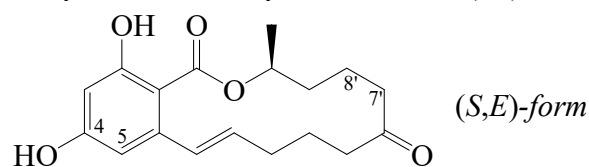




>>Entry Name: Zearalenone

ENTRY UNDER REVIEW

Synonym(s): 3,4,5,6,9,10-Hexahydro-14,16-dihydroxy-3-methyl-1*H*-2-benzoxacyclotetradecin-1,7(8*H*)-dione, 9Cl. Mycotoxin F2. Toxin F2



Related CAS Registry Numbers(s): 5975-78-0 42011-78-9 54933-67-4

Molecular Formula: C₁₈H₂₂O₅

Molecular Weight: 318.369

Accurate Mass: 318.146725

Percentage Composition: C 67.91%; H 6.96%; O 25.13%

Solubility: BERDY SOL: Sol. MeOH, Et₂O, MeCN; fairly sol. hexane; poorly sol. H₂O

UV: [neutral] λ_{max} 236 (ε 29700); 274 (ε 13909); 316 (ε 6020) (MeOH) (Berdy)

>>Variant: (S,E)-form

CAS Registry Number: 17924-92-4

Molecular Formula: C₁₈H₂₂O₅

Molecular Weight: 318.369

Accurate Mass: 318.146725

Percentage Composition: C 67.91%; H 6.96%; O 25.13%

Biological Source: Fungal metab. of *Fusarium* spp. and of *Gibberella zeae*

Biological Use/Importance: Has weak estrogenic activity and causes physiol. changes when ingested by animals as foodstuffs contaminant. Anabolic and uterotrophic

Melting Point: Mp 164-165° (157-159°)

Optical Rotation: [α]_D -190 (CHCl₃)

UV: [neutral] λ_{max} 236 (ε 29700); 274 (ε 13900); 316 (ε 6000) (EtOH)

Hazard & Toxicity: Severe skin irritant. Exp. neoplastic agent and teratogen. Exp. reprod. effect

Aldrich: 28745-8

Sigma: Z2125

Supelco: R47-4660

>>Derivative: 4-Sulfate

Synonym(s): Zearalenone 4-sulfate

CAS Registry Number: 132505-04-5

Molecular Formula: C₁₈H₂₂O₈S

Molecular Weight: 398.433

Accurate Mass: 398.10354

Percentage Composition: C 54.26%; H 5.57%; O 32.12%; S 8.05%

Biological Source: Prod. by *Fusarium graminearum* grown on rice

Biological Use/Importance: Mycotoxin; oestrogenic agent

Physical Description: Yellow powder

Solubility: BERDY SOL: Sol. H₂O

UV: [neutral] λ_{max} 228 (); 260 (); 300 () (MeOH) [neutral] λ_{max} 228 (); 260 (); 300 () (MeOH) (Berdy)

>>Derivative: 5-Formyl

Synonym(s): 5-Formylzearalenone

CAS Registry Number: 41432-76-2

Molecular Formula: C₁₉H₂₂O₆

Molecular Weight: 346.379

Accurate Mass: 346.14164

Percentage Composition: C 65.88%; H 6.40%; O 27.71%

Biological Source: Metab. of *Gibberella zeae*

Physical Description: Platelets

Melting Point: Mp 188-190°

Optical Rotation: [α]_D²⁴ -42 (CHCl₃)