



Accurate Mass: 378.167855
Percentage Composition: C 63.48%; H 6.92%; O 29.60%
Biological Source: Isol. from *Cnicus benedictus* and *Centaurea squarrosa*
Use/Importance: Antibiotic, inhibitor of *Trichomonas*
Physical Description: Cryst.
Melting Point: Mp 143°
Optical Rotation: $[\alpha]_D^{20} +158$ (c, 2.3 in EtOH)
UV: [neutral] $\lambda_{\max}$ 220 (ϵ 21878) (MeOH) (Berdy)
Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ipr) 25 mg/kg

>>Derivative: 8-Tigloyl

Molecular Formula: C₂₀H₂₆O₅
Molecular Weight: 346.422
Accurate Mass: 346.178025
Percentage Composition: C 69.34%; H 7.56%; O 23.09%
Biological Source: Constit. of *Onopordon laconicum*
Physical Description: Oil
Optical Rotation: $[\alpha]_D^{22} +123.4$ (c, 0.33 in CHCl₃)

>>Derivative: 8-(4-Hydroxy-2-methyl-2-butenoyl) (Z-)

CAS Registry Number: 97605-42-0

Molecular Formula: C₂₀H₂₆O₆
Molecular Weight: 362.422
Accurate Mass: 362.17294
Percentage Composition: C 66.28%; H 7.23%; O 26.49%
Biological Source: Constit. of *Centaurea glomerata*
Physical Description: Oil
Optical Rotation: $[\alpha]_D^{24} +126$ (c, 0.9 in CHCl₃)

>>Derivative: 8-(4-Hydroxy-3-methyl-2E-butenoyl)

Molecular Formula: C₂₀H₂₆O₆
Molecular Weight: 362.422
Accurate Mass: 362.17294
Percentage Composition: C 66.28%; H 7.23%; O 26.49%
Biological Source: Constit. of *Onopordon myriacanthum*
Physical Description: Oil
Optical Rotation: $[\alpha]_D^{23} +133.5$ (c, 0.14 in CHCl₃)

>>Derivative: 8-(2-Hydroxymethyl-2-butenoyl) (E-)

CAS Registry Number: 97605-43-1

Molecular Formula: C₂₀H₂₆O₆
Molecular Weight: 362.422
Accurate Mass: 362.17294
Percentage Composition: C 66.28%; H 7.23%; O 26.49%
Biological Source: Constit. of *Centaurea glomerata*

>>Derivative: 8-(4-Hydroxy-2-hydroxymethyl-2-butenoyl)
Synonym(s): Eupatoriopicrin

CAS Registry Number: 6856-01-5

Molecular Formula: C₂₀H₂₆O₇
Molecular Weight: 378.421
Accurate Mass: 378.167855
Percentage Composition: C 63.48%; H 6.92%; O 29.60%
Biological Source: Constit. of *Eupatorium cannabinum*
Physical Description: Cryst. (EtOH)
Melting Point: Mp 157-161°