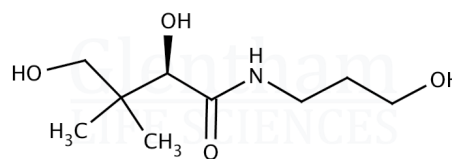


Certificate of Analysis

Product Name	D-Panthenol, EP grade
Glentham Code	GP6885
CAS Number	81-13-0
EINECS	201-327-3
MDL Number	MFCD00065006
Batch Number	023VNH
Molecular Weight	205.26
Molecular Formula	$C_9H_{19}NO_4$
Storage Temp.	+4°C



Property	Specification	Batch 023VNH
Physical Description	Clear, colourless to pale yellow viscous liquid or white to almost white crystalline powder	Clear, colourless viscous liquid
Identification	According to EP	Conforms
Solubility (5% in water)	Clear, colourless solution	Clear, colourless solution
pH (5% in water)	≤ 10.5	10.2
Specific Optical Rotation	+29.0 - +32.0 °	+30.4 °
3-Aminopropanol	≤ 1.0%	Conforms
Heavy Metals	≤ 20ppm	Conforms
Water	≤ 1.0%	0.2%
Residue on Ignition	≤ 0.1%	0.05%
Assay	98.0 - 101.0 %	98.4%
Pharmacopoeia Specification(s)	EP	Conforms

Specification Version	v1.1
Manufacture Date	2023-07-19
Re-Test Date	2030-07-24

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glentham.com or contact us using the details above for the current version of this document.

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