



Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
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All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. And Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

L-(+)-Histidine

1. Product Identification

Synonyms: (alpha)-Amino-4-imidazole Propionic Acid; Glyoxaline-5-alanine

CAS No.: 71-00-1

Molecular Weight: 155.16

Chemical Formula: [*]NHC(=O)Nc1c[nH]c1C(=O)O

Product Codes: 2080, N327

2. Composition/Information on Ingredients

| Ingredient | CAS No | Percent | Hazardous |
|-----------------|---------|-----------|-----------|
| L-(+)-Histidine | 71-00-1 | 90 - 100% | Yes |

3. Hazards Identification

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 0 - None

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 0 - None

Lab Protective Equip: GOGGLES; LAB COAT

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:

No information found.

Ingestion:

No information found.

Skin Contact:

No information found.

Eye Contact:

No information found.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

If a person breathes in large amounts, move the exposed person to fresh air.

Ingestion:

If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

In case of contact, immediately wash skin with plenty of soap and water for at least 15 minutes.

Eye Contact:

In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

5. Fire Fighting Measures

Fire:

Not expected to be a fire hazard.

Explosion:

No information found.

Fire Extinguishing Media:

Use extinguishing media appropriate for surrounding fire.

Special Information:

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

6. Accidental Release Measures

Wear suitable protective clothing. Carefully sweep up and remove.

7. Handling and Storage

Keep container tightly closed. Suitable for any general chemical storage area. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to the substance is apparent and engineering controls are not feasible, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

White Crystalline solid.

Odor:

Odorless.

Solubility:

Moderate (1-10%)

Specific Gravity:

1.44

pH:

No information found.

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

No information found.

Melting Point:

267C (513F)

Vapor Density (Air=1):

Not applicable.

Vapor Pressure (mm Hg):
Not applicable.
Evaporation Rate (BuAc=1):
No information found.

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
Oxides of nitrogen, carbon monoxide, carbon dioxide.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
No information found.
Conditions to Avoid:
No information found.

11. Toxicological Information

| -----\Cancer Lists\----- | | | |
|---------------------------|----------------------|-------------|---------------|
| Ingredient | ---NTP Carcinogen--- | | IARC Category |
| | Known | Anticipated | |
| L-(+)-Histidine (71-00-1) | No | No | None |

12. Ecological Information

Environmental Fate:
No information found.
Environmental Toxicity:
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

| -----\Chemical Inventory Status - Part 1\----- | | | | |
|--|------|-----|-------|-----------|
| Ingredient | TSCA | EC | Japan | Australia |
| L-(+)-Histidine (71-00-1) | Yes | Yes | Yes | Yes |

| -----\Chemical Inventory Status - Part 2\----- | | | | |
|--|--------------|-----|------|-------|
| Ingredient | ---Canada--- | | | |
| | Korea | DSL | NDSL | Phil. |
| L-(+)-Histidine (71-00-1) | Yes | Yes | No | Yes |

| -----\Federal, State & International Regulations - Part 1\----- | | | | |
|---|------------|-----|------------|----------------|
| Ingredient | -SARA 302- | | -SARA 313- | |
| | RQ | TPQ | List | Chemical Catg. |
| L-(+)-Histidine (71-00-1) | No | No | No | No |

| -----\Federal, State & International Regulations - Part 2\----- | | | |
|---|--------|--------|--------|
| Ingredient | CERCLA | -RCRA- | -TSCA- |
| | | 261.33 | 8(d) |
| L-(+)-Histidine (71-00-1) | No | No | No |

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: No Chronic: No Fire: No Pressure: No

Reactivity: No (Pure / Solid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 0 Flammability: 0 Reactivity: 0

Label Hazard Warning:

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Label Precautions:

During use avoid contact with eyes, skin, clothing. Wash thoroughly after handling. When not in use keep in tightly closed container.

Label First Aid:

Not applicable.

Product Use:

Laboratory Reagent.

Revision Information:

No Changes.

Disclaimer:

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