270.25588

Percentage Composition: C 75.50%; H 12.67%; O 11.83%

Biological Source: Constit. of trunkwood of *Machaerium kuhlmanii*

Physical Description: Cryst. (EtOH)

Melting Point: Mp 30.5°

Boiling Point: Bp₁₄₇ 415-418°. Bp₁₅ 196°. Bp₂ 148°

Aldrich: W50953-1

Fluka: 76160

Rare Chemicals Library: S55756-0

Sigma: P5177

>>Derivative: Et ester

Synonym(s): Ethyl hexadecanoate. Ethyl palmitate. FEMA 2451

CAS Registry Number: 628-97-7

Molecular Formula: $\text{C}_{18}\text{H}_{36}\text{O}_2$

Molecular Weight: 284.481

Accurate Mass: 284.27153

Percentage Composition: C 76.00%; H 12.75%; O 11.25%

Physical Description: Cryst. (EtOH or petrol)

Melting Point: Mp 19.3°. Mp 24° (dimorph.)

Boiling Point: Bp 303°. Bp₁₀ 191°

Aldrich: 28691-5

Fluka: 76132

Sigma: P9009