1. **IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

1.1 **Product identifiers**
- **Product name**: L-Histidine monohydrochloride monohydrate
- **Product Number**: 53369
- **Brand**: Sigma
- **CAS-No.**: 5934-29-2

1.2 **Relevant identified uses of the substance or mixture and uses advised against**
- **Identified uses**: Laboratory chemicals, Manufacture of substances

1.3 **Details of the supplier of the safety data sheet**
- **Company**: Sigma-Aldrich Chemie BV
  - Stationsplein 4
  - 3331 LL ZWIJNDRECHT
  - NETHERLANDS
- **Telephone**: +31 78-620-5411
- **Fax**: +31 78-620-5421
- **E-mail address**: eurtechserv@sial.com

1.4 **Emergency telephone number**
- **Emergency Phone #**: 112

2. **HAZARDS IDENTIFICATION**

2.1 **Classification of the substance or mixture**
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008
This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 **Label elements**
- Caution - substance not yet tested completely.

2.3 **Other hazards** - none

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 **Substances**
- **Synonyms**: L-α-Amino-β-(4-imidazolyl)propionic acid monohydrochloride
- **Formula**: C₆H₉N₃O₂ · HCl · H₂O
- **Molecular Weight**: 209,63 g/mol

4. **FIRST AID MEASURES**

4.1 **Description of first aid measures**
- **If inhaled**: If breathed in, move person into fresh air. If not breathing, give artificial respiration.
- **In case of skin contact**: Wash off with soap and plenty of water.
In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed
no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses
no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls
Appropriate engineering controls
General industrial hygiene practice.
Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: crystalline
   Colour: colourless

b) Odour
   no data available

c) Odour Threshold
   no data available

d) pH
   3.0 - 4 at 105 g/l at 25 °C

e) Melting point/freezing point
   Melting point/range: 254 °C - dec.

f) Initial boiling point and boiling range
   no data available

g) Flash point
   no data available

h) Evaporation rate
   no data available

i) Flammability (solid, gas)
   no data available

j) Upper/lower flammability or explosive limits
   no data available

k) Vapour pressure
   no data available

l) Vapour density
   no data available

m) Relative density
   no data available

n) Water solubility
   105 g/l at 20 °C - completely soluble

o) Partition coefficient: n-octanol/water
   no data available

p) Autoignition temperature
   no data available

q) Decomposition temperature
   no data available

r) Viscosity
   no data available

s) Explosive properties
   no data available
t) Oxidizing properties    no data available

9.2 Other safety information    no data available

10. STABILITY AND REACTIVITY
10.1 Reactivity    no data available
10.2 Chemical stability    no data available
10.3 Possibility of hazardous reactions    no data available
10.4 Conditions to avoid    no data available
10.5 Incompatible materials
   Strong oxidizing agents
10.6 Hazardous decomposition products
   Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION
11.1 Information on toxicological effects
   Acute toxicity
   LD50 Intraperitoneal - mouse - > 1.677 mg/kg
   Skin corrosion/irritation    no data available
   Serious eye damage/eye irritation    no data available
   Respiratory or skin sensitization    no data available
   Germ cell mutagenicity    no data available
   Carcinogenicity
   IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
   Reproductive toxicity    no data available
   Specific target organ toxicity - single exposure    no data available
   Specific target organ toxicity - repeated exposure    no data available
   Aspiration hazard    no data available
   Potential health effects
   Inhalation    May be harmful if inhaled. May cause respiratory tract irritation.
   Ingestion    May be harmful if swallowed.
   Skin    May be harmful if absorbed through skin. May cause skin irritation.
   Eyes    May cause eye irritation.

   Signs and Symptoms of Exposure
   To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
12. ECOLOGICAL INFORMATION
12.1 Toxicity
no data available
12.2 Persistence and degradability
no data available
12.3 Bioaccumulative potential
no data available
12.4 Mobility in soil
no data available
12.5 Results of PBT and vPvB assessment
no data available
12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION
14.1 UN number
ADR/RID: - IMDG: - IATA: -
14.2 UN proper shipping name
ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -
14.4 Packaging group
ADR/RID: - IMDG: - IATA: -
14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available
15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION
Further information
Copyright 2012 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.