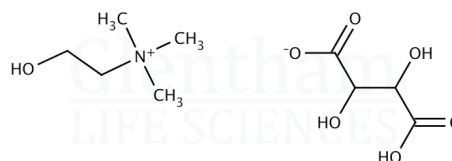


Certificate of Analysis

Product Name Choline bitartrate
Glentham Code GL2853
CAS Number 87-67-2
EINECS 201-763-4
MDL Number MFCD00036332
PubChem SID 310270214
Additional CAS 62-49-7
Batch Number 756WTS

Molecular Weight 253.25
Molecular Formula $C_9H_{19}NO_7$
Storage Temp. +20°C



Property	Specification	Batch 756WTS
Physical Description	White crystalline powder	White crystalline powder
Solubility (10% in water)	Clear to slightly turbid, colourless solution	Slightly turbid, colourless solution
Specific Optical Rotation ($[\alpha]_{20/D}$)	+17.0 - +18.5 ° (c=10, water)	+17.8 °
Melting Point	147.0 - 152.0 °C	149.6 - 151.0 °C
Assay (Titration)	97.5 - 102.5 % (anhydrous basis)	98.1%

Specification Version v1.1
Manufacture Date 2020-03-26
Re-Test Date 2029-08-25

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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