

CERTIFICATE OF ANALYSIS

Product: DL-Mandelic Acid
INCI Name: MANDELIC ACID
CAS No.: 90-64-2
Lot No.: BPCDLMAP102026
Expiry Date: November 25, 2029
Origin: China

Test Item	Specification	Result
Appearance	White crystal	White crystal
Assay (Dry Basis)	98.0–102.0%	100.0%
Melting Point	117–121°C	118.5–119.1°C
Specific Rotation $[\alpha]_D^{20}$	$\pm 0.25^\circ$	0°
Transmittance	$\geq 90\%$	99.8%
Turbidity	<20 NTU	0.87 NTU
Moisture	$\leq 0.5\%$	0.12%
Solubility	Soluble in water & ether	Conforms

HEAVY METALS

Test Item	Specification	Result	Unit
Lead (Pb)	≤ 10	Not Detected	mg/kg
Cadmium (Cd)	≤ 5	Not Detected	mg/kg
Arsenic (As)	≤ 2	$< 3.3 \times 10^{-3}$	mg/kg
Mercury (Hg)	≤ 1	Not Detected	mg/kg
Total Heavy Metals	≤ 20	Conforms	$\mu\text{g/g}$

MICROBIOLOGICAL ANALYSIS

Test Item	Specification	Result
Aerobic Bacterial Count	$\leq 1,000$ CFU/g	<10 CFU/g
Molds & Yeasts	≤ 100 CFU/g	<10 CFU/g
Thermotolerant Coliform	Absent	Not Detected
Staphylococcus aureus	Absent	Not Detected
Pseudomonas aeruginosa	Absent	Not Detected

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