



>>Entry Name: Eicosanoic acid

Synonym(s): Arachidic acid. Icosanoic acid. Arachic acid

CAS Registry Number: 506-30-9

Related CAS Registry Numbers(s): 14923-81-0

Type of Compound Code(s): VA0300

$\text{H}_3\text{C}(\text{CH}_2)_{18}\text{COOH}$

Molecular Formula: $\text{C}_{20}\text{H}_{40}\text{O}_2$

Molecular Weight: 312.535

Accurate Mass: 312.30283

Percentage Composition: C 76.86%; H 12.90%; O 10.24%

Biological Source: Constit. of arachis (*Arachis hypogaea*) (ground-nut) oil glycerides. Widely distributed in other seed oils

Physical Description: Cryst. (EtOH)

Melting Point: Mp 77°

Boiling Point: Bp₁ 203-205°

Solubility: BERDY SOL: Sol. CHCl_3 , hexane; poorly sol. H_2O

Aldrich: E23-1

Fluka: 10933

Sigma: A3631

>>Derivative: Me ester

CAS Registry Number: 1120-28-1

Molecular Formula: $\text{C}_{21}\text{H}_{42}\text{O}_2$

Molecular Weight: 326.562

Accurate Mass: 326.31848

Percentage Composition: C 77.24%; H 12.96%; O 9.80%

Melting Point: Mp 45.8-46.3°

Boiling Point: Bp₁₀ 215-216°. Bp₂ 188°

Aldrich: 25222-0

Fluka: 10941

Sigma: A3881

>>Derivative: Et ester

CAS Registry Number: 18281-05-5

Type of Compound Code(s): VA0370

Molecular Formula: $\text{C}_{22}\text{H}_{44}\text{O}_2$

Molecular Weight: 340.588

Accurate Mass: 340.33413

Percentage Composition: C 77.58%; H 13.02%; O 9.40%

Biological Source: Constit. of *Cassia javanica* leaves

Melting Point: Mp 41.4-42°

Boiling Point: Bp₁₀₀ 295-297°. Bp₂ 186-187°

Sigma: A9010

>>Derivative: Amide

Molecular Formula: $\text{C}_{20}\text{H}_{41}\text{NO}$

Molecular Weight: 311.55

Accurate Mass: 311.318814

Percentage Composition: C 77.10%; H 13.26%; N 4.50%; O 5.14%

Melting Point: Mp 109°

>>Derivative: Nitrile

Molecular Formula: $\text{C}_{20}\text{H}_{39}\text{N}$

Molecular Weight: 293.535

Accurate Mass: 293.308249

Percentage Composition: C 81.84%; H 13.39%; N 4.77%

Melting Point: Mp 49.5°