

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

SODIUM METASILICATE (MICRONIZED)

PRODUCT CLASSIFICATION

Item	Description
Chemical Name	Sodium Metasilicate
CAS No.	6834-92-0
HS Code	2839.19.00
EINECS No.	229-912-9
Molecular Formula	Na ₂ SiO ₃
Molecular Weight	~122.06 g/mol
Synonyms	Sodium Silicate (Metasilicate), Disodium Silicate

PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White micronized powder	Visual
Odor	Odorless	Sensory
Assay (Na ₂ SiO ₃)	≥ 98%	Titration
Moisture	≤ 1.5%	Oven drying at 105 °C
pH (1% solution)	12.0 – 13.0	pH meter
Specific Gravity	~2.4 – 2.6	Pycnometer
Bulk Density	0.80 – 1.20 g/cm ³	Tapped Density
Water Solubility	Soluble	Visual
Particle Size (D50)	3 – 8 µm	Laser Diffraction
Particle Size (D90)	< 25 µm	Laser Diffraction
Whiteness	≥ 85%	Reflectance

➤ 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	Application	Use
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Polyolefins (PE, PP)	Functional additive	Improves filler compatibility and dispersion
PVC Processing	Processing aid	Enhances melt homogeneity and stability
Engineering Plastics	Functional filler	Improves dimensional stability and rigidity
Masterbatch & Compounds	Carrier / additive	Improves dispersion and cost efficiency
Rubber Processing	Functional additive	Improves filler incorporation and processing consistency
Coatings (Powder Systems)	Functional additive	Improves surface uniformity and dispersion
Adhesives & Sealants (Solid Systems)	Rheology modifier	Improves formulation stability
Functional Fillers & Mineral Systems	Alkaline modifier	Enhances interaction with acidic fillers
Powder Processing & Dry Blends	Anti-caking aid	Improves flowability and reduces agglomeration
Polymer-Paper / Composite Systems	Functional additive	Improves bonding, opacity, and surface properties

US FDA 21 CFR LISTING

CFR Section	Title / Description
21 CFR 178.3297	Permitted as additive in polymers under specified conditions
21 CFR 176.170	Permitted for use in paper and paperboard in contact with food under specified conditions

Compliance with applicable use levels, migration limits, and end-use conditions must be verified by the user.

DISCLAIMER

This product is intended for industrial use in polymer, coating, rubber, adhesive, and 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.