

# Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



## TECHNICAL DATA SHEET LIST-4485

### PRODUCT CLASSIFICATION

<b>Chemical Name</b>	<b>LITHIUM STEARATE (MICRONIZED)</b>
<b>Grade Name</b>	LIST-4485
<b>CAS No.</b>	4485-12-5
<b>HS Code</b>	2915.70.00
<b>EINECS No.</b>	224-772-5
<b>Molecular Formula</b>	$C_{18}H_{35}LiO_2$
<b>Molecular Weight</b>	~290.41 g/mol
<b>Synonyms</b>	Lithium octadecanoate, Stearic acid lithium salt

### PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White to slightly off-white powder	Visual
Odor	Odorless or faint fatty odor	Sensory
Free Fatty Acid	≤ 3.0% (as stearic acid)	Titration
Lithium Content (as Li)	2.5 – 3.5%	ICP / AAS
Loss on Drying	≤ 2.0%	Oven drying (105 °C)
Melting Point	200 – 220 °C (softens & decomposes)	Capillary
Solubility in Water	Insoluble	Literature
Solubility in Organic Solvents	Dispersible in hot oils, hydrocarbons	Observation
Bulk Density	0.25 – 0.45 g/cm <sup>3</sup>	Tapped Density
Particle Size (D50)	6 – 10 µm	Laser Diffraction
Particle Size (D99)	< 25 µm	Laser Diffraction

➤ The commercial product specification may include only a selection of the properties listed above; this additional data is provided for general technical reference.

### HEAVY METALS (EU REGULATION 10/2011 – CONTENT LIMITS IN ADDITIVES)

Element	Typical Limit	Test Method
Lead (Pb)	≤ 5 ppm	ICP, AAS, XRF
Cadmium (Cd)	≤ 1 ppm	ICP, AAS
Mercury (Hg)	≤ 1 ppm	ICP, CV-AAS
Arsenic (As)	≤ 1 ppm	ICP, AAS

### USES / APPLICATION

Industry	Commercial Application / Uses (Micronized Grade)
Lubricating Greases	Primary thickener in lithium-based greases
Plastics	Lubricant and mold-release additive for PE, PP, PVC

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Powder Coatings	Flow modifier and degassing agent
Rubber	Processing aid and mold-release component
Paints & Inks	Dispersing and flatting agent in solvent-based systems

## US FDA 21 CFR LISTING

CFR Section	Title / Description
178.3910	Surface lubricants used in manufacture of metallic food-contact articles
175.300	Resinous and polymeric coatings – indirect food contact
178.2010	Stabilizers and lubricants in polymers

## COLOUR IMPACTING IMPURITIES

Element	Typical Max Limit (ppm)	Test Method
Iron (Fe)	≤ 100 ppm	ICP, AAS, XRF
Manganese (Mn)	≤ 30 ppm	ICP, AAS, XRF
Copper (Cu)	≤ 20 ppm	ICP, AAS, XRF
Nickel (Ni)	≤ 20 ppm	ICP, AAS, XRF
Chromium (Cr)	≤ 10 ppm	ICP, AAS, XRF

## PRODUCT PERFORMANCE IMPACTING IONS / IMPURITIES

Ion / Element	Typical Max Limit (ppm)	Test Method
Sodium (Na)	≤ 100 ppm	ICP, AAS, XRF
Potassium (K)	≤ 100 ppm	ICP, AAS, XRF
Calcium (Ca)	≤ 300 ppm	ICP, AAS, XRF
Magnesium (Mg)	≤ 200 ppm	ICP, AAS, XRF
Chloride (Cl <sup>-</sup> )	≤ 100 ppm	Ion Chromatography
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	≤ 100 ppm	Ion Chromatography

### Disclaimer:

Lithium Stearate is intended for industrial use only. Suitability for regulated applications such as food contact must be confirmed case-by-case with proper certification. Not intended for pharmaceutical or medical implant use. Typical values are not specifications unless confirmed in writing.

**Month of Creation:** July 2025

**Month of Review:** July 2027