

# 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

### TRIMETHYLOLPROPANE TRISTEARATE (MICRONIZED)

#### PRODUCT CLASSIFICATION

Item	Description
Chemical Name	TRIMETHYLOLPROPANE TRISTEARATE
CAS No.	57675-44-2
HS Code	3824.99.99
EINECS No.	260-895-0
Molecular Formula	$C_{57}H_{110}O_6$
Molecular Weight	~891.5 g/mol
Synonyms	TMP Tristearate, Trimethylolpropane tri-octadecanoate

#### PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White to off-white micronized powder	Visual
Odor	Odorless to mild fatty odor	Sensory
Purity	≥ 98.0%	GC
Acid Value	≤ 5 mg KOH/g	Titration
Saponification Value	185 – 195 mg KOH/g	Titration
Melting Point	55 – 65 °C	DSC
Moisture	≤ 0.5%	Oven drying
Bulk Density	0.30 – 0.50 g/cm <sup>3</sup>	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)

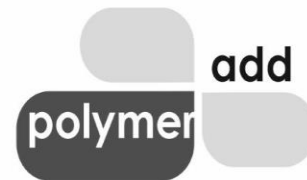
Industry	Commercial Application / Uses
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Polyolefins (PE, PP)	High-efficiency internal and external lubricant; improves melt flow, reduces torque, and enhances processing stability
PVC Processing	External lubricant; provides controlled fusion behavior and excellent metal release properties
Engineering Plastics	Processing aid for improved flow and surface finish in technical resins
Masterbatch & Compounds	Dispersion aid for pigments and fillers; enhances uniform distribution and reduces agglomeration
Rubber Processing	Internal lubricant and mold release agent; improves filler dispersion and reduces sticking
Powder Processing & Dry Blends	Flow aid and anti-caking agent; improves powder handling and feeding consistency
Functional Fillers & Mineral Systems	Surface modification aid for fillers; improves compatibility with polymer matrix
Additive One-Pack Systems	Component in pre-blended additive systems; improves homogeneity and dosing accuracy
Coatings (Powder Systems)	Slip and flow modifier; improves surface smoothness and reduces defects
Mold Release Applications (Solid Form)	Reduces adhesion to molds and processing equipment; enhances demolding efficiency

## US FDA 21 CFR LISTING

CFR Section	Title / Description
Not specifically listed	Not directly listed under US FDA 21 CFR for polymer additive use. Regulatory compliance must be evaluated based on end-use application.

## 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