

CERTIFICATE OF ANALYSIS

Product Name:	D-Panthenol		
Batch No.	20231203	CAS.No.	81-13-0
Manufacturing Date	December 3, 2023	Expiry Date TO	December 2, 2024
M.F.	$C_9H_{19}NO_4$	N.W.	20,000.00kg
G.W.	21,000.00kg	Package	20.00kg /plastic drum
Analytical results			
Items	Specifications		Results
Appearance	A colorless or slightly yellowish, viscous hygroscopic liquid (may crystallized on storage)		Conform
Identification	Positive reaction		Conform
Assay,%	98.0-102.0		99.5
Water,%	≤1.00		0.25
Specific optical rotation	+29.00° ~ +31.50°		+30.50°
Limit of aminopropanol ,%	≤1.00		0.56
Residue on ignition,%	≤0.10		0.08
Refractive index(20°C)	1.495 ~ 1.502		1.498
Heavy metals,ppm	≤20.00		Conform
Organic volatile impurities	Meets the requirements		Conform
Storage	Stored in dry and ventilation place, far from heat and water.		
Conclusion	The Quality of the above said is in conformity with USP standard.		

Inspector: Carlifor Wu

Verifier: Jack He