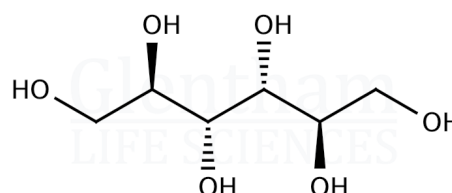


Certificate of Analysis

Product Name D-Mannitol, EP, USP grade
Glentham Code GC1282
CAS Number 69-65-8
EINECS 200-711-8
MDL Number MFCD00064287
PubChem SID 310276023
Batch Number 160VJP

Molecular Weight 182.17
Molecular Formula $C_6H_{14}O_6$
Storage Temp. +20°C



Property	Specification	Batch 160VJP
Physical Description	White or almost white crystalline powder	White crystalline powder
Identification	A, B according to USP	Conforms
Identification	A, C, D according to Ph. Eur.	Conforms
Melting Point	165 - 170 °C	167.4 - 170.0
Solubility (10% in water)	Clear, colourless solution	Clear, colourless solution
Conductivity	≤ 20μS/cm	1.4μS/cm
Reducing Sugars	≤ 0.2% (as glucose)	≤ 0.1%
D-Sorbitol	≤ 2.0%	0.8%
Impurity B	≤ 2.0%	≤ 0.05%
Impurity C	≤ 2.0%	≤ 0.05%
Any Unspecified Impurity	≤ 0.10%	≤ 0.10%
Total Impurities	≤ 2.0%	0.8%
Specific Optical Rotation	According to USP, Ph. Eur.	Conforms
Nickel (Ni)	≤ 1ppm	≤ 1ppm
Arsenic (As)	≤ 1ppm	Conforms
Lead (Pb)	≤ 0.5ppm	Conforms
Heavy Metals (as Pb)	≤ 5ppm	≤ 5ppm
Chloride (Cl)	≤ 70ppm	Conforms
Sulphate (SO ₄)	≤ 100ppm	Conforms
Loss on Drying	≤ 0.30%	0.05%
Assay	98.0 - 102.0 % (anhydrous substance)	99.2%

Specification Version v1.1
Manufacture Date 2020-04-11
Re-Test Date 2027-10-27

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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