

DESCRIPTION

INCI Name: Polyepsilon-lysine (Poly-ε-Lysine)

CAS NO.: 28211-04-3

Structural Formula: $C_{6n}H_{14n-2(n-1)}N_{2n}O_{2n-(n-1)}$ (n = 25 – 35)

Supershield EPL 100 is a safe and natural broad-spectrum preservative, effective against Gram-positive bacteria, Gram-negative bacteria, yeasts, moulds and viruses. It is suitable for a wide range of applications including food and cosmetics. Polyepsilon-lysine (Poly-ε-Lysine) is a naturally occurring homopolyamide which consists of 25-35 L-lysine residues, produced by bacterial fermentation of *Streptomyces Albus* under aerobic conditions. It is biodegradable and nontoxic towards humans. Additionally, it has been approved as a natural antimicrobial food additive by the FDA in 2003. It is known that Polyepsilon-lysine (Poly-ε-Lysine) is digested and broken down into lysine in the human body and is absorbed without causing any side effect.

TYPICAL PROPERTIES

Items	Specifications
Appearance	Light yellow powder
Active Content, %	≥ 95
Bacterial Strain	<i>Streptomyces Albus</i>
Solubility	Soluble in water
pH Value (1% Aqueous Solution)	4.0 – 6.5
Total Bacterial Count, cfu/100g	< 1000
Coliform, MPN/100g	< 30
Salmonella, cfu/25g	Absent
Stability	120°C 20min: No activity loss 100°C 30min: No activity loss 80°C 60min: No activity loss pH 1 – 13: no activity loss, less stable when pH < 3 or pH > 10

** The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications.*

STORAGE

In cool (0-20°C), dry conditions, away from direct sunlight, in original closed packages.

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SHELF LIFE

24 months

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