



## CERTIFICATE OF ANALYSIS

**PRODUCT NAME : L-CYSTEINE HYDROCHLORIDE (MONOHYDRATE)**

<b>CAS No</b>	<b>: 7048-04-6</b>	<b>Product code</b>	<b>: 14040</b>
<b>Mol. Formula</b>	<b>: C<sub>3</sub>H<sub>7</sub>NO<sub>2</sub>S.HCl.H<sub>2</sub>O</b>	<b>Batch No.</b>	<b>: MCR-29324</b>
<b>Mol. WT</b>	<b>: 175.64</b>	<b>Mfd.</b>	<b>: Sept. 2023</b>
<b>Date of analysis</b>	<b>: 18/09/23</b>	<b>Exp.</b>	<b>: Aug. 2028</b>

S.R	Test	Specification	Observation
1	<b>Description</b>	White to Colourless crystalline powder.	White crystalline powder.
2	<b>Assay (On dried basis)</b>	99% w/w min	99.84%
3	<b>Specific rotation <math>[\alpha]^{20}_D</math> C = 2, 5 N HCl</b>	+ 5.5 to + 6.5 <sup>0</sup>	+ 6.25 <sup>0</sup>
4	<b>Loss on drying at 130°C</b>	9.0 - 11.5%	11.25%
5	<b>Sulphated ash</b>	0.1% max	0.08%
6	<b>Sulphate (SO<sub>4</sub>)</b>	0.01% max	<0.01%
7	<b>Iron (Fe)</b>	0.001% max	<0.001%
8	<b>Heavy metals (Pb)</b>	0.001% max	<0.001%

**REMARK:** THE PRODUCT COMPLIES WITH THE ABOVE SPECIFICATIONS

**[Tested By]**

**[QC Incharge]**

**CHEMIST  
(Asmita)**

**HEAD-QUALITY ASSURANCE  
(G.G.Salian)**

**Note:** Computer generated image requires no sign.

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