

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 PBZ-5825

PRODUCT CLASSIFICATION

Item	Description
Chemical Name	Potassium Benzoate
Grade Name	PBZ-5825
CAS No.	582-25-2
HS Code	2916.31.90
EINECS No.	209-481-3
Molecular Formula	$C_7H_5KO_2$
Molecular Weight	~160.22 g/mol
Synonyms	Benzoic acid potassium salt, E212

PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White crystalline or micronized powder	Visual
Odor	Odorless	Sensory
Purity	≥ 99.0% (on dry basis)	Titration / HPLC
pH (1% solution)	7.5 – 9.0	pH meter
Loss on Drying	≤ 2.0%	Oven drying at 105 °C
Melting Point / Decomposition	~292 °C (decomposes)	Literature
Solubility in Water	Soluble (approx. 50–60 g/100 mL at 25 °C)	Literature
Solubility in Alcohol	Slightly soluble	Observation
Bulk Density	0.45 – 0.65 g/cm ³	Tapped Density
Particle Size (Micronized D50)	6 – 12 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

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USES / APPLICATION

Industry	Commercial Application / Uses
Plastics & Polymers	Acid scavenger, nucleating agent for polyolefins
PVC & Rubber	Synergist with heat stabilizers, dehydrochlorination suppressant
Coatings & Adhesives	Antimicrobial preservative and stabilizer
Food Packaging (indirect)	Suitable for polymer additives used in food contact articles (subject to regulations)
Other Uses	Preservative in formulations, moisture control systems

US FDA 21 CFR LISTING

CFR Section	Title / Description
182.3640	GRAS – Preservative
175.105	Adhesives – food contact permitted
178.3297	Clarifying agents and stabilizers for polymers

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
Calcium (Ca)	≤ 200 ppm	ICP, AAS
Chloride (Cl ⁻)	≤ 100 ppm	Ion Chromatography
Sulfate (SO ₄ ²⁻)	≤ 100 ppm	Ion Chromatography

Disclaimer:

This product is intended for industrial use in polymer, coating, or 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.

Month of Creation: July 2025

Month of Review: July 2027