



## Certificate of Analysis

Also known as sodium polyglutamate

Product name	$\gamma$ -polyglutamic acid( $\gamma$ -PGA)	Molecular Weight:	10-700KDa
Batch No.:	PGAL202412091	Package:	1kg/bag
MFG Date:	2024/12/09	Quantity:	30kg
EXP Date:	2026/12/08	Standard:	In house

Items	Standards	Results
Appearance	White or off-white powder or granule	Conform
Assay (as Na)	$\geq 92.0\%$	92.2%
pH (1% solution)	5.0-7.5	6.0
Intrinsic viscosity	0.1-1.0	0.40 dL/g
Molecular weight	10-700KDa	Conform
Absorbance (4%, 400nm)	$\leq 0.12$	0.03
Loss on drying	$\leq 10.0\%$	5.2%
Residue on ignition	$\leq 0.3\%$	0.1%
Lead	$\leq 10\text{ppm}$	$< 10\text{ppm}$
Arsenic	$\leq 2\text{ppm}$	$< 2\text{ppm}$
Mercury	$\leq 1\text{ppm}$	$< 1\text{ppm}$
Cadmium	$\leq 5\text{ppm}$	$< 5\text{ppm}$
Total Plate count	$\leq 100 \text{ CFU/g}$	$< 100 \text{ CFU/g}$
Yeast & molds	$\leq 100 \text{ CFU/g}$	$< 10 \text{ CFU/g}$
Thermophilic coliform	Negative	Negative
Pseudomonas aeruginosa	Negative	Negative
Staphylococcus aureus	Negative	Negative
Conclusion:	Conform to the enterprise standard.	

