

CERTIFICATE OF ANALYSIS**Product name: D-Panthenol USP**

Batch No.:	19102101	Quantity	1340kgs
Manufacturing Date	10/21/2019	Expiry Date	10/21/2022

Item	Standard	Result
Appearance	Colorless or slightly yellowish viscous liquid, Slightly characteristic odor	Conforms
Specific Rotation° (on anhydrous basis)	+29.0 ~+31.5	+30.8
Refractive Index	1.495~1.502	1.499
Limit of 3-Aminopropanol %	≤1.0	0.7
Assay (C ₉ H ₁₉ NO ₄) % (on anhydrous basis)	98.0~102.0	99.5
Heavy Metals (As Pb) %	≤0.001	Conforms
Water %	≤1.0	0.3
*Identification (A,B,C)	Positive reaction	Conforms
*Residue on Ignition %	≤0.1	Conforms
Conclusion: Approved to USP		

Note: Items marked with asterisk are tested periodically randomly.Compiled by: *Lena Yan*Rechecked by: *christina*