

Polymer Add (Thailand) Co.,Ltd.

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GLYCERYL MONOSTEARATE (GMS) 90% MICRONISED

1) Brief Introduction to Micronised Grade of GMS 90%

Micronised Glyceryl Monostearate (GMS) 90% is a high-purity mono-glyceride derived from stearic acid, processed into a controlled fine powder to improve dispersion, surface activity, and functional efficiency. The micronised grade is specifically engineered for applications where uniform distribution, faster melting response, and consistent performance are required. Compared to standard flake or bead forms, micronisation significantly enhances handling, blending uniformity, and process stability.

2) Chemical & Physical Information (Micronised Grade)

Parameter	Description
CAS Number	31566-31-1
Chemical Name	Glyceryl Monostearate
Synonyms	GMS, Glycerol Monostearate, Monostearin
Typical Purity	≥ 90% mono-glyceride
Melting Range	58 – 65 °C
Physical Appearance	Off-white to white free-flowing micronised powder

Particle Size Distribution (Micronised Grade)

Particle Size Parameter	Typical Value
D50	10 – 15 µm
D90	≤ 30 µm
D99	≤ 45 µm

3) Main Applications (Table Form)

Industry / Segment	Application
Polymer Processing	Internal lubricant, processing aid
Masterbatch Manufacturing	Flow modifier, dispersion aid
Food & Nutrition	Emulsifier, stabiliser
Pharmaceutical	Excipient, controlled-release systems
Cosmetics & Personal Care	Emulsion stabiliser
Powder Blends	Anti-caking and flow improvement

4) Main Uses of Micronised Grade (Table Form)

Use Category	Functional Role of Micronised GMS 90%
Lubrication	Reduces internal friction during melt processing
Dispersion	Promotes uniform distribution of pigments and fillers
Emulsification	Enhances oil-water phase stability
Flow Improvement	Improves powder flow and dosing accuracy

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Surface Modification

Improves surface finish and release properties

5) Specific Mentions – Micronised Grade Highlights

- Micronised particle size enables **faster and more uniform melting** compared to flakes or beads
- Improved **dispersion efficiency at low addition levels**
- Suitable for **high-shear and low-shear blending processes**
- Reduced risk of **visible specks or agglomerates** in finished products
- Preferred where **consistent batch-to-batch performance** is critical

6) Disclaimer

The information provided in this article is based on general industry knowledge, typical material characteristics, and internal processing experience. It is intended for technical reference only and does not constitute a guarantee of performance or suitability for any specific application. Users are advised to conduct their own evaluations and trials under actual processing conditions before commercial use.

Date of Creation: 26 December 2025

Date of Review: 26 December 2025

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