



# Polymyxin E1 Sulfate, EvoPure<sup>®</sup>

## PRODUCT DATA SHEET

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<b>Product Name:</b>	Polymyxin E1 Sulfate, EvoPure <sup>®</sup>
<b>Product Number:</b>	P055
<b>CAS Number:</b>	7722-44-3 (free base)
<b>Molecular Formula:</b>	$C_{53}H_{100}N_{16}O_{13} \cdot xH_2SO_4$ (lot specific)
<b>Molecular Weight:</b>	1169.46 g/mol (Free base)
<b>Form:</b>	Powder
<b>Solubility:</b>	Soluble in water, ethanol, and methanol
<b>Source:</b>	<i>Bacillus polymyxa var. colistinus</i>
<b>Storage Conditions:</b>	-20°C
<b>Description:</b>	Polymyxin E1 sulfate or colistin A is one of the two major components of polymyxin E (colistin). Polymyxin E1 and E2 are structurally similar and differ only by a fatty acid group at the N-terminus. Polymyxin E1 contains 6-methyloctanoic acid and <u>polymyxin E2</u> (colistin B) contains 6-methylheptanoic acid. Together, polymyxin E1 and E2 comprise approximately 85% of polymyxin E; however, 13 different polymyxin E components have been identified.
<b>Mechanism of Action:</b>	Polymyxin E has a bactericidal effect on Gram negative bacteria by interacting with and displacing essential ions in the lipopolysaccharide (LPS) outer cell wall leading to increased permeability and eventually lysis and death of the cell.
<b>Spectrum:</b>	Polymyxin E is used primarily against Gram negative bacteria including <i>Pseudomonas aeruginosa</i> , <i>Klebsiella pneumoniae</i> , and multi-drug resistant <i>Enterobacteriaceae</i> ,
<b>Microbiology Applications</b>	Polymyxin E1 and E2 (colistin A and B, respectively) can be used individually to study and compare <i>em&gt;</i> in vitro antimicrobial activity with colistin (polymyxin E complex) or other polymyxins.
<b>Technical Data:</b>	HPLC, NMR, FTIR, and MS analysis may be available. For more info, please email <a href="mailto:info@toku-e.com">info@toku-e.com</a> .

**References:**

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