


Specification

**Colistin Sulfate *BioChemica***

**A2922**

<b>Physical Description:</b>	Solid
<b>Product Code:</b>	A2922
<b>Product Name:</b>	Colistin Sulfate <i>BioChemica</i>
<b>Specifications:</b>	Assay (HPLC): min. 77 % pH (1 %; H <sub>2</sub> O): 4.0 - 6.0 Loss on drying: max. 3.5 % Sulfate: 16 - 18 %
<b>Hazard pictograms</b>	
<b>UN:</b>	2811
<b>Class/PG:</b>	6.1/III
<b>ADR:</b>	6.1/III
<b>IMDG:</b>	6.1/III
<b>IATA:</b>	6.1/III
<b>WGK:</b>	1
<b>Storage:</b>	RT protected from light
<b>Signal Word:</b>	Danger
<b>GHS Symbols:</b>	GHS06
<b>H Phrases:</b>	H301
<b>P Phrases:</b>	P264 P301+P310

**AppliChem GmbH**

Ottoweg 4 • D-64291 Darmstadt • Phone +49 6151 9357 0 • Fax +49 6151 9357 11 • [info.de@itwreagents.com](mailto:info.de@itwreagents.com) • [www.itwreagents.com](http://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

Specification

**Colistin Sulfate *BioChemica***

**A2922**

	P321
	P330
	P405
	P501
<b>Molecular Formula:</b>	$C_{53}H_{104}N_{16}O_{21}S_2$
<b>M:</b>	1365.64 g/mol
<b>CAS:</b>	1264-72-8
<b>CS:</b>	29419000
<p><b>Comment</b></p> <p>Colistin was isolated from filtrates of <i>Bacillus colistinus</i> and is identical to Polymyxin E (mainly E1 and E2). It is a cyclic pentapeptide with a pentapeptide side chain. Colistin is active only against proliferating and non-proliferating gram negative organism. It interacts with phospholipids of the cytoplasmic membrane of bacteria and permeabilizes them. The efflux of essential components explains its bactericidal activity on non-proliferating organisms. The bactericidal activity will be reduced by divalent ions (<math>Fe^{2+}</math>, <math>Mn^{2+}</math>, <math>Ca^{2+}</math>, <math>Mg^{2+}</math>), unsaturated fatty acids and polyphosphates. <b>Stability</b>: A high stability is observed at pH values between 2 and 6. At pH values above 6.0, a slow inactivation occurs (pH 9, 24 hours, 50 % inactivation). At pH 2, only 1 % will be inactivated within 24 hours. Solutions with a concentration of 10 mg/ml are stable at +4°C for more than 10 - 14 days.</p>	

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