

HYGENEPHARMA COMPANY LIMITED

CERTIFICATE OF ANALYSIS

Production name	L-Glutathione reduced	CAS No.	70-18-8
Batch No.	GSH-21230602	Formula	C ₁₀ H ₁₇ N ₃ O ₆ S
MFG. Date	Mar. 06, 2025	Specification	400mg
Expiry Date	Mar. 05, 2027	Report Date	Mar.15, 2025
Storage conditions	Store in cool place(2~8℃). Keep container tightly closed in a dry and well-ventilated place.		
Inspection Standard	Enterprise Standard		
Test Items	Specifications	Results	Analytical method reference
Appearance	White or almost white crystalline powder	White crystalline powder	visual
Identification IR	Conforms to the Reference Spectrum	Conforms to the Reference Spectrum	USP<197k>
Optical rotation	-15.5° to -17.5°	-15.5°	USP<781s>
Appearance of solution	Clear and colorless	Clear and colorless	visual
Chlorides	Not more than 200 ppm	Complied	USP<221>
Sulfates	Not more than 300 ppm	Complied	USP<221>
Ammonium	Not more than 200 ppm	Complied	Glutathione USP monograph
Iron	Not more than 10 ppm	Complied	USP<241>
Arsenic	Not more than 1 ppm	Complied	AFS
Heavy metals	Not more than 10 ppm	Complied	USP<231>
Cadmium (Cd)	Not more than 1 ppm	Complied	AAS
Plumbum (Pb)	Not more than 3 ppm	Complied	AAS
Mercury (Hg)	Not more than 1 ppm	Complied	AFS
Sulfated ash	Not more than 0.1%	0.069%	USP<281>
Loss on drying	Not more than 0.5%	0.396%	USP<731>
Bulk density	Not less than 0.2g/ml	0.3366g/ml	USP<616>
Tapped density	Not less than 0.4g/ml	0.6383g/ml	USP<616>
Total plate count	≤ 1000cfu/g	Complied	USP<61>
Yeast and mold count	≤ 100cfu/g	Complied	USP<61>
Salmonella	Negative	Complied	USP<62>
Related Substances	Total	Maximum 2.0%	1.83%
	GSSG	Maximum 1.5%	0.96%
Assay	98.0% to 102.0%	100.13%	Glutathione USP monograph
Conclusion: Complies with Enterprise Standard			

Analyst: Liuyanmei

Auditor: Shenyanyun

