



QINGDAO HAOSAIL SCIENCE CO.,LTD

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CERTIFICATE OF ANALYSIS

Product Name	Hyaluronic acid HW
Batch Number	23090504
Lot Quantity	100KG
MFG.Date	Sep.05.2023
RETEST DATE	Sep.04.2027
Country of Origin	China

Items of Analysis	Specification	Results
Appearance	White or almost white powder or granule	Conform
Glucuronic acid	$\geq 44.5\%$	47.3%
Sodium Hyaluronate	$\geq 92.0\%$	97.8%
PH	5.0~8.5	6.6
Transparency	$\geq 99.0\%$	99.90%
Molecular weight, Da	As per request	1500KDa
Intrinsic Viscosity	Measured value	23.7dL/g
Protein	$\leq 0.10\%$	0.04%
Bulk density	Measured value	0.27g/cm ³
Tap density	Measured value	0.39g/cm ³
Residue on ignition	$\leq 20.0\%$	12.70%
Loss on drying	$\leq 10.0\%$	7.40%
Heavy metals (Pb)	$\leq 20\text{ppm}$	$< 10\text{ppm}$
Bacteria count	$\leq 100\text{cfu/g}$	Conform
Mold and yeast	$\leq 50\text{cfu/g}$	Conform
Pseudomonas aeruginosa	Negative	Negative

Conclusion	This batch of product conforms to the Specification.
Storage	Store in cool, dry place and away from strong light and heat