

CERTIFICATE OF ANALYSIS

Product Name	Calcium D-Pantothenate (Vitamin B5)		
CAS No.	137-08-6		
Batch Number	20211220	Manufacture Date	20211220
Report Date	20211220	Expiry Date	20231219

ITEMS	SPECIFICATIONS	TEST METHOD
Appearance	White Powder	Visual
Identification		
Infrared Absorption	Concordant with the reference spectrum	USP <197K>
Identification Test	Conforms	USP <191>
Specific Optical Rotation	+25.0° ~ +27.5°	USP <781S>
Alkalinity	No pink color is produced within 5 seconds	
Loss on Drying	NMT 5.0%	USP <731>
Heavy Metals	NMT 10ppm	USP <231>
Arsenic	NMT 3ppm	USP <2232>
Cadmium	NMT 2ppm	USP <2232>
Lead	NMT 0.5ppm	USP <2232>
Mercury	NMT 0.1ppm	USP <2232>
Ordinary Impurities	NMT 1.0%	USP <466>
Organic Volatile Impurities	Meets the requirements	GC
Nitrogen Content	5.7% ~ 6.0%	USP <461>
Content of Calcium	8.2% ~ 8.6%	Titration
Total Plate Count	<1000 cfu/g	Titration
Coliforms	<30 MPN/100g	
Salmonella	Negative	
Mold and Yeast	<1000 cfu/g	
Pantothenic Acid	90.0% ~ 93.0%	
Assay (on dried basis)	98.0 ~ 101.0%	Titration

Storage: Store in tight, light-resistant containers, avoid exposure to direct sunlight, moisture and excessive heat.

Shelf Life: 24 months if store under the conditions above and stay in original packaging.

