Date of issue: 1st October, 2007
Date of revision: 9th August, 2018

SAFETY DATA SHEET

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Identification of the substance: L-Cysteine Hydrochloride Anhydrous

1.2. Uses of the substance:

1.3. Details of the supplier of the safety data sheet:

Name of manufacture/supplier: Nippon Protein Co., Ltd.
Address: 575-1, Shimada-Cho, Ashikaga-Shi, Tochigi-Ken 326-0337, Japan
Telephone number: +81-0284-73-0111
Fax number: +81-0284-73-0753

1.4. Emergency telephone number: +81-0284-73-0111

Section 2: Hazards identification

2.1. Classification of the substance

Physical Hazards: Classification not possible
Health Hazards Classification not possible
Environmental Hazards: Classification not possible

2.2. Label Elements Not applicable

2.3. Other hazards: Irritating to mucous membranes, eyes and skin.
Will increase the biological oxygen demand (BOD) of water.

Section 3: Composition/ information on ingredients

3.1. Substance

Common Chemical name: L-Cysteine Hydrochloride Anhydrous
Synonyms: (R)-2-Amino-3-mercaptopropionic acid monohydrochloride
Formula: $C_3H_7NO_2S$ HCI
Molecular Weight: 157.62
Composition 98.0 - 102.0%
CAS No.: 52-89-1

Section 4: First aid measures

4.1. Description of first aid measures

Remove contaminated clothing.
Upon eye or skin contact, flush affected area with copious quantities of water.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available

Section 5: Firefighting measures

5.1. Extinguishing media:

Water

5.2. Specific hazard arising from the substance or mixture

Flash point (method used): Not known
Flammable limits: Not known
Special fire fighting procedures: None
Unusual fire and explosion hazards: None

5.3. Advice for firefighters

No information available

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Vacuum or sweep up spillage, avoid dust.
Wash contaminated clothing, ventilate area and wash spill site before reuse.

6.2. Environmental precautions

No information available

6.3. Methods and material for containment and cleaning up

No information available

6.4. Reference to other sections

Personal protection: see section8

Section 7: Handling and storage

7.1. Precautions for safe handling

Appropriate laboratory apparel, protect exposed skin.

7.2. Conditions for safe storage, including any incompatibilities

Store in suitable containers to avoid humidity and high temperature.

Section 8: Exposure controls/ personal protection

8.1. Control parameters

Occupational Exposure Limits: Not specified

8.2. Exposure controls

Respiratory protection: an appropriate respirator.
Protective gloves: Rubber
Eye protection: Safety goggles
Other protective equipment: Appropriate laboratory apparel, protect exposed skin.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: White crystals or crystalline powder
Melting point: 175 - 178℃
Solubility: About 102g/100g H_2O (20°C)
pH: 1.5 to 2.0(1.0g in 100ml of H_2O)

Section 10: Stability and reactivity

10.1. Reactivity

See section10.4.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

None especially

10.4. Conditions to avoid

Avoid humidity and high temperature.

10.5. Incompatibility materials

None especially

10.6. Hazardous decomposition products

None especially

Section 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:	LD_{50}:2g/kg rat (for L-Cysteine)
Mutagenicity:	No data available
Sensitization:	No data available
Primary skin irritation:	May cause skin irritation. No specific data available
Primary eye irritation:	May cause eye irritation. No specific data available

Section 12: Ecological information

12.1. Toxicity

No data available

12.2 .Persistence and degradability

BOD = 0.93 g/g (for L-Cysteine)

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

No information available

Section 13: Disposal consideration

13.1. Waste treatment methods

Dispose of waste in accordance with all applicable federal, State and local laws.

Section 14: Transport information

14.1.-14.5 Not classified as dangerous in meaning of transport regulations

14.6. Special precautions for users

Avoid humidity and high temperature.

Prevent to damage a container.

Appropriate laboratory apparel, protect exposed skin.

14.7 Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC code.

Section 15: Regulatory information

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

None especially.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

Section 16: Other information

The information contained in this MSDS is, to the best of our knowledge true and accurate. Any recommendations or suggestions made are without guarantee, since the conditions of use are beyond our control.