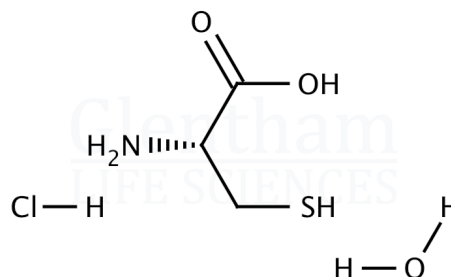


Certificate of Analysis

Product Name	L-Cysteine hydrochloride monohydrate, 99%, non-animal origin
Glentham Code	GM0119
CAS Number	7048-04-6
EINECS	200-157-7
MDL Number	MFCD00065606
Additional CAS	345909-32-2 ($\cdot xH_2O$)
Batch Number	451NDZ
Molecular Weight	175.64
Molecular Formula	$C_3H_7NO_2S \cdot HCl \cdot H_2O$
Storage Temp.	+20°C



Property	Specification	Batch 451NDZ
Physical Description	White or colourless crystals	White crystals
Identification (IR)	To conform to standard	Conforms
Solubility (2.5% in water)	Clear, colourless solution	Clear, colourless solution
Specific Optical Rotation ($[\alpha]_{20/D}$)	5.5 - 7.0 ° (c=8, HCl, dried basis)	+6.6 °
pH	1.5 - 2.0	1.64
Sulphates	≤ 0.02%	Conforms
Ammonium	≤ 0.02%	Conforms
Heavy Metals	≤ 10ppm	Conforms
Any Individual Impurity	≤ 0.5%	Conforms
Total Impurities	≤ 2.0%	Conforms
Residue on Ignition	≤ 0.1%	0.03%
Loss on Drying	8.0 - 12.0 %	10.2%
Assay (Titration)	98.5 - 101.0 %	99.67%
Pharmacopoeia Specification(s)	Ph. Eur., USP	Conforms

Specification Version	v1.0
Manufacture Date	2020-11-08
Re-Test Date	2029-09-02

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.

This document was generated electronically and is therefore valid without signature. © Glentham Life Sciences Ltd, 2024