

# 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 DBS

### PRODUCT CLASSIFICATION

Item	Description
Chemical Name	1,3:2,4-Dibenzylidene-D-sorbitol
Grade Name	DBS
CAS No.	32647-67-9
HS Code	2940.00.90
EINECS No.	251-146-5
Molecular Formula	C <sub>20</sub> H <sub>22</sub> O <sub>6</sub>
Molecular Weight	~358.39 g/mol
Synonyms	DBS, Dibenzylidene sorbitol

### PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White to off-white fine powder	Visual
Odor	Odorless or faint aromatic	Sensory
Purity	≥ 98.0%	HPLC
Melting Point (Softening Range)	~210 – 230 °C	DSC / Capillary
Solubility in Water	Insoluble	Literature
Solubility in Organic Solvents	Slightly soluble in polar organic solvents	Observation
Bulk Density	0.25 – 0.45 g/cm <sup>3</sup>	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)	≤ 2 ppm	ICP, AAS, XRF
Cadmium (Cd)	≤ 1 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 semi-crystalline polyolefins
Thermoplastics	Improves transparency and reduces haze
Masterbatch & Compounds	Used in clarifying masterbatches for rigid containers
Food Contact Plastics	Suitable for select EU food packaging uses (see below)
Consumer Goods	Household articles, cosmetic containers, microwaveable items

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## US FDA 21 CFR LISTING

CFR Section	Title / Description
178.3297	Clarifying agents for polymers – authorized for use in food contact polymers (subject to conditions)

## 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 <sup>-</sup> )	≤ 50 ppm	Ion Chromatography
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	≤ 50 ppm	Ion Chromatography

### Disclaimer:

This product is intended for industrial use in polymer processing. Compliance with specific food-contact regulations (FDA/EU) must be verified by the user. Values above are for general reference and not binding specifications unless confirmed in writing.

**Month of Creation:** July 2025

**Month of Review:** July 2027