



## **CERTIFICATE OF ANALYSIS**

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek. Certificate

Number. 2317548

Catalogue Number 41173 Lot Number A0475029

Description L-Histidine hydrochloride monohydrate,98%

CAS Number 5934-29-2
Quality Test/Release Date 05/Aug/2025
Suggested retest date 05/Aug/2030
Country of Origin CHINA
Declaration of Origin plant

BSE/TSE The product is made by fermentation of vegetable raw materials

| Result Name               | Units | Specifications                  | Test Value                      |
|---------------------------|-------|---------------------------------|---------------------------------|
| Appearance (Color)        |       | White                           | White                           |
| Appearance (Form)         |       | Crystalline powder or crystals  | Crystalline powder              |
| Infrared spectrum         |       | Conforms                        | Conforms                        |
| Titration with NaOH       | %     | >=97.5 (On anhydrous substance) | 99.7 (On anhydrous substance)   |
| Heavy metals (as Pb)      | ppm   | =<10                            | =<10                            |
| Sulfated ash              | %     | =<0.1                           | 0.08                            |
| Other amino acids         | %     | =<0.5 (TLC)                     | =<0.2 (TLC)                     |
| Specific optical rotation |       | +9.2° to +10.6° (20°C, 589 nm)  | +9.4° (20°C, 589 nm) (c=11, 6 N |
|                           |       | (c=11, 6 N HCI)                 | HCI)                            |
| Specific optical rotation |       | On anhydrous substance          | On anhydrous substance          |
| Loss on drying            | %     | 7 to 10 (3 h) (145 to 150°C)    | 8.5 (3 h) (145 to 150°C)        |
| Sulfate (SO4)             | ppm   | =<300                           | =<200                           |
| Ammonium (NH4)            | ppm   | =<200                           | =<200                           |
| Iron (Fe)                 | ppm   | =<10                            | =<10                            |
| pH                        |       | 3 to 5 (2.5 % at 25°C)          | 3.8 (2.5 % at 25°C)             |

Geert Torfs

Supervisor, QC

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.