



Clavulanate Potassium PRODUCT DATA SHEET

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Product Name:	Clavulanate Potassium
Product Number:	C232
CAS Number:	61177-45-5
Molecular Formula:	C ₈ H ₈ NO ₅ K
Molecular Weight:	237.3
Form:	Powder
Appearance:	White to off White Powder
Solubility:	Soluble in ethanol, methanol, DMF or DMSO. Good water solubility.
Source:	Streptomyces clavuligerus
Storage Conditions:	-20°C
Description:	<p>Clavulanate Potassium (Potassium Clavulanate) is a stable salt preparation of Clavulanic Acid, a natural, low-molecular weight β-lactam antibiotic. It has weak, broad-spectrum activity but offers synergistic antibacterial activity with penicillins and cephalosporins for greater efficacy against β-lactam resistant strains.</p> <p>We also offer:</p> <ul style="list-style-type: none">• Clavulanate Lithium (<u>C064</u>)• Clavulanic Acid Potassium w/ Cellulose (1:1) (<u>C065</u>)
Mechanism of Action:	<p>Clavulanate is a potent suicide inhibitor of β-lactamases. It forms a covalent bond with a serine residue in the enzyme's active site. Inhibition is time-dependent and irreversible. Clavulanic acid β-lactam antibiotics bind and inhibit PBPs (penicillin binding proteins) thus inhibiting bacterial cell wall synthesis.</p>
Microbiology Applications	<p>Clavulanic acid had poor activity against <i>S. aureus</i>, Enterobacteriaceae, and <i>P. aeruginosa</i>. However, it can act synergistically with penicillins and cephalosporins to inhibit β-lactamase-producing <i>S. aureus</i> and Enterobacteriaceae.</p>

References:

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