



CERTIFICATE OF ANALYSIS

Product Name	D-Calcium Pantothenate (USP40)
CAS No.	137-08-6
Batch Number	191117S02
Batch Quantity	5000kgs
Date Of Manufacture	Nov. 17, 2019
Date of Expiry	Nov. 16, 2022
Date Of Report	Nov. 17, 2019

This is to certify that the quality of the subject product is as follows:

Item	Standard	Test Result
Appearance	White powder	Conform
Identification		
A: Infrared Absorption <197k>	Concordant with the reference spectrum	Conform
B: A solution (1 in 20) responds to the tests for Calcium	Conform to USP40	Conform
Specific optical rotation	+25.0° ~+27.5°	+26.4°
Alkalinity	No pink color is produced within seconds	Conform
Loss on drying	Not more than 5.0%	2.00%
Heavy metals (colorimetry)	Not more than 20ppm	Conform
Ordinary impurities (TLC)	Not more than 1.0%	Conform
Methanol residue (GC)	Meet the requirements	Conform
Content of calcium	8.2~8.6%	8.33%
Assay	98.0%-101.0%	98.20%
Conclusion: The results conform to the standard of USP40.		

