


Specification

**Amphotericin B *BioChemica***

**A1907**

<b>Physical Description:</b>	Solid
<b>Product Code:</b>	A1907
<b>Product Name:</b>	Amphotericin B <i>BioChemica</i>
<b>Specifications:</b>	Activity: min. 750 I.U./mg Solubility: clear, orange (10 %, DMF/1 M HCl 3 : 1) Sulfated ash: max. 3 % UV spectrum: passes test Loss on drying (60°C; 0.7 kPa): max. 5 % Amphotericin A: max. 15 %
<b>Hazard pictograms</b>	
<b>WGK:</b>	3
<b>Storage:</b>	2 - 8°C protected from light
<b>Signal Word:</b>	Attention
<b>GHS Symbols:</b>	GHS07
<b>H Phrases:</b>	H315 H319 H335
<b>P Phrases:</b>	P280 P305+P351+P338
<b>Origin:</b>	from <i>Streptomyces ssp.</i>
<b>Molecular Formula:</b>	C <sub>47</sub> H <sub>73</sub> NO <sub>17</sub>

**AppliChem GmbH**

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 CEO Joan Roget • Commerzbank Darmstadt • Bank 508 800 50 • Account 0186989900 IBAN DE24 5088 0050 0186 9899 00 • Swiftcode DRESDEFF508 • Finanzamt Darmstadt 07 228 16476 • Register court Darmstadt HRB Nr. 7340

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### Amphotericin B *BioChemica*

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<b>M:</b>	924.10 g/mol
<b>CAS:</b>	1397-89-3
<b>EINECS:</b>	215-742-2
<b>CS:</b>	29419000
<b>Comment</b>  <p>The antibiotic amphotericin B was isolated from <i>Streptomyces nodosus</i>. It belongs to the macrocyclic lactones and its action is fungistatic. Amphotericin B binds to sterols (e. g. cholesterol, cholestanol) with planar structure and disturbs the membrane permeability. Ions, like <math>K^{+}</math>, <math>Na^{+}</math> and <math>H^{+}</math> or other low molecular weight substances (e. g. amino acids, sugars, nucleotides) may cross the membrane (1). The cytotoxic concentration is approx. 30 µg/ml and the recommended working concentration at 2.5 µg/ml. <b>Stability:</b> Amphotericin B is of low solubility in water at pH values from 6 - 7. At the pH 2 and 11, respectively, only 100 µg/ml can be dissolved. In DMSO, it is soluble at concentrations of 30 - 40 mg/ml, in propylene glycol 2 - 5 mg/ml, in acidified dimethyl formamide and acidic or alkaline methanol 60 - 80 mg/ml and 2 - 5 mg/ml, respectively. Store the dry substance protected from light and under argon. Under these conditions, the antibiotic is stable for more than 6 months. Aqueous solutions with a pH value of 5 - 7 are stable for 40 - 90 days, if stored at +4°C. Perform longer experiments protected from light, where possible, even if exposure to light for up to 8 hours has no negative influence. Amphotericin B is heat labile, but at 37°C it is stable for 3 days, nevertheless.</p>	
<b>Bibliography</b>  <p>(1) Holz, R.W. (1979) <i>Antibiotics V</i>, p. 313 (F.E.Hahn ed.) Springer-Verlag Berlin, Heidelberg, New York. Polyene antibiotics\; Nystatin, Amphotericin B and Filipin. (2) Medoff, G. et al. (1983) <i>Ann. Rev. Pharmacol. Toxicol.</i> <b>23</b>, 303-330 Antifungal agents useful in therapy of systemic fungal infections. (3) Charak, B.S. et al. (1994) <i>Br. J. Haematol.</i> <b>88</b>, 693-698 Protecting effect of G-CSF against Amphotericin B-induced Myelosuppression <i>in vitro</i>.</p>	

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