

Certificate of analysis

Melatonin

CAS No.	73-31-4	Code	BIOJMEL001
Batch No	XPSM240409	Manufacture Date	Apr.07, 2024
Expiry Date	Apr.06, 2027	Quantity	10Kgs

Testing Items	Specifications	Results
Appearance	A white to off-white crystalline powder.	Complies
Solubility	Slightly soluble in water, soluble in acetone, ethyl acetate and methanol	Complies
Identification	IR UV HPLC	Complies Complies Complies
Chloride and sulfate	$\leq 0.02\%$	$< 0.02\%$
Loss on drying	$\leq 1.0\%$	0.09%
Residue on ignition	$\leq 0.1\%$	0.04%
Melting range	117~120°C	119.0~119.3°C
Particle size	$\geq 98\%$ through 80 mesh	Complies
Microorganism	Total plate count ≤ 1000 cfu/g Yeasts and Molds ≤ 100 cfu/g E.Coli: Absent in 10g Salmonella: Absent in 10g S.aureus: Absent in 10g	< 1000 cfu/g < 100 cfu/g Absent in 10g Absent in 10g Absent in 10g
Residual solvent	Ethanol ≤ 500 ppm	428ppm
Density	Tap density ≥ 0.45 g/ml Bulk density ≥ 0.35 g/ml	0.56g/ml 0.45g/ml
Clarity and degree of opalescence of liquids	Clear in the 1% melatonin solution of ethanol of chloroform	Complies
Heavy metals	Total ≤ 10 ppm Pb ≤ 1 ppm As ≤ 1 ppm Hg ≤ 0.1 ppm Cd ≤ 0.5 ppm	< 10 ppm < 1 ppm < 1 ppm < 0.1 ppm < 0.5 ppm
Related compounds	Any individual impurity $\leq 0.1\%$ Total impurities $\leq 1.0\%$	0.060% 0.37%
Assay(on the dried basis)	98.5%~101.5%	99.65%
Conclusion	This product conforms to USP-NF2023 standard	

***Storage condition: Store below 25°C, Protect from moisture and light.**