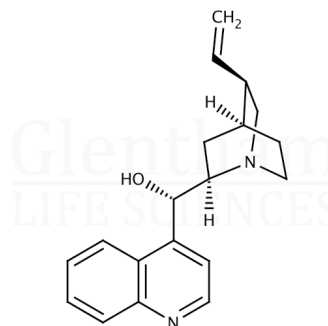


## Certificate of Analysis

Product Name Cinchonine  
Glentham Code GK1431  
CAS Number 118-10-5  
EINECS 204-234-6  
MDL Number MFCD00064372  
PubChem SID 310270267  
Batch Number 585DRG

Molecular Weight 294.39  
Molecular Formula  $C_{19}H_{22}N_2O$   
Storage Temp. +20°C



Property	Specification	Batch 585DRG
Physical Description	White to off-white powder	Off-white powder
Specific Optical Rotation	251 - 269 °	259°
Loss on Drying	≤ 1.0%	0.0%
Other Cinchona Alkaloids	Quinidine and Hydroquinidine: ≤ 3.0%	1.5%
	Quinine and Hydroquinine: ≤ 3.0%	0.0%
Sulphated Ash	≤ 0.1%	Conforms
Heavy Metals	≤ 10ppm	Conforms
Chloride	≤ 0.02%	Conforms
Sulphate	≤ 0.05%	Conforms
Assay	99.0 - 101.0 %	99.8%

Specification Version v1.0  
Manufacture Date 2013-11-26  
Re-Test Date 2029-02-17

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](http://www.glentham.com) or contact us using the details above for the current version of this document.

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