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SPECIFICATION SHEET

POLYLYSINE 90%

Code No.	SCN No.	CAS No.	Effective Date	Product Manager	Rev. No.	Approved By
PLYZC9	3280	28211-04-3	November 8, 2011	SW	No. 2	NSG

CHARACTERISTICS:	<p>Polylysine 90% powder (ϵ-Poly-L-lysine) is a small polypeptide of the essential amino acid L-Lysine that is produced by fermentation of <i>Streptomyces</i>. Polylysine belongs to the group of cationic surfactants, which have documented antimicrobial effects against yeast, fungi, gram-positive bacteria and gram-negative bacteria. Compared with other biological preservatives like benzoates and sorbates, ϵ-Polylysine has not only an effect on a wide bacterial spectrum, but also is effective across a broad pH spectrum. Polylysine has also been shown to be synergistic with other natural antimicrobial agents like nisin, and also shows increased effectiveness when in the presence of cationic surfactants.</p>
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SPECIFICATIONS:	Appearance	Milky yellow to white powder
	Purity (dry basis)	90% min
	Moisture	10% max
	pH (in a 1% solution)	3.0-7.5
	Lead	2 ppm max
	Arsenic	3 ppm max
	Ash	3% max
	Microbials	
	Total plate count	10 cfu/g max
	Coliforms (MPN)	30 cfu/100g max
	Salmonella (in 25g)	Absent

PACKAGING:	1 kg, 5 kg or 10 kg cartons or drums with either 100 gram to 500 gram plastic bottles or plastic bag and aluminum foil bag
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APPLICATIONS:	<p>Polylysine is commercially used as a food preservative in Japan, the republic of Korea and in the USA. The use of polylysine is common in food applications like: boiled rice, cooked vegetables, soups, noodles and sliced fish (sushi). ϵ-Polylysine is "Generally Recognized As Safe" (GRAS) by the FDA for cooked rice and sushi rice at rates up to 50 ppm.</p> <p>Polylysine can also be used as a broad spectrum antibacterial agent in personal care applications.</p>
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SHELF LIFE AND STORAGE INSTRUCTIONS:	Store in well closed container in a dry location at ambient room temperature ($\sim 20^{\circ}$ C). Material should be retested against certificate of analysis three years from date of manufacture.
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OTHER:	<p>Polylysine is thermally stable. Plant is Chinese GMP compliant and Kosher approved. ϵ-Polylysine is a straight chain polymer of Lysine. It can decompose as lysine within the human body, and can be completely digested absorbed by the human body.</p>
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