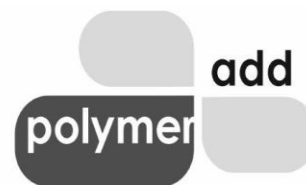


Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalaremprikiat, 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

STEARIC ACID (MICRONIZED)

PRODUCT CLASSIFICATION

Item	Description
Chemical Name	Stearic Acid
CAS No.	57-11-4
HS Code	3823.11.00
EINECS No.	200-313-4
Molecular Formula	$C_{18}H_{36}O_2$
Molecular Weight	~284.48 g/mol
Synonyms	Octadecanoic acid

PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White micronized powder	Visual
Odor	Mild fatty odor	Sensory
Purity	≥ 98.5%	GC / Titration
Acid Value	205 – 210 mg KOH/g	Titration
Iodine Value	≤ 1.0	Wijs Method
Melting Point	68 – 72 °C	DSC
Moisture	≤ 0.5%	Oven drying
Bulk Density	0.30 – 0.50 g/cm ³	Tapped Density
Particle Size (D50)	5 – 10 µm	Laser Diffraction
Particle Size (D90)	< 30 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)	≤ 2 ppm	ICP, AAS
Cadmium (Cd)	≤ 1 ppm	ICP, AAS
Mercury (Hg)	≤ 1 ppm	ICP, CV-AAS
Arsenic (As)	≤ 1 ppm	ICP, AAS

USES / APPLICATION (MICRONISED / SOLID-STATE RELEVANT)

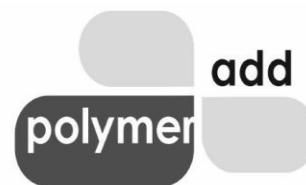
Industry	Commercial Application / Uses
Polyolefins (PE, PP)	Internal and external lubricant; reduces melt friction and improves processing flow in extrusion and molding

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PVC Processing	External lubricant: controls fusion behavior and reduces die build-up in rigid and flexible PVC
Masterbatch & Compounds	Dispersion aid for pigments and fillers; improves distribution and reduces agglomeration
Engineering Plastics	Processing aid to enhance flow and reduce torque during compounding
Rubber Processing	Internal lubricant and mold release agent; improves filler dispersion and surface finish
Powder Processing & Dry Blends	Flow aid and anti-caking agent; improves handling, feeding, and storage stability of micronised powders
Functional Fillers & Mineral Systems	Surface treatment aid for fillers (CaCO ₃ , talc, etc.); improves compatibility with polymer matrix
Additive One-Pack Systems	Carrier-compatible component in pre-blended additive systems; enhances homogeneity and dosing consistency
Coatings (Powder Systems)	Slip and flow modifier in powder coatings; improves surface smoothness and application consistency
Mold Release Applications (Solid Form)	Reduces adhesion to molds and processing equipment in solid-phase processing

US FDA 21 CFR LISTING

CFR Section	Title / Description
21 CFR 184.1090	Stearic Acid is listed as Generally Recognized As Safe (GRAS) for use under GMP conditions (food-related applications).

For polymer and industrial applications, regulatory compliance must be evaluated separately by the user.

DISCLAIMER

This product is intended for industrial use in polymer, coating, or specialty chemical applications. It is not recommended for pharmaceutical or direct food use unless separately certified. Compliance with food-contact and regional regulatory approvals must be verified by the user. Values above are typical for general reference and not binding specifications unless explicitly confirmed in writing.

Month of Creation: July 2025

Month of Review: July 2027