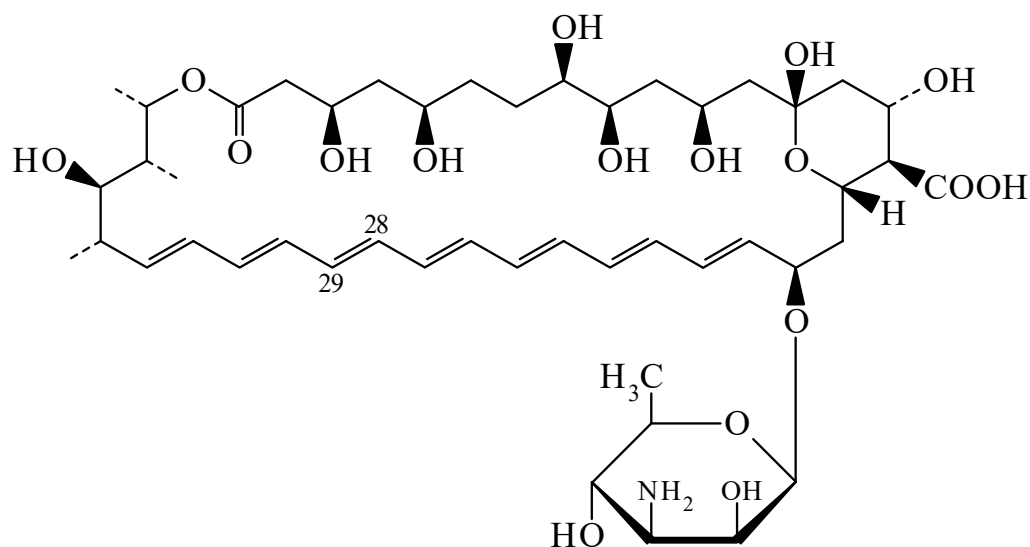




>>Entry Name: Amphotericin B, 9CI, 8CI, INN, USAN

Synonym(s): Amphotericin, BAN. Abeicet. Amfostet. Ampho-Moronal. Amphozone. Anfostat. Fungizone. Many other names



CAS Registry Number: 1397-89-3

Related CAS Registry Numbers(s): 35375-29-2 69234-88-4

Molecular Formula: C<sub>47</sub>H<sub>73</sub>NO<sub>17</sub>

Molecular Weight: 924.09

Accurate Mass: 923.487854

Percentage Composition: C 61.09%; H 7.96%; N 1.52%; O 29.43%

General Statement: Polyene antibiotic

Biological Source: Produced by *Streptomyces nodosus*

Biological Use/Importance: Antifungal agent. Used in the treatment of candidiasis. Prolongs survival time of scrapie-infected rodents

Physical Description: Deep yellow prisms (DMF)

Development Status: Approved for clinical use in the Netherlands and Belgium (1999)

Melting Point: Mp 170 dec.°

Optical Rotation:  $[\alpha]_D^{24} +333$  (DMF)

Solubility: Insol. H<sub>2</sub>O; BERDY SOL: Sol. DMSO, Me<sub>2</sub>CO, DMF; fairly sol. MeOH-HCl, butanol-H<sub>2</sub>O, AcOH, Py, MeOH; poorly sol. EtOH, H<sub>2</sub>O, butanol, hexane

Calculated Log P Data: Log P -5.89 (uncertain value) (calc)

UV: [neutral]  $\lambda_{\max}$  225 ( $\epsilon$  22400); 345 ( $\epsilon$  37900); 363 ( $\epsilon$  80800); 382 ( $\epsilon$  134000); 405 ( $\epsilon$  150000) (MeOH) (Derep) [neutral]  $\lambda_{\max}$  344 (E1%/1cm 412); 346 (E1%/1cm 420); 361 (E1%/1cm 912); 362 (E1%/1cm 990); 381 (E1%/1cm 1542); 382 (E1%/1cm 1710); 405 (E1%/1cm 1725); 407 (E1%/1cm 1900) (MeOH) (Berdy)

Other Data: Contains unusual D-rhamnose residue

**Hazard & Toxicity:** Adverse systemic effects reported when used therapeutically incl. gastrointestinal disturbances, cardiotoxic and nephrotoxic effects. LD<sub>50</sub> (mus, ipr) approx. 28 mg/kg. LD<sub>50</sub> (mus, ivn) 1.2 mg/kg. Exp. (male) reprod. effects ; BERDY HAZD : LD<sub>50</sub> (mus, ivn) 25 mg/kg , LD<sub>50</sub> (mus, ipr) 280 mg/kg

Fluka: 10042

Sigma: A6804

>>Derivative: Meglumine salt (1:1)

Synonym(s): Amphoglucamine

CAS Registry Number: 58722-78-4

>>Derivative: Me ester

CAS Registry Number: 36148-89-7

Molecular Formula: C<sub>48</sub>H<sub>75</sub>NO<sub>17</sub>

Molecular Weight: 938.117

Accurate Mass: 937.503504

Percentage Composition: C 61.46%; H 8.06%; N 1.49%; O 28.99%

Physical Description: Yellow amorph. solid

Optical Rotation:  $[\alpha]_D^{20} +392$  (c, 0.33 in DMF)

>>Derivative: N,N,N-Tri-Me, Me ester, methyl sulfate

Synonym(s): Methamphocin

CAS Registry Number: 73280-71-4

Molecular Formula: C<sub>52</sub>H<sub>85</sub>NO<sub>21</sub>S

Molecular Weight: 1092.304

Accurate Mass: 1091.533484

Percentage Composition: C 57.18%; H 7.84%; N 1.28%; O 30.76%; S 2.94%

Use/Importance: Water-sol. deriv. of Amphotericin B