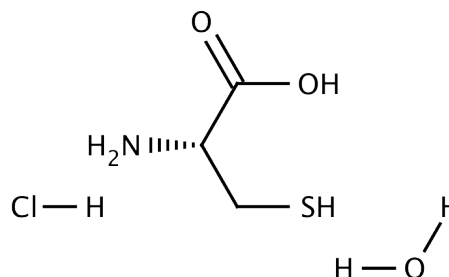


## Product Specification

Product Name	L-Cysteine hydrochloride monohydrate
Glentham Code	GM4222
CAS Number	7048-04-6
EINECS	200-157-7
MDL Number	MFCD00065606
Additional CAS	345909-32-2 ( $\cdot xH_2O$ )
PubChem SID	310270758
Molecular Weight	175.64
Molecular Formula	$C_3H_7NO_2S \cdot HCl \cdot H_2O$
Storage Temp.	+20°C



Property	Specification
Physical Description	White powder
Specific Optical Rotation	+5.5 - +7.0 ° ([ $\alpha$ ] <sub>20/D</sub> )
pH	1.5 - 2.0
Chloride (Cl)	19.89 - 20.29 %
Ammonium (NH <sub>4</sub> )	≤ 0.02%
Sulphate (SO <sub>4</sub> )	≤ 0.02%
Iron (Fe)	≤ 10ppm
Other Amino Acids	Not detectable
Loss on Drying	8.5 - 12.0 %
Residue on Ignition	≤ 0.1%
Lead (Pb)	≤ 3ppm
Arsenic (As)	≤ 1ppm
Mercury (Hg)	≤ 0.1ppm
Cadmium (Cd)	≤ 1ppm
Assay	99.0 - 100.5 %

Specification Version	-	v1.0
Date Created	-	2015-04-21

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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