

Product Specification

Product Name L-Cysteine Hydrochloride Monohydrate

Compendia USP/EP CAS# 7048-04-6

Formula $C_3H_7NO_2S \bullet HCl \bullet H_2O$

Molecular Weight 175.63

White crystals or crystalline powder; Description

characteristic odor and a strong acid taste

Solubility Very soluble in water, and soluble in ethanol (99.5).

It dissolves in 6 mol/L hydrochloric acid TS.

Identification Compare the infrared absorption spectrum of the sample

with that of the standard by potassium bromide disc method.

H_nN,

H-CI

 H_2O

HO'

Specification Test

Specific Rotation @20°C +6.1 to +7.8° [Sample calculated on the

dried basis, C=8, 1 mol/L HCl]

Specific Rotation @20°C +6.0 to +7.1° [Sample calculated on the

dried basis, C=8, 6 mol/L HCll

Clear and colorless; Not less than 98.0% State of Solution

19.89 to 20.29% Chloride (Cl) Ammonium (NH₄) Not more than 0.02% Sulfate (SO₄) Not more than 0.020% Iron (Fe) Not more than 10ppm Heavy Metals (Pb) Not more than 10ppm

Arsenic (As₂O₃) Not more than 1ppm

Related Substances 1) Conforms

> 2) Not more than 0.5% of L-Cystine; Not more than 0.2% of each impurity; Not more than 1.0% of total impurities

8.50 to 12.00% Loss on drying

Residue on ignition (Sulfated) Not more than 0.10%

Assay 98.5 to 101.0% pН 1.5 to 2.0

Endotoxin Less than 24.0 EU/q