


Specification

Ampicillin Sodium Salt *BioChemica*

A0839

Physical Description:	Solid
Product Code:	A0839
Product Name:	Ampicillin Sodium Salt <i>BioChemica</i>
Specifications:	<p>Assay (HPLC): 91.0 - 102.0 %</p> <p>α20°C/D; 0.2 %, H₂O: +258° - +287°</p> <p>pH (10 %; H₂O; 20°C): 8.0 - 10.0</p> <p>Heavy metals: max. 0.002 %</p> <p>Water (K.F.): max. 2 %</p>
Hazard pictograms	
WGK:	1
Storage:	RT
Signal Word:	Danger
GHS Symbols:	GHS08
H Phrases:	<p>H317</p> <p>H334</p>
P Phrases:	<p>P261</p> <p>P280</p> <p>P342+P311</p>
Molecular Formula:	C ₁₆ H ₁₈ N ₃ NaO ₄ S
M:	371.39 g/mol
CAS:	69-52-3

AppliChem GmbH

Ottoweg 4 • D-64291 Darmstadt • Phone +49 6151 9357 0 • Fax +49 6151 9357 11 • info.de@itwreagents.com • www.itwreagents.com
 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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EINECS:	200-708-1
CS:	29411000
<p>Comment</p> <p>Ampicillin is a half-synthetic penicillin (β-lactam antibiotic), known to interfere with the wall peptide crosslinking in growing bacteria. It inhibits the enzyme activity of transpeptidase, carboxypeptidase and endopeptidase. Its action is bactericidal and the pH optimum for its action ranges from pH 5.5 - 6. At this pH value, its activity against <i>E. coli</i> is 10x higher in comparison to pH 8. Ampicillin sodium salt is readily watersoluble and stock solutions are prepared at concentrations of 50 mg/ml, stored at -20°C in aliquots. The working concentration in LB-ampicillin plates, LB or TB medium is 50 µg/ml (dilution 1 : 1000). Stability: The activity of a 10 % aqueous solution of ampicillin, if stored at +4°C (pH 7), is reduced by 15 % after 24 hours, 33 % after 48 hours and 65 % after 7 days. At room temperature, the corresponding loss of activity is 28 %, 45 % and 81 %, respectively.</p>	
<p>Bibliography</p> <p>(1) Nguyen-Distèche, M. et al. (1974) <i>Eur. J. Biochem.</i> 41, 457-463 Sensitivity to Ampicillin and Cephalothin of enzymes involved in wall peptide crosslinking in <i>E. coli</i> K12, strain 44.</p>	
	

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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