according to Regulation (EC) No 1907/2006

H-Lys(Z)-OH

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# SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

H-Lys(Z)-OH

CAS No:

1155-64-2

# 1.2. Relevant identified uses of the substance or mixture and uses advised against

### Use of the substance/mixture

Laboratory chemicals

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

# **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

# Regulation (EC) No. 1272/2008

This substance is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

# 2.2. Label elements

## Hazard components for labelling

# **SECTION 3: Composition/information on ingredients**

### 3.1. Substances

| Sum formula:      | C14H20N2O4 |
|-------------------|------------|
| Molecular weight: | 280.32     |

# **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

#### **General information**

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

#### After contact with skin

Rinse cautiously with water for several minutes. If medical advice is needed, have product container or label at hand.

#### After contact with eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### After ingestion

IF SWALLOWED: rinse mouth. Never give anything by mouth to an unconscious person or a person with cramps. Get medical advice/attention if you feel unwell.

# 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

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# Suitable extinguishing media

Dry extinguishing powder

Unsuitable extinguishing media No information available.

# 5.2. Special hazards arising from the substance or mixture

Carbon monoxide Carbon dioxide (CO2) Nitrogen oxides (NOx) Sulphur dioxide (SO2)

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

## Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes and clothes. Do not breathe dust/fume/gas/mist/vapours/spray. Remove persons to safety.

# 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains.

### 6.3. Methods and material for containment and cleaning up

Collect spillage. Avoid dust formation.

# 6.4. Reference to other sections

Safe handling: see section 7 Disposal: see section 13

# **SECTION 7: Handling and storage**

# 7.1. Precautions for safe handling

## Advice on safe handling

Provide adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes and clothes. Do not breathe dust/fume/gas/mist/vapours/spray. Keep container tightly closed and dry.

### Advice on protection against fire and explosion

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### Further information on handling

No information available.

#### 7.2. Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Recommended storage temperature: at room temperature

# Advice on storage compatibility

Do not store together with: Food and feedingstuffs

#### Further information on storage conditions

Protect against: Frost Heat Humidity

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

### Additional advice on limit values

To date, no national critical limit values exist.

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## 8.2. Exposure controls

### Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

# Protective and hygiene measures

Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink or smoke.

#### Eye/face protection

Suitable eye protection: Eye glasses with side protection goggles

# Hand protection

Wear protective gloves.

Suitable material: NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Skin protection

Protective clothing

#### **Respiratory protection**

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.:

Self-contained respirator (breathing apparatus) (DIN EN 133) Combination filtering device (EN 14387)

# Environmental exposure controls

Avoid release to the environment.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

| Physical state:                           | solid                              |                   |
|---|------------------------------------|-------------------|
| Colour:                                   | white                              |                   |
| Odour:                                    | This information is not available. |                   |
| pH-Value:                                 |                                    | No data available |
| Changes in the physical state             |                                    |                   |
| Melting point:                            |                                    | No data available |
| Initial boiling point and boiling range:  |                                    | No data available |
| Sublimation point:                        |                                    | No data available |
| Softening point:                          |                                    | No data available |
| Flash point:                              |                                    | No data available |
| Sustaining combustion:                    |                                    | No data available |
| Explosive properties<br>No data available |                                    |                   |
| Lower explosion limits:                   |                                    | No data available |
| Upper explosion limits:                   |                                    | No data available |
| Ignition temperature:                     |                                    | No data available |
| Decomposition temperature:                |                                    | No data available |
|   |                                    |                   |

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| Oxidizing properties<br>No data available |                       |             |  |  |
| Vapour pressure:                          | No data available     |             |  |  |
| Density:                                  | No data available     |             |  |  |
| Bulk density:                             | No data available     |             |  |  |
|   |                       |             |  |  |

| Water solubility:      |
|------------------------|
| Partition coefficient: |
| Viscosity / dynamic:   |
| Viscosity / kinematic: |
| Vapour density:        |

# No data available No data available

No data available

# Solvent content: 9.2. Other information

Evaporation rate:

No data available

# **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

# 10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

# 10.3. Possibility of hazardous reactions

No data available

### 10.4. Conditions to avoid

No data available

# 10.5. Incompatible materials

No data available

# 10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

## **Further information**

No data available

# **SECTION 11: Toxicological information**

# 11.1. Information on toxicological effects

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### Irritation and corrosivity

Based on available data, the classification criteria are not met.

## Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

## STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

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### Aspiration hazard

Based on available data, the classification criteria are not met.

## **SECTION 12: Ecological information**

# 12.1. Toxicity

# The product has not been tested.

12.2. Persistence and degradability

The product has not been tested.

## 12.3. Bioaccumulative potential

The product has not been tested.

# 12.4. Mobility in soil

The product has not been tested.

# 12.5. Results of PBT and vPvB assessment

The product has not been tested.

# 12.6. Other adverse effects

No information available.

# **Further information**

Avoid release to the environment.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

# Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

# Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

# **SECTION 14: Transport information**

#### Land transport (ADR/RID)

| <u>14.1. UN number:</u>           | No dangerous good in sense of this transport regulation. |  |  |  |
|-----------------------------------|--|--|--|--|
| 14.2. UN proper shipping name:    | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.4. Packing group:              | No dangerous good in sense of this transport regulation. |  |  |  |
| Inland waterways transport (ADN)  |  |  |  |  |
| <u>14.1. UN number:</u>           | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.2. UN proper shipping name:    | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.4. Packing group:              | No dangerous good in sense of this transport regulation. |  |  |  |
| Marine transport (IMDG)           |  |  |  |  |
| 14.1. UN number:                  | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.2. UN proper shipping name:    | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.4. Packing group:              | No dangerous good in sense of this transport regulation. |  |  |  |
| Air transport (ICAO-TI/IATA-DGR)  |  |  |  |  |
| <u>14.1. UN number:</u>           | No dangerous good in sense of this transport regulation. |  |  |  |
| 14.2. UN proper shipping name:    | No dangerous good in sense of this transport regulation. |  |  |  |
|                                   |  |  |  |  |

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|   | according to Regulation (EC) No 1907/2006                                   |              |  |
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| 14.3. Transport hazard class(es):   | No dangerous good in sense of this transport regulation.                    |              |  |
| 14.4. Packing group:  | No dangerous good in sense of this transport regulation.                    |              |  |
| 14.5. Environmental hazards   |   |              |  |
| ENVIRONMENTALLY HAZARDOUS:  | no  |              |  |
| 14.6. Special precautions for user  |   |              |  |
| No dangerous good in sense of this  | transport regulation.   |              |  |
| 14.7. Transport in bulk according to Ann  |   |              |  |
| No dangerous good in sense of this  | transport regulation.   |              |  |
| SECTION 15: Regulatory information  |   |              |  |
| 15.1. Safety, health and environmental re   | gulations/legislation specific for the substance or mixture                 |              |  |
| National regulatory information   |   |              |  |
|   |   |              |  |
| 15.2. Chemical safety assessment  |   |              |  |
| For this substance a chemical safet   | y assessment has not been carried out.                                      |              |  |
| SECTION 16: Other information   |   |              |  |
| Abbreviations and acronyms  |   |              |  |
| -   | port des marchandises dangereuses par Route                                 |              |  |
| (European Agreement concerning the International Carriage of Dangerous Goods by Road)         |   |              |  |
|   | nat le transport des marchandises dangereuses par chemin de fer             |              |  |
| (Regulations Concerning the International Transport of Dangerous Goods by Rail)               |   |              |  |
| IMDG: International Maritime Code for Dangerous Goods   |   |              |  |
| IATA: International Air Transport As  |   |              |  |
| IATA-DGR: Dangerous Goods Refulations by the "International Air Transport Association" (IATA) |   |              |  |
| ICAO: International Civil Aviation Organization   |   |              |  |
| ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)     |   |              |  |
|   | CAS: Chemical Abstracts Service (division of the American Chemical Society) |              |  |
| GHS: Globally Harmonized System of Classification and Labelling of Chemicals                  |   |              |  |
|   | _abelling and Packaging of Substances and Mixtures                          |              |  |
| ATE: Acute toxic estimate   |   |              |  |
| LC50: Lethal concentration, 50 percent  | cent  |              |  |
| LD50: Lethal dose, 50 percent   |   |              |  |
| EC50: Effectice concentration, 50 p   | ercent  |              |  |
| DNEL: Derived No Effect Level   |   |              |  |
| PNEC: Predicted No Effect Concen  |   |              |  |
| PBT: Persistent, Bioaccumulative and Toxic  |   |              |  |
| vPvB: very Persistent and very Bioaccumulative  |   |              |  |
| Further Information   |   |              |  |
|   |   |              |  |

### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.