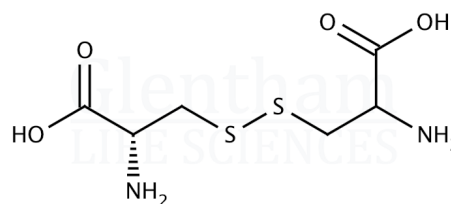


## Certificate of Analysis

Product Name	L-Cystine, non-animal origin
Glentham Code	GM2911
CAS Number	56-89-3
EINECS	200-296-3
MDL Number	MFCD00064228
Batch Number	297KKE
Molecular Weight	240.30
Molecular Formula	$C_6H_{12}N_2O_4S_2$
Storage Temp.	+20°C



Property	Specification	Batch 297KKE
Physical Description	White or almost white crystalline powder	White crystalline powder
Identification	To conform to standard	Conforms
Solubility (5% in 2M HCl)	Clear, colourless solution	Clear, colourless solution
Specific Optical Rotation ( $[\alpha]_{20/D}$ )	-225.0 - -215.0 °	-223.0 °
Chloride (Cl)	≤ 0.02%	Conforms
Ammonium (NH <sub>4</sub> )	≤ 0.02%	Conforms
Sulphate (SO <sub>4</sub> )	≤ 0.02%	Conforms
Arsenic (As)	≤ 1ppm	0.5ppm
Heavy Metals	≤ 10ppm	Conforms
Iron (Fe)	≤ 20ppm	≤ 10ppm
Residue on Ignition	≤ 0.1%	Conforms
Loss on Drying	≤ 1.0%	0.05%
Assay	98.5 - 101.5 %	99.1%
Origin	non-animal	Conforms

Specification Version	v1.0
Manufacture Date	2022-06-07
Re-Test Date	2030-09-23

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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