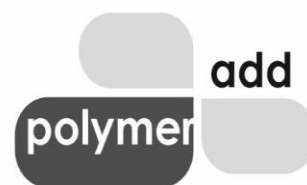


Polymer Add (Thailand) Co.,Ltd.

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



TECHNICAL DATA SHEET GTB-587

PRODUCT CLASSIFICATION

Chemical Name	GLYCERINE TRIBENZOATE (MICRONIZED)
Grade Name	GTB-587
CAS No	614-33-5
HS Code	2916.31.90
EINECS No	210-383-2
Molecular Formula	$C_{24}H_{22}O_6$
Molecular Weight	406.43 g/mol
Synonyms	Glycerol tribenzoate, Tri-O-benzoyl glycerol

TECHNICAL PROPERTIES

PROPERTY	TYPICAL VALUE / DESCRIPTION	TEST METHOD
Appearance	White to off-white powder	Visual
Odor	Mild ester odor	Sensory
Melting Point	55 – 60 °C	Capillary Method
Moisture Content	≤ 0.5%	Oven Drying at 105 °C
Bulk Density	0.30 – 0.45 g/cm ³	Tapped Density
Solubility in Water	Insoluble	Visual Observation
Solubility in Organic Solvents	Soluble in esters, alcohols, chlorinated solvents	Gravimetric/Visual
pH (10% in ethanol-water)	6.0 – 7.5	pH Meter
Particle Size (D50)	Typically, 8 – 12 µm	Laser Diffraction
Particle Size (D99)	Typically, < 35 µm	Laser Diffraction

➤ The commercial specification may include only a subset of these values. Listed data is for technical reference.

HEAVY METALS (EU REGULATION 10/2011 – CONTENT LIMITS IN ADDITIVES FOR PLASTICS)

ELEMENT	TYPICAL MAX LIMIT (ppm)	TEST METHOD
Lead (Pb)	≤ 5 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

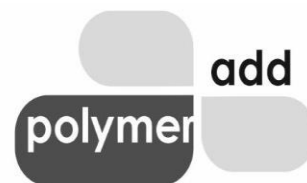
INDUSTRY	COMMERCIAL APPLICATION / USES (MICRONIZED GRADE)
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Plastics	High-efficiency plasticizer for PVC, PVAc, nitrile resins
Inks & Coatings	Solvent-resistant plasticizer in nitrocellulose and UV ink formulations
Adhesives	Performance enhancer in hot melt and solvent-based adhesives
Films & Sheets	Used in flexible films requiring low odor and good migration resistance
Rubber Compounds	Modifier for polar elastomers and specialty formulations

US FDA 21 CFR LISTING

CFR SECTION	TITLE / DESCRIPTION
175.105	Adhesives – permitted for indirect food contact
176.180	Paper and paperboard components for dry food
177.1680	Polyurethane resins (indirect food additives)
178.3910	Surface lubricants used in food packaging machinery

COLOUR IMPACTING IMPURITIES

ELEMENT	TYPICAL MAX LIMIT (ppm)	TEST METHOD
Iron (Fe)	≤ 150 ppm	ICP, AAS, XRF
Manganese (Mn)	≤ 30 ppm	ICP, AAS, XRF
Copper (Cu)	≤ 20 ppm	ICP, AAS, XRF
Nickel (Ni)	≤ 20 ppm	ICP, AAS, XRF
Chromium (Cr)	≤ 10 ppm	ICP, AAS, XRF

PRODUCT PERFORMANCE IMPACTING IMPURITIES

ION / ELEMENT	TYPICAL MAX LIMIT (ppm)	TEST METHOD
Sodium (Na)	≤ 100 ppm	ICP, AAS, XRF
Potassium (K)	≤ 100 ppm	ICP, AAS, XRF
Calcium (Ca)	≤ 200 ppm	ICP, AAS, XRF
Magnesium (Mg)	≤ 150 ppm	ICP, AAS, XRF
Chloride (Cl ⁻)	≤ 50 ppm	Ion Chromatography
Sulphate (SO ₄ ²⁻)	≤ 50 ppm	Ion Chromatography

PRODUCT DISCLAIMER

This product is intended for industrial applications. Values listed are typical and not specifications unless explicitly agreed upon in writing. Product suitability should be tested under actual processing conditions. Not for pharmaceutical or biomedical use.

Month of Creation: July 2025

Month of Review: July 2027