



>>Entry Name: 5,8,11,14-Eicosatetraenoic acid

ENTRY UNDER REVIEW

Synonym(s): 5,8,11,14-Icosatetraenoic acid

CAS Registry Number: 7771-44-0

Related CAS Registry Numbers(s): 6610-25-9 77297-91-7

Extra CAS Registry Numbers(s): 27400-91-5

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

Molecular Formula: $\text{C}_{20}\text{H}_{32}\text{O}_2$

Molecular Weight: 304.472

Accurate Mass: 304.24023

Percentage Composition: C 78.90%; H 10.59%; O 10.51%

>>Variant: (*all-Z*)-form

Synonym(s): Arachidonic acid

CAS Registry Number: 506-32-1

Extra CAS Registry Numbers(s): 31152-45-1

Type of Compound Code(s): WA2000 WI8000 VA0600

Molecular Formula: $\text{C}_{20}\text{H}_{32}\text{O}_2$

Molecular Weight: 304.472

Accurate Mass: 304.24023

Percentage Composition: C 78.90%; H 10.59%; O 10.51%

Biological Source: Constit. of many animal phospholipids, also of some ferns and mosses

Use/Importance: Essential fatty acid. Precursor of Prostaglandin G_2 [CQW08-P](#) series prostaglandins

Melting Point: Mp -49.5°

Boiling Point: Bp₁ 163°

Hazard & Toxicity: Potentially explosive. LD₅₀ (mus, ivn) 33 mg/kg

Aldrich: 23384-6

Fluka: 10931

Sigma: A6382

Supelco: R42-0800

>>Derivative: Me ester

CAS Registry Number: 2566-89-4

Molecular Formula: $\text{C}_{21}\text{H}_{34}\text{O}_2$

Molecular Weight: 318.498

Accurate Mass: 318.25588

Percentage Composition: C 79.19%; H 10.76%; O 10.05%

Boiling Point: Bp_{0.7} $194-196^\circ$

Fluka: 10936

Sigma: A4175

Supelco: R30-3890

>>Derivative: Et ester

CAS Registry Number: 1808-26-0

Molecular Formula: $\text{C}_{22}\text{H}_{36}\text{O}_2$

Molecular Weight: 332.525

Accurate Mass: 332.27153

Percentage Composition: C 79.47%; H 10.91%; O 9.62%

Physical Description: Liq.

Boiling Point: Bp_{0.04} $121-122^\circ$

Density: d^{20}_4 0.8974

Refractive Index: n^{20}_D 1.4719

Sigma: A0523

Other: PB E05160