



Clavulanate Lithium PRODUCT DATA SHEET

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Product Name:	Clavulanate Lithium
Product Number:	C064
CAS Number:	61177-44-4
Molecular Formula:	$C_8H_8LiNO_5$
Molecular Weight:	205.09
Appearance:	White to light-yellow powder
Source:	<i>Streptomyces clavuligerus</i>
Description:	<p>Clavulanate Lithium (syn: Clavulanic Acid Lithium) is a stable salt preparation of Clavulanic, 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 Potassium (C232)• Clavulanic Acid Potassium w/ cellulose (1:1) (C065)
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 protein) thus inhibiting bacterial cell wall synthesis.</p>
Spectrum:	Weak broad-spectrum activity.
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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