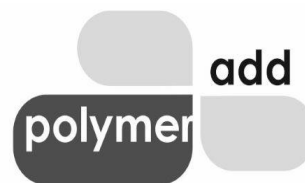


Polymer Add (Thailand) Co.,Ltd.

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



TECHNICAL DATA SHEET MDBS

PRODUCT CLASSIFICATION

Item	Description
Chemical Name	1,3:2,4-Bis-(4-methylbenzylidene)sorbitol
Grade Name	MDBS
CAS No.	135861-56-2
HS Code	2940.00.90
EINECS No.	Not available (polymeric structure)
Molecular Formula	$C_{22}H_{26}O_6$
Molecular Weight	~386.44 g/mol
Synonyms	BMBS, Bis(4-methylbenzylidene)sorbitol

PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White to pale yellow fine powder	Visual
Odor	Odorless to slight aromatic	Sensory
Purity	≥ 98.0%	HPLC
Melting Point (Softening Range)	~220 – 245 °C (Decomposes slowly)	DSC / Capillary
Solubility in Water	Insoluble	Literature
Solubility in Organic Solvents	Slightly soluble in polar solvents	Observation
Bulk Density	0.25 – 0.45 g/cm ³	Tapped Density
Particle Size (D50)	5 – 9 µm (micronized)	Laser Diffraction
Particle Size (D90)	< 18 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)	≤ 3 ppm	ICP, AAS
Mercury (Hg)	≤ 1 ppm	ICP, CV-AAS
Arsenic (As)	≤ 1 ppm	ICP, AAS

USES / APPLICATION

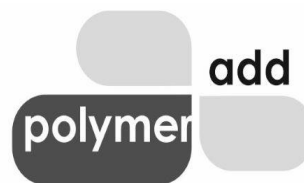
Industry	Commercial Application / Uses
Polypropylene & Polyethylene	Clarifying agent for injection molding, blow molding, and film extrusion
Thermoplastics	Transparency enhancer in semi-crystalline polymers

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Masterbatch & Compounds	Incorporated into nucleating/clarifying masterbatches
Food Contact Plastics	Suitable for select FDA/EU compliant polymers (see below)
Household & Packaging	Used in microwave containers, housewares, and rigid packaging

US FDA 21 CFR LISTING

CFR Section	Title / Description
178.3297	Clarifying agents for polymers – authorized for use in PP and PE food contact applications (with limits)

COLOUR IMPACTING IMPURITIES

Element	Typical Max Limit (ppm)	Test Method
Iron (Fe)	≤ 50 ppm	ICP, AAS, XRF
Manganese (Mn)	≤ 10 ppm	ICP, AAS, XRF
Copper (Cu)	≤ 10 ppm	ICP, AAS, XRF
Nickel (Ni)	≤ 5 ppm	ICP, AAS, XRF
Chromium (Cr)	≤ 5 ppm	ICP, AAS, XRF

PRODUCT PERFORMANCE IMPACTING IONS / IMPURITIES

Ion / Element	Typical Max Limit (ppm)	Test Method
Sodium (Na)	≤ 100 ppm	ICP, AAS
Potassium (K)	≤ 100 ppm	ICP, AAS
Chloride (Cl ⁻)	≤ 50 ppm	Ion Chromatography
Sulfate (SO ₄ ²⁻)	≤ 50 ppm	Ion Chromatography

Disclaimer:

This product is intended for industrial applications only. Users must confirm compliance with regional food contact or regulatory laws. Typical values do not represent product specifications unless explicitly agreed in writing.

Month of Creation: July 2025

Month of Review: July 2027