



Molecular Formula: C₂₄H₂₄O₅

Molecular Weight: 392.451

Accurate Mass: 392.162375

Percentage Composition: C 73.45%; H 6.16%; O 20.38%

Biological Source: Reported prod. by a *Streptomyces* sp. (see note above)

Biological Use/Importance: Active against gram-positive and -negative bacteria, yeasts and fungi

Melting Point: Mp 320°

Solubility: Sol. H₂O, MeOH; poorly sol. CHCl₃, hexane

Other Data: Struct. not fully assigned

>>**Derivative:** Dioctyl ester

Synonym(s): Dioctyl phthalate

CAS Registry Number: 117-84-0

Molecular Formula: C₂₄H₃₈O₄

Molecular Weight: 390.562

Accurate Mass: 390.27701

Percentage Composition: C 73.81%; H 9.81%; O 16.39%

Biological Source: Reported as a nat. prod. from the brown alga *Sargassum wightii* and various plant spp.

Use/Importance: Plasticiser

Physical Description: Liq.

Melting Point: Mp -25°

Boiling Point: Bp₁ 185°. Bp_{0.1} 165°

Density: d₂₀²⁰ 0.975

Refractive Index: n_D²⁵ 1.4848

Other Data: Almost certainly a contaminant

Fluka: 80153

Supelco: R43-0690

>>**Derivative:** Diisooctyl ester

Synonym(s): Diisooctyl phthalate. DIOP

CAS Registry Number: 27554-26-3

Molecular Formula: C₂₄H₃₈O₄

Molecular Weight: 390.562

Accurate Mass: 390.27701

Percentage Composition: C 73.81%; H 9.81%; O 16.39%

Use/Importance: Plasticiser for PVC

Physical Description: Liq.

Melting Point: Mp -50°

Boiling Point: Bp 37°

Solubility: Insol. H₂O

Density: d₂₀²⁰ 0.986

Other Data: Mixt. of isomers obtained from phthalic anhydride and the mixed octyl esters made by the oxo process. See also the bis(2-ethylhexyl) component below

Aldrich: 37665-5

>>**Derivative:** Dinonyl ester

Synonym(s): Dinonyl phthalate. DNP

CAS Registry Number: 84-76-4

Molecular Formula: C₂₆H₄₂O₄

Molecular Weight: 418.615

Accurate Mass: 418.30831

Percentage Composition: C 74.60%; H 10.11%; O 15.29%

Use/Importance: Plasticiser

Physical Description: Oil

Boiling Point: Bp₁ 205-220°

Solubility: Insol. H₂O

Density: d₂₅²⁵ 0.979

Refractive Index: n_D²⁰ 1.4871

Hazard & Toxicity: Fl. p. 141°