



Certificate of Analysis

Product Name:	Vitamin B5 (D-calcium Pantothenate)	Batch Number:	Varies
CAS No.	137-08-6	Manufacture Date:	Varies
Molecular Formula:	C ₁₈ H ₃₂ CaN ₂ O	Expiry Date:	Varies

IDENTIFICATION		SPECIFICATION	RESULT
D-calcium Pantothenate (HPLC)		98 - 102%	98.4 - 99.50%
Physical	Appearance	White powder	Complies
	Pantothenic Acid (HPLC)	Report only	90.463%
	Calcium (Ca)	8.2 - 8.6%	8.25 - 8.527%
	Moisture content (LOD)	< 5%	4.05 - 4.17%
	Loss on drying	≤ 5%	3.5 - 4.2%
	Specific Optical Rotation	+25° - +27.5°	+25.98 - +26.7°
	Alkalinity	No pink color is produced within 5 seconds	Complies
	Nitrogen Determination	5.7 - 6%	5.71 - 5.74%
	Ordinary Impurities (TLC)	≤ 1%	Complies
	Methanol Residue (GC)	≤ 0.3%	Complies
Chemical	Heavy metals	≤ 20 ppm	Complies
	Lead (Pb)	≤ 2 ppm	Complies
	Arsenic (As)	≤ 2 ppm	Complies
	Cadmium (Cd)	≤ 1 ppm	Complies
	Mercury (Hg)	≤ 0.1 ppm	Complies
Microbial	Total Plate Count	< 1000 cfu/g	Complies
	Yeast & Mold	< 100 cfu/g	Complies
	Coliforms, E. coli, Salmonella, Staphylococcus, Pseudomonas	Negative	Complies

Else	Storage condition	Sealed, kept in shady and dry place
	Shelf life	Two years

