

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/11/2022

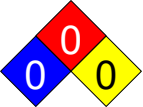
Reviewed on 05/11/2022

1 Identification

- **Product identifier**
- **Trade name:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Article number:** 19320-B, 19321-B
- **CAS Number:**
7732-18-5
- **EC number:**
231-791-2
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
The substance is not classified, according to the Globally Harmonized System (GHS).

 - **Label elements**
 - **GHS label elements** Void
 - **Hazard pictograms** Void
 - **Signal word** Void
 - **Hazard statements** Void
 - **Classification system:**
 - **NFPA ratings (scale 0 - 4)**
- 

Health = 0

Fire = 0

Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**
- | | | |
|------------|---|----------------|
| HEALTH | 0 | Health = 0 |
| FIRE | 0 | Fire = 0 |
| REACTIVITY | 0 | Reactivity = 0 |
- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

US

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 1)

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
7732-18-5 Deionized Water, Reagent Grade A.C.S.
- **Identification number(s)**
- **EC number: 231-791-2**

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

None of the ingredients is listed.

· **PAC-2:**

None of the ingredients is listed.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 2)

· PAC-3:

None of the ingredients is listed.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
No special measures required.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** *No special measures required.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *No special requirements.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *None.*
- **Specific end use(s)** *No further relevant information available.*

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** *No further data; see item 7.*
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** *Not required.*
- **Additional information:** *The lists that were valid during the creation were used as basis.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 3)

· **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Characteristic
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not flammable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

· **Density at 20 °C (68 °F):** 1.00016 g/cm³ (8.34634 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic at 20 °C (68 °F):	0.952 mPas
Kinematic:	Not determined.
Water:	99.9 %
VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gal

Solids content: 0.1 %

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

(Contd. on page 5)

Safety Data Sheet

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Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 4)

- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The substance is not subject to classification.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 6)

Safety Data Sheet

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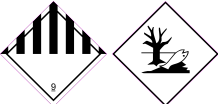
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Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 5)

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR · IMDG, IATA 	<p style="margin: 0;">Void</p> <p style="margin: 0;">UN3082</p>
<ul style="list-style-type: none"> · UN proper shipping name · DOT, ADR · IMDG · IATA 	<p style="margin: 0;">Void</p> <p style="margin: 0;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT</p> <p style="margin: 0;">ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADR, ADN · Class 	<p style="margin: 0;">Void</p>
<ul style="list-style-type: none"> · IMDG, IATA <div style="text-align: center; margin: 10px 0;">  </div>	<ul style="list-style-type: none"> · Class · Label <p style="margin: 0;">9 Miscellaneous dangerous substances and articles</p> <p style="margin: 0;">9</p>
<ul style="list-style-type: none"> · Packing group · DOT, ADR · IMDG, IATA 	<p style="margin: 0;">Void</p> <p style="margin: 0;">III</p>
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (IATA): 	<p style="margin: 0;">Symbol (fish and tree)</p> <p style="margin: 0;">Symbol (fish and tree)</p>
<ul style="list-style-type: none"> · Special precautions for user · EMS Number: 	<p style="margin: 0;">Not applicable.</p> <p style="margin: 0;">F-A, S-</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p style="margin: 0;">Not applicable.</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p style="margin: 0;">Void</p>

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 6)

· **TSCA (Toxic Substances Control Act):**

ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Contact:**

· **Date of preparation / last revision** 05/11/2022 / -

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety **Health**

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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1 Identification

- **Product identifier**
- **Trade name:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Article number:** 19320-B, 19321-B
- **CAS Number:**
7732-18-5
- **EC number:**
231-791-2
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- ProSciTech Pty Ltd
11 Carlton Street, Kirwan QLD 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Website: ems.proscitech.com
- Emgrid Australia Pty. Ltd.
P.O. Box 118
The Patch VIC 3792
Australia
Tel: 03 9752 1785
Fax: 03 9752 1784
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) Identification

- **Classification of the substance or mixture**
The substance is not classified, according to the Globally Harmonised System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

AU

(Contd. on page 2)

Safety Data Sheet

according to WHS Regulations

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 1)

3 Composition and Information on Ingredients

- **Chemical characterisation: Substances**
- **CAS No. Description**
7732-18-5 Deionized Water, Reagent Grade A.C.S.
- **Identification number(s)**
- **EC number: 231-791-2**

4 First Aid Measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**
No special measures required.

(Contd. on page 3)

Safety Data Sheet according to WHS Regulations

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 2)

- Ensure good ventilation/exhaustion at the workplace.
- Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling

9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
- **Form:** Liquid
- **Colour:** Colourless
- **Odour:** Characteristic

(Contd. on page 4)

AU

Safety Data Sheet according to WHS Regulations

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 3)

· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition Melting point/freezing point:	0 °C
Initial boiling point and boiling range:	100 °C
· Flash point:	Not applicable.
· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.00016 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	0.952 mPas
Kinematic:	Not determined.
Water:	99.9 %
VOC (EC)	0.00 %
Solids content:	0.1 %
· Other information	No further relevant information available.

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

AU

(Contd. on page 5)

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(Contd. of page 4)

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **Additional toxicological information:**
 When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
 The substance is not subject to classification according to the latest version of the EU lists.

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- | | |
|----------------------------------|--|
| · UN-Number | |
| · ADG | not regulated |
| · IMDG, IATA | UN3082 |
| · UN proper shipping name | |
| · ADG | not regulated |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S., MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. |

(Contd. on page 6)

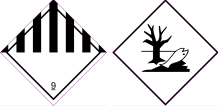
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(Contd. of page 5)

· Transport hazard class(es)	
· ADG, ADN	
· Class	not regulated
· IMDG, IATA	
	
· Class	9 Miscellaneous dangerous substances and articles.
· Label	9
· Packing group	
· ADG	not regulated
· IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Not applicable.
· EMS Number:	F-A, S-
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

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

· **Australian Inventory of Industrial Chemicals**

All ingredients are listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** Substance is not listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 7)

Safety Data Sheet
according to WHS Regulations

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(Contd. of page 6)

· Contact:**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

AU

Safety Data Sheet

according to HPR, Schedule 1

Printing date 05/11/2022

Reviewed on 05/11/2022

1 Identification

- **Product identifier**
- **Trade name:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Article number:** 19320-B, 19321-B
- **CAS Number:**
7732-18-5
- **EC number:**
231-791-2
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard identification

- **Classification of the substance or mixture**
The substance is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

3 Composition/Information on ingredients

- **Chemical characterization:** Substances
- **CAS No. Description**
7732-18-5 Deionized Water, Reagent Grade A.C.S.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 1)

- **Identification number(s)**
- **EC number:** 231-791-2

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
No special measures required.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 2)

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
 - **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
- **Form:** Liquid
- **Color:** Colorless
- **Odor:** Characteristic
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.

(Contd. on page 4)

Safety Data Sheet according to HPR, Schedule 1

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 3)

· Change in condition	
Melting point/Melting range:	0 °C
Boiling point/Boiling range:	100 °C
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not flammable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.00016 g/cm ³
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic at 20 °C:	0.952 mPas
Kinematic:	Not determined.
Water:	99.9 %
Solids content:	0.1 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

(Contd. on page 5)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 4)

· **Additional toxicological information:**

*When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The substance is not subject to classification.*

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** *No further relevant information available.*

· **Persistence and degradability:** *No further relevant information available.*

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** *No further relevant information available.*

· **Mobility in soil:** *No further relevant information available.*

· **Additional ecological information:**

· **General notes:** *Not hazardous for water.*

· **Results of PBT and vPvB assessment**

· **PBT:** *Not applicable.*

· **vPvB:** *Not applicable.*

· **Other adverse effects:** *No further relevant information available.*

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:** *Smaller quantities can be disposed of with household waste.*

· **Uncleaned packagings:**

· **Recommendation:** *Disposal must be made according to official regulations.*

· **Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

14 Transport information

· **UN-Number**

· **DOT/TDG, ADR**

· **IMDG, IATA**

Void

UN3082

· **UN proper shipping name**

· **DOT/TDG, ADR**

· **IMDG**

Void

*ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S., MARINE POLLUTANT*

· **IATA**

*ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.*

(Contd. on page 6)

CA

Safety Data Sheet


according to HPR, Schedule 1

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 5)

· Transport hazard class(es)	
· DOT, ADR, ADN	
· Class	Void
· IMDG, IATA	
	
· Class	9 Miscellaneous dangerous substances and articles
· Label	9
· Packing group	
· DOT/TDG, ADR	Void
· IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Not applicable.
· EMS Number:	F-A, S-
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	Void

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

ACTIVE

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

7732-18-5 | Deionized Water, Reagent Grade A.C.S.

· **Canadian Non-Domestic Substances List (NDSL)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

(Contd. on page 7)

CA

Safety Data Sheet
according to HPR, Schedule 1

Printing date 05/11/2022

Reviewed on 05/11/2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 6)

- **Signal word** *Void*
- **Hazard statements** *Void*
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Contact:**
- **Date of the latest revision of the safety data sheet** 05/11/2022 / -
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods*
 - DOT: US Department of Transportation*
 - IATA: International Air Transport Association*
 - EINECS: European Inventory of Existing Commercial Chemical Substances*
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)*
 - NFPA: National Fire Protection Association (USA)*
 - HMIS: Hazardous Materials Identification System (USA)*
 - PBT: Persistent, Bioaccumulative and Toxic*
 - vPvB: very Persistent and very Bioaccumulative*

CA

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

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

- **Product identifier**
- **Trade name:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Article number:** 19320-B, 19321-B
- **CAS Number:**
7732-18-5
- **EC number:**
231-791-2
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazards identification

- **Classification of the substance or mixture**
Acute Tox. 5 H313 May be harmful in contact with skin.
- **Label elements**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms** Void
- **Signal word** Warning
- **Hazard statements**
May be harmful in contact with skin.
- **Precautionary statements**
Call a POISON CENTER/doctor if you feel unwell.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterisation:** Substances
- **CAS No. Description**
7732-18-5 Deionized Water, Reagent Grade A.C.S.
- **Identification number(s)**
- **EC number:** 231-791-2

IL

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 1)

4 First aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
No special measures required.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 2)

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point:	0 °C
Initial boiling point and boiling range:	100 °C

· **Flash point:** Not applicable.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 3)

· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.00016 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	0.952 mPas
Kinematic:	Not determined.
Water:	99.9 %
VOC (EC)	0.00 %
Solids content:	0.1 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 4)

The substance is not subject to classification according to the latest version of the EU lists.

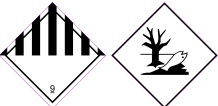
12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- | | |
|-------------------------------------|---|
| · UN-Number | |
| · ADR | not regulated |
| · IMDG, IATA | UN3082 |
| · UN proper shipping name | |
| · ADR | not regulated |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S., MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. |
| · Transport hazard class(es) | |
| · ADR, ADN | |
| · Class | not regulated |
| · IMDG, IATA | |
| |  |
| · Class | 9 Miscellaneous dangerous substances and articles. |
| · Label | 9 |

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 5)

· Packing group	
· ADR	not regulated
· IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Not applicable.
· EMS Number:	F-A, S-
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms** Void
- **Signal word** Warning
- **Hazard statements**
May be harmful in contact with skin.
- **Precautionary statements**
Call a POISON CENTER/doctor if you feel unwell.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Contact:**
- **Abbreviations and acronyms:**
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 5: Acute toxicity – Category 5

IL

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

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

- **1.1 Product identifier**
- **Trade name:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Article number:** 19320-B, 19321-B
- **CAS Number:**
7732-18-5
- **EC number:**
231-791-2
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
7732-18-5 Deionized Water, Reagent Grade A.C.S.
- **Identification number(s)**
- **EC number:** 231-791-2

GB

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 1)

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

No special measures required.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

· 5.3 Advice for firefighters

· **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.

· **6.2 Environmental precautions:** Dilute with plenty of water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

No special measures required.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about fire - and explosion protection:** No special measures required.

· 7.2 Conditions for safe storage, including any incompatibilities

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

· 7.3 **Specific end use(s)** No further relevant information available.

(Contd. of page 2)

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Goggles recommended during refilling

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· Change in condition

Melting point/freezing point:	0 °C
Initial boiling point and boiling range:	100 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not applicable.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: **POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)**

(Contd. of page 3)

· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.00016 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	0.952 mPas
Kinematic:	Not determined.
Water:	99.9 %
VOC (EC)	0.00 %
Solids content:	0.1 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 4)

- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

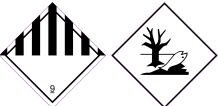
SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|---|---|
| · 14.1 UN-Number | |
| · ADR | not regulated |
| · IMDG, IATA | UN3082 |
| · 14.2 UN proper shipping name | |
| · ADR | not regulated |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| · 14.3 Transport hazard class(es) | |
| · ADR, ADN | |
| · Class | not regulated |
| · IMDG, IATA | |
|  | |
| · Class | 9 Miscellaneous dangerous substances and articles. |
| · Label | 9 |

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.05.2022

Revision: 11.05.2022

Trade name: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Contd. of page 5)

· 14.4 Packing group	
· ADR	not regulated
· IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· 14.6 Special precautions for user	Not applicable.
· EMS Number:	F-A, S-
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	not regulated

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I Substance is not listed.**
- **15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 11.05.2022

Herziening van: 11.05.2022

RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

- **1.1 Productidentificatie**
- **Handelsnaam:** *POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)*
- **Artikelnummer:** 19320-B, 19321-B
- **CAS-nummer:** 7732-18-5
- **EC-nummer:** 231-791-2
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** *Laboratoriumchemicaliën*
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**
*Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com*
- *Aurion
Binnenhaven 5
6709 PD Wageningen
The Netherlands
Tel: 31 317 415094
Fax: 31 317 415955
email: info@aurion.nl*
- **Inlichtingengevende sector:** *Product safety department*
- **1.4 Telefoonnummer voor noodgevallen:**
*ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887*

RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**
De stof is niet geïdentificeerd volgens de CLP-verordening.
- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008** *Niet van toepassing*
- **Gevarenpictogrammen** *Niet van toepassing*
- **Signaalwoord** *Niet van toepassing*
- **Gevarenaanduidingen** *Niet van toepassing*
- **2.3 Andere gevaren**
- **Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** *Niet bruikbaar.*
- **zPzB:** *Niet bruikbaar.*

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

- **3.1 Chemische karakterisering: Stoffen**
- **CAS-Nr. omschrijving**
7732-18-5 water, gedistilleerd, conductometrisch zuiverwater en dergelijk zuiver water

(Vervolg op blz. 2)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 11.05.2022

Herziening van: 11.05.2022

Handelsnaam: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Vervolg van blz. 1)

- **Identificatienummer(s)**
- **EC-nummer:** 231-791-2

RUBRIEK 4: Eerstehulpmaatregelen

- **4.1 Beschrijving van de eerstehulpmaatregelen**
- **Algemene informatie:**
Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
Geen speciale maatregelen noodzakelijk.
- **Na het inademen:** *Frisse lucht toedienen; bij klachten arts ontbieden.*
- **Na huidcontact:** *Over het algemeen is het produkt niet prikkelend voor de huid*
- **Na oogcontact:** *Ogen bij geopend ooglid meerdere minuten met stromend water spoelen*
- **Na inslikken:** *Als de klachten niet minderen, een arts raadplegen*
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** *Geen verdere relevante informatie verkrijgbaar.*
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**
Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:** *Brandblusmaatregelen op omgeving afstemmen.*
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweertieners**
- **Speciale beschermende kleding:** *Geen bijzondere maatregelen nodig.*

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures** *Niet nodig.*
- **6.2 Milieuvoorzorgsmaatregelen:** *Met veel water verdunnen.*
- **6.3 InsluTINGS- en reinigingsmethoden en -materiaal:**
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
Besmet materiaal zoals afval volgens punt 13 verwijderen.
Voor voldoende ventilatie zorgen.
- **6.4 Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
Geen bijzondere maatregelen noodzakelijk.
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** *Geen bijzondere maatregelen noodzakelijk.*
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** *Geen bijzondere eisen.*

(Vervolg op blz. 3)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 11.05.2022

Herziening van: 11.05.2022

Handelsnaam: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Vervolg van blz. 2)

- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Geen.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **8.1 Controleparameters**
- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:** Vervalt.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
Verwijderd houden van eet- en drinkwaren.
Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**
Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.
- **Handbescherming:**



Veiligheidshandschoenen

- Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.
Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.
- **Handschoenmateriaal**
De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant.
 - **Doordringingstijd van het handschoenmateriaal**
De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.
 - **Oogbescherming:** Bij het omgieten is het gebruik van een veiligheidsbril aan te bevelen.

RUBRIEK 9: Fysische en chemische eigenschappen

- **9.1 Informatie over fysische en chemische basiseigenschappen**
- **Algemene gegevens**
- **Voorkomen:**

Vorm:	Vloeistof
Kleur:	Kleurloos
Geur:	Karakteristiek
Geurdrempelwaarde:	Niet bepaald.
- **pH-waarde:** Niet bepaald.
- **Toestandsverandering**

Smelt-/vriespunt:	0 °C
Beginkookpunt en kooktraject:	100 °C
- **Vlampunt:** Niet bruikbaar.

(Vervolg op blz. 4)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 11.05.2022

Herziening van: 11.05.2022

Handelsnaam: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Vervolg van blz. 3)

· Ontvlambaarheid (vast, gas):	Niet bruikbaar.
· Ontledingstemperatuur:	Niet bepaald.
· Zelfontbrandingstemperatuur:	Niet bepaald.
· Ontploffingseigenschappen:	Het produkt is niet ontploffingsgevaarlijk.
· Ontploffingsgrenzen:	
Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.
· Dampspanning bij 20 °C:	23 hPa
· Dichtheid bij 20 °C:	1,00016 g/cm ³
· Relatieve dichtheid	Niet bepaald.
· Dampdichtheid	Niet bepaald.
· Verdampingssnelheid	Niet bepaald.
· Oplosbaarheid in/mengbaarheid met Water:	Volledig mengbaar.
· Verdelingscoëfficiënt: n-octanol/water:	Niet bepaald.
· Viscositeit	
Dynamisch bij 20 °C:	0,952 mPas
Kinematisch:	Niet bepaald.
Water:	99,9 %
VOC (EG)	0,00 %
Gehalte aan vaste bestanddelen:	0,1 %
· 9.2 Overige informatie	Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Ernstig oogletsel/oogirritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Sensibilisatie van de luchtwegen/de huid**
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Aanvullende toxicologische informatie:**
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

(Vervolg op blz. 5)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 11.05.2022

Herziening van: 11.05.2022

Handelsnaam: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Vervolg van blz. 4)

- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL): B(4) Weinig schadelijk voor in water levende organismen
Over het algemeen geen gevaar voor water
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Kleine hoeveelheden kunnen tezamen met huisvuil gestort worden.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- | | |
|--|--|
| · 14.1 VN-nummer | |
| · ADR | Niet van toepassing |
| · IMDG, IATA | UN3082 |
| · 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN | |
| · ADR | Niet van toepassing |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S., MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. |

(Vervolg op blz. 6)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 11.05.2022

Herziening van: 11.05.2022

Handelsnaam: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Vervolg van blz. 5)

· **14.3 Transportgevaarklasse(n)**

· **ADR, ADN**
· **klasse**

Niet van toepassing

· **IMDG, IATA**



· **Class**
· **Label**

9 Diverse gevaarlijke stoffen en voorwerpen
9

· **14.4 Verpakkingsgroep:**

· **ADR**
· **IMDG, IATA**

Niet van toepassing
III

· **14.5 Milieugevaren:**

· **Marine pollutant:**
· **Bijzondere kenmerking (IATA):**

Symbool (vis en boom)
Symbool (vis en boom)

· **14.6 Bijzondere voorzorgen voor de gebruiker**
· **EMS-nummer:**

Niet bruikbaar.
F-A, S-

· **14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code**

Niet bruikbaar.

· **VN "Model Regulation":**

Niet van toepassing

RUBRIEK 15: Regelgeving

· **15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel**

· **SZW-lijst van kankerverwekkende stoffen**

geen der bestanddelen staat op de lijst.

· **SZW-lijst van mutagene stoffen**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding**

geen der bestanddelen staat op de lijst.

· **Lijst Zeer Zorgwekkende Stoffen (ZZS)**

geen der bestanddelen staat op de lijst.

· **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

geen der bestanddelen staat op de lijst.

· **Richtlijn 2012/18/EU**

· **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** De stof is niet aanwezig.

(Vervolg op blz. 7)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 11.05.2022

Herziening van: 11.05.2022

Handelsnaam: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Vervolg van blz. 6)

· **Richtlijn 2011/65/EU betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen in elektrische en elektronische apparatuur - Bijlage II**

geen der bestanddelen staat op de lijst.

· **VERORDENING (EU) 2019/1148**

· **Bijlage I - PRECURSOREN VOOR EXPLOSIEVEN WAARVOOR EEN BEPERKING GELDT (Bovengrenswaarde ten behoeve van vergunningverlening op grond van artikel 5, lid 3)**

geen der bestanddelen staat op de lijst.

· **Bijlage II - PRECURSOREN VOOR EXPLOSIEVEN DIE MOETEN WORDEN GEMELD**

geen der bestanddelen staat op de lijst.

· **Verordening (EG) nr. 273/2004 inzake drugsprecursoren**

geen der bestanddelen staat op de lijst.

· **Verordening (EG) Nr. 111/2005 houdende voorschriften voor het toezicht op de handel tussen de Gemeenschap en derde landen in drugsprecursoren**

geen der bestanddelen staat op de lijst.

· **Nationale voorschriften:**

· **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL): B(4) Weinig schadelijk voor in water levende organismen

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

· **Afkortingen en acroniemen:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 11.05.2022

Révision: 11.05.2022

RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit:** *POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)*
- **Code du produit:** 19320-B, 19321-B
- **No CAS:**
7732-18-5
- **Numéro CE:**
231-791-2
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** *Produits chimiques pour laboratoires*
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**
*Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com*
- **Service chargé des renseignements:** *Product safety department*
- **1.4 Numéro d'appel d'urgence:**
*ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887*

RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008** *La substance n'est pas classifiée selon le règlement CLP.*
- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** *néant*
- **Pictogrammes de danger** *néant*
- **Mention d'avertissement** *néant*
- **Mentions de danger** *néant*
- **2.3 Autres dangers**
- **Résultats des évaluations PBT et vPvB**
- **PBT:** *Non applicable.*
- **vPvB:** *Non applicable.*

RUBRIQUE 3: Composition/informations sur les composants

- **3.1 Caractérisation chimique: Substances**
- **No CAS Désignation**
7732-18-5 eaux distillées, de conductibilité ou de même degré de pureté
- **Code(s) d'identification**
- **Numéro CE:** 231-791-2

FR

(suite page 2)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 11.05.2022

Révision: 11.05.2022

Nom du produit: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(suite de la page 1)

RUBRIQUE 4: Premiers secours

· 4.1 Description des premiers secours

· Remarques générales:

Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.

Aucune mesure particulière n'est requise.

· **Après inhalation:** Donner de l'air frais, consulter un médecin en cas de troubles.

· **Après contact avec la peau:** En règle générale, le produit n'irrite pas la peau.

· **Après contact avec les yeux:**

Rincer les yeux, sous l'eau courante, pendant plusieurs minutes, en écartant bien les paupières.

· **Après ingestion:** Si les troubles persistent, consulter un médecin.

· **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.

· **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**

Pas d'autres informations importantes disponibles.

RUBRIQUE 5: Mesures de lutte contre l'incendie

· 5.1 Moyens d'extinction

· **Moyens d'extinction:** Adapter les mesures d'extinction d'incendie à l'environnement.

· 5.2 Dangers particuliers résultant de la substance ou du mélange

Pas d'autres informations importantes disponibles.

· 5.3 Conseils aux pompiers

· **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

· **6.1 Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.

· **6.2 Précautions pour la protection de l'environnement:** Diluer avec beaucoup d'eau.

· 6.3 Méthodes et matériel de confinement et de nettoyage:

Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).

Evacuer les matériaux contaminés en tant que déchets conformément au point 13.

Assurer une aération suffisante.

· 6.4 Référence à d'autres rubriques

Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.

Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.

Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

RUBRIQUE 7: Manipulation et stockage

· 7.1 Précautions à prendre pour une manipulation sans danger

Aucune mesure particulière n'est requise.

Veiller à une bonne ventilation/aspiration du poste de travail.

Eviter la formation d'aérosols.

· **Préventions des incendies et des explosions:** Aucune mesure particulière n'est requise.

· 7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités

· Stockage:

· **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.

· **Indications concernant le stockage commun:** Pas nécessaire.

· **Autres indications sur les conditions de stockage:** Néant.

(suite page 3)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 11.05.2022

Révision: 11.05.2022

Nom du produit: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(suite de la page 2)

· 7.3 Utilisation(s) finale(s) particulière(s) Pas d'autres informations importantes disponibles.

RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

· **8.1 Paramètres de contrôle**

· **Indications complémentaires pour l'agencement des installations techniques:**

Sans autre indication, voir point 7.

· **Composants présentant des valeurs-seuil à surveiller par poste de travail: Néant**

· **Remarques supplémentaires:**

Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.

· **8.2 Contrôles de l'exposition**

· **Équipement de protection individuel:**

· **Mesures générales de protection et d'hygiène:**

Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.

Eviter tout contact avec les yeux et avec la peau.

· **Protection respiratoire:**

En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

· **Protection des mains:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.

À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

Le choix de gants appropriés ne dépend pas seulement du matériau, mais également d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre.

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:** Lunettes de protection recommandées pour le transvasement.

RUBRIQUE 9: Propriétés physiques et chimiques

· **9.1 Informations sur les propriétés physiques et chimiques essentielles**

· **Indications générales**

· **Aspect:**

Forme: Liquide

Couleur: Incolore

· **Odeur:** Caractéristique

· **Seuil olfactif:** Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

Point de fusion/point de congélation: 0 °C

Point initial d'ébullition et intervalle d'ébullition: 100 °C

· **Point d'éclair** Non applicable.

(suite page 4)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 11.05.2022

Révision: 11.05.2022

Nom du produit: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(suite de la page 3)

· Inflammabilité (solide, gaz):	Non applicable.
· Température de décomposition:	Non déterminé.
· Température d'auto-inflammabilité:	Non déterminé.
· Propriétés explosives:	Le produit n'est pas explosif.
· Limites d'explosion:	
Inférieure:	Non déterminé.
Supérieure:	Non déterminé.
· Pression de vapeur à 20 °C:	23 hPa
· Densité à 20 °C:	1,00016 g/cm ³
· Densité relative	Non déterminé.
· Densité de vapeur:	Non déterminé.
· Taux d'évaporation:	Non déterminé.
· Solubilité dans/miscibilité avec l'eau:	Entièrement miscible
· Coefficient de partage: n-octanol/eau:	Non déterminé.
· Viscosité:	
Dynamique à 20 °C:	0,952 mPas
Cinématique:	Non déterminé.
Eau:	99,9 %
VOC (CE)	0,00 %
Teneur en substances solides:	0,1 %
· 9.2 Autres informations	Pas d'autres informations importantes disponibles.

RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Lésions oculaires graves/irritation oculaire**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Sensibilisation respiratoire ou cutanée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

(suite page 5)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 11.05.2022

Révision: 11.05.2022

Nom du produit: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(suite de la page 4)

- **Indications toxicologiques complémentaires:**
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagenicité sur les cellules germinales**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité pour la reproduction**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition unique**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:** En général non polluant
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** De petites quantités peuvent être mises en décharge avec les ordures ménagères.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.
- **Produit de nettoyage recommandé:** Eau, éventuellement avec des produits de nettoyage

RUBRIQUE 14: Informations relatives au transport

- | | |
|--|--|
| · 14.1 Numéro ONU | |
| · ADR | néant |
| · IMDG, IATA | UN3082 |
| · 14.2 Désignation officielle de transport de l'ONU | |
| · ADR | néant |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S., MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. |

(suite page 6)

FR

Fiche de données de sécurité

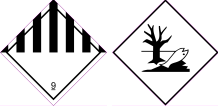
selon 1907/2006/CE, Article 31

Date d'impression : 11.05.2022

Révision: 11.05.2022

Nom du produit: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(suite de la page 5)

· 14.3 Classe(s) de danger pour le transport	
· ADR, ADN	
· Classe	néant
· IMDG, IATA	
	
· Class	9 Matières et objets dangereux divers.
· Label	9
· 14.4 Groupe d'emballage	
· ADR	néant
· IMDG, IATA	III
· 14.5 Dangers pour l'environnement:	
· Marine Pollutant:	Signe conventionnel (poisson et arbre)
· Marquage spécial (IATA):	Signe conventionnel (poisson et arbre)
· 14.6 Précautions particulières à prendre par l'utilisateur	Non applicable.
· No EMS:	F-A, S-
· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC	Non applicable.
· "Règlement type" de l'ONU:	néant

RUBRIQUE 15: Informations relatives à la réglementation

· 15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement
· Directive 2012/18/UE
· Substances dangereuses désignées - ANNEXE I la substance n'est pas comprise
· Directive 2011/65/UE relative à la limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques – Annexe II
Aucun des composants n'est compris.
· RÈGLEMENT (UE) 2019/1148
· Annexe I - PRÉCURSEURS D'EXPLOSIFS FAISANT L'OBJET DE RESTRICTIONS (Valeur limite maximale aux fins de l'octroi d'une licence en vertu de l'article 5, paragraphe 3)
Aucun des composants n'est compris.
· Annexe II - PRÉCURSEURS D'EXPLOSIFS DEVANT FAIRE L'OBJET D'UN SIGNALLEMENT
Aucun des composants n'est compris.
· Règlement (CE) n° 273/2004 relatif aux précurseurs de drogues
Aucun des composants n'est compris.
· Règlement (CE) n° 111/2005 fixant des règles pour la surveillance du commerce des précurseurs des drogues entre la Communauté et les pays tiers
Aucun des composants n'est compris.

(suite page 7)

Fiche de données de sécurité
selon 1907/2006/CE, Article 31

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Nom du produit: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(suite de la page 6)

· **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

· **Acronymes et abréviations:**

ADR: Accord relatif au transport international des marchandises dangereuses par route

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

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Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 11.05.2022

überarbeitet am: 11.05.2022

ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

- **1.1 Produktidentifikator**
- **Handelsname:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Artikelnummer:** 19320-B, 19321-B
- **CAS-Nummer:**
7732-18-5
- **EG-Nummer:**
231-791-2
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- Science Services GmbH
Unterhachinger Str. 75
81737 München Germany
- Tel: +49(0)89 18 93 668-0
safety@scienceservices.de
- Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

- **2.1 Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008** Der Stoff ist gemäß CLP-Verordnung nicht eingestuft.
- **2.2 Kennzeichnungselemente**
- **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008** entfällt
- **Gefahrenpiktogramme** entfällt
- **Signalwort** entfällt
- **Gefahrenhinweise** entfällt
- **2.3 Sonstige Gefahren**
- **Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

DE

(Fortsetzung auf Seite 2)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 11.05.2022

überarbeitet am: 11.05.2022

Handelsname: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Fortsetzung von Seite 1)

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.1 Chemische Charakterisierung: Stoffe**
- **CAS-Nr. Bezeichnung**
7732-18-5 Wasser
- **Identifikationsnummer(n)**
- **EG-Nummer:** 231-791-2

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Allgemeine Hinweise:**
Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
Keine besonderen Maßnahmen erforderlich.
- **Nach Einatmen:** *Frischluftzufuhr, bei Beschwerden Arzt aufsuchen.*
- **Nach Hautkontakt:** *Im allgemeinen ist das Produkt nicht hautreizend.*
- **Nach Augenkontakt:** *Augen bei geöffnetem Lidspalt mehrere Minuten mit fließendem Wasser spülen.*
- **Nach Verschlucken:** *Bei anhaltenden Beschwerden Arzt konsultieren.*
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**
Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:** *Feuerlöschmaßnahmen auf die Umgebung abstimmen.*
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** *Keine besonderen Maßnahmen erforderlich.*

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
Nicht erforderlich.
- **6.2 Umweltschutzmaßnahmen:** *Mit viel Wasser verdünnen.*
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**
Informationen zur sicheren Handhabung siehe Abschnitt 7.
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
Informationen zur Entsorgung siehe Abschnitt 13.

DE

(Fortsetzung auf Seite 3)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 11.05.2022

überarbeitet am: 11.05.2022

Handelsname: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Fortsetzung von Seite 2)

ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
Keine besonderen Maßnahmen erforderlich.
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:** Keine besonderen Maßnahmen erforderlich.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Keine.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **8.1 Zu überwachende Parameter**
- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.
- **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:** Entfällt.
- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**
Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
Berührung mit den Augen und der Haut vermeiden.
- **Atemschutz:**
Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition unluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

- **Handschuhmaterial**
Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.
- **Durchdringungszeit des Handschuhmaterials**
Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.
- **Augenschutz:** Beim Umfüllen Schutzbrille empfehlenswert.

DE

(Fortsetzung auf Seite 4)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 11.05.2022

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Handelsname: **POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)**

(Fortsetzung von Seite 3)

ABSCHNITT 9: Physikalische und chemische Eigenschaften

· 9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

· Allgemeine Angaben

· Aussehen:

Form: Flüssigkeit

Farbe: Farblos

· Geruch: Charakteristisch

· Geruchsschwelle: Nicht bestimmt.

· pH-Wert: Nicht bestimmt.

· Zustandsänderung

Schmelzpunkt/Gefrierpunkt: 0 °C

Siedebeginn und Siedebereich: 100 °C

· Flammpunkt: Nicht anwendbar.

· Entzündbarkeit (fest, gasförmig): Nicht anwendbar.

· Zersetzungstemperatur: Nicht bestimmt.

· Selbstentzündungstemperatur: Nicht bestimmt.

· Explosive Eigenschaften: Das Produkt ist nicht explosionsgefährlich.

· Explosionsgrenzen:

Untere: Nicht bestimmt.

Obere: Nicht bestimmt.

· Dampfdruck bei 20 °C: 23 hPa

· Dichte bei 20 °C: 1,00016 g/cm³

· Relative Dichte: Nicht bestimmt.

· Dampfdichte: Nicht bestimmt.

· Verdampfungsgeschwindigkeit: Nicht bestimmt.

· Löslichkeit in / Mischbarkeit mit

Wasser: Vollständig mischbar.

· Verteilungskoeffizient: n-Octanol/Wasser: Nicht bestimmt.

· Viskosität:

Dynamisch bei 20 °C: 0,952 mPas

Kinematisch: Nicht bestimmt.

Wasser: 99,9 %

VOC (EU): 0,00 %

Festkörpergehalt: 0,1 %

· 9.2 Sonstige Angaben: Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

· 10.1 Reaktivität: Keine weiteren relevanten Informationen verfügbar.

· 10.2 Chemische Stabilität

· Thermische Zersetzung / zu vermeidende Bedingungen:

Keine Zersetzung bei bestimmungsgemäßer Verwendung.

· 10.3 Möglichkeit gefährlicher Reaktionen: Keine gefährlichen Reaktionen bekannt.

· 10.4 Zu vermeidende Bedingungen: Keine weiteren relevanten Informationen verfügbar.

(Fortsetzung auf Seite 5)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 11.05.2022

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Handelsname: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Fortsetzung von Seite 4)

- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Schwere Augenschädigung/-reizung** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Zusätzliche toxikologische Hinweise:**
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:** Nicht wassergefährdend.
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Kleinere Mengen können gemeinsam mit Hausmüll deponiert werden.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.
- **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

ABSCHNITT 14: Angaben zum Transport

- **14.1 UN-Nummer**
- **ADR** entfällt
- **IMDG, IATA** UN3082

(Fortsetzung auf Seite 6)

Sicherheitsdatenblatt

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Handelsname: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Fortsetzung von Seite 5)

· **14.2 Ordnungsgemäße UN-Versandbezeichnung**
 · **ADR** entfällt
 · **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S., MARINE POLLUTANT
 · **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S.

· **14.3 Transportgefahrenklassen**
 · **ADR, ADN**
 · **Klasse** entfällt

· **IMDG, IATA**



· **Class** 9 Verschiedene gefährliche Stoffe und Gegenstände
 · **Label** 9

· **14.4 Verpackungsgruppe**
 · **ADR** entfällt
 · **IMDG, IATA** III

· **14.5 Umweltgefahren:**
 · **Marine pollutant:** Symbol (Fisch und Baum)
 · **Besondere Kennzeichnung (IATA):** Symbol (Fisch und Baum)

· **14.6 Besondere Vorsichtsmaßnahmen für den Verwender** Nicht anwendbar.
 · **EMS-Nummer:** F-A, S-

· **14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code** Nicht anwendbar.

· **UN "Model Regulation":** entfällt

ABSCHNITT 15: Rechtsvorschriften

· **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**

· **Richtlinie 2012/18/EU**

· **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Der Stoff ist nicht enthalten.

· **Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten – Anhang II**

Keiner der Inhaltsstoffe ist enthalten.

· **VERORDNUNG (EU) 2019/1148**

· **Anhang I - BESCHRÄNKTE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE (Oberer Konzentrationsgrenzwert für eine Genehmigung nach Artikel 5 Absatz 3)**

Keiner der Inhaltsstoffe ist enthalten.

· **Anhang II - MELDEPFLICHTIGE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE**

Keiner der Inhaltsstoffe ist enthalten.

(Fortsetzung auf Seite 7)

Sicherheitsdatenblatt
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(Fortsetzung von Seite 6)

· **Verordnung (EG) Nr. 273/2004 betreffend Drogenausgangsstoffe**

Keiner der Inhaltsstoffe ist enthalten.

· **Verordnung (EG) Nr. 111/2005 zur Festlegung von Vorschriften für die Überwachung des Handels mit Drogenaustauschstoffen zwischen der Gemeinschaft und Drittländern**

Keiner der Inhaltsstoffe ist enthalten.

· **Nationale Vorschriften:**

· **Wassergefährdungsklasse:** Im allgemeinen nicht wassergefährdend.

· **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

· **Abkürzungen und Akronyme:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 11.05.2022

Revisione: 11.05.2022

SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

· **Articolo numero:** 19320-B, 19321-B

· **Numero CAS:**

7732-18-5

· **Numeri CE:**

231-791-2

· **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**

Non sono disponibili altre informazioni.

· **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio

· **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: info@emsdiasum.com

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

· **Informazioni fornite da:** Product safety department

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

· **2.1 Classificazione della sostanza o della miscela**

· **Classificazione secondo il regolamento (CE) n. 1272/2008**

La sostanza non è classificata conformemente al regolamento CLP.

· **2.2 Elementi dell'etichetta**

· **Etichettatura secondo il regolamento (CE) n. 1272/2008 non applicabile**

· **Pittogrammi di pericolo non applicabile**

· **Avvertenza non applicabile**

· **Indicazioni di pericolo non applicabile**

· **2.3 Altri pericoli**

· **Risultati della valutazione PBT e vPvB**

· **PBT:** Non applicabile.

· **vPvB:** Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti

· **3.1 Caratteristiche chimiche: Sostanze**

· **Numero CAS**

7732-18-5 acque distillate, di conducibilita o dello stesso grado di purezza

(continua a pagina 2)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 11.05.2022

Revisione: 11.05.2022

Denominazione commerciale: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Segue da pagina 1)

- **Numero/i di identificazione**
- **Numeri CE: 231-791-2**

SEZIONE 4: Misure di primo soccorso

- **4.1 Descrizione delle misure di primo soccorso**
- **Indicazioni generali:**
I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.
Non sono necessari provvedimenti specifici.
- **Inalazione:** Portare in zona ben areata, in caso di disturbi consultare il medico.
- **Contatto con la pelle:** Generalmente il prodotto non è irritante per la pelle.
- **Contatto con gli occhi:** Lavare con acqua corrente per alcuni minuti tenendo le palpebre ben aperte.
- **Ingestione:** Se il dolore persiste consultare il medico.
- **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.
- **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**
Non sono disponibili altre informazioni.

SEZIONE 5: Misure antincendio

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:** Adottare provvedimenti antiincendio nei dintorni della zona colpita.
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.

SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza** Non necessario.
- **6.2 Precauzioni ambientali:** Diluire abbondantemente con acqua.
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**
Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).
Smaltimento del materiale contaminato conformemente al punto 13.
Provvedere ad una sufficiente areazione.
- **6.4 Riferimento ad altre sezioni**
Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.
Per informazioni relative allo smaltimento vedere Capitolo 13.

SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura**
Non sono richiesti provvedimenti particolari.
Accurata ventilazione/aspirazione nei luoghi di lavoro.
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:** Non sono richiesti provvedimenti particolari.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.

(continua a pagina 3)

Scheda di dati di sicurezza ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 11.05.2022

Revisione: 11.05.2022

Denominazione commerciale: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Segue da pagina 2)

- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Nessuno.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **8.1 Parametri di controllo**
- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:** Non Necessario.
- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.
- **8.2 Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**
Tenere lontano da cibo, bevande e foraggi.
Evitare il contatto con gli occhi e la pelle.
- **Maschera protettiva:**
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.
- **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione. A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche. Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

- **Materiale dei guanti**
La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro.
- **Tempo di permeazione del materiale dei guanti**
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.
- **Occhiali protettivi:** Si consiglia l'uso di occhiali protettivi durante il travaso.

SEZIONE 9: Proprietà fisiche e chimiche

- **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**

- **Indicazioni generali**

- **Aspetto:**

Forma:	Liquido
Colore:	Incolore
Odore:	Caratteristico
Soglia olfattiva:	Non definito.

- **valori di pH:** Non definito.

- **Cambiamento di stato**

Punto di fusione/punto di congelamento:	0 °C
Punto di ebollizione iniziale e intervallo di ebollizione:	100 °C

(continua a pagina 4)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 11.05.2022

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Denominazione commerciale: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Segue da pagina 3)

· Punto di infiammabilità:	Non applicabile.
· Infiammabilità (solidi, gas):	Non applicabile.
· Temperatura di decomposizione:	Non definito.
· Temperatura di autoaccensione:	Non definito.
· Proprietà esplosive:	Prodotto non esplosivo.
· Limiti di infiammabilità:	
Inferiore:	Non definito.
Superiore:	Non definito.
· Tensione di vapore a 20 °C:	23 hPa
· Densità a 20 °C:	1,00016 g/cm ³
· Densità relativa	Non definito.
· Densità di vapore:	Non definito.
· Velocità di evaporazione	Non definito.
· Solubilità in/Miscibilità con acqua:	Completamente miscibile.
· Coefficiente di ripartizione: n-ottanolo/acqua:	Non definito.
· Viscosità:	
Dinamica a 20 °C:	0,952 mPas
Cinematica:	Non definito.
Acqua:	99,9 %
VOC (CE)	0,00 %
Contenuto solido:	0,1 %
· 9.2 Altre informazioni	Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Sensibilizzazione respiratoria o cutanea**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

(continua a pagina 5)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 11.05.2022

Revisione: 11.05.2022

Denominazione commerciale: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Segue da pagina 4)

- **Ulteriori dati tossicologici:**
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità** *Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*
- **Tossicità per la riproduzione** *Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Pericolo in caso di aspirazione** *Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.*

SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** *Non sono disponibili altre informazioni.*
- **12.2 Persistenza e degradabilità** *Non sono disponibili altre informazioni.*
- **12.3 Potenziale di bioaccumulo** *Non sono disponibili altre informazioni.*
- **12.4 Mobilità nel suolo** *Non sono disponibili altre informazioni.*
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:** *Generalmente non pericoloso*
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** *Non applicabile.*
- **vPvB:** *Non applicabile.*
- **12.6 Altri effetti avversi** *Non sono disponibili altre informazioni.*

SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** *Piccole quantità di prodotto possono essere smaltite insieme ai rifiuti domestici.*
- **Imballaggi non puliti:**
- **Consigli:** *Smaltimento in conformità con le disposizioni amministrative.*
- **Detergente consigliato:** *Acqua eventualmente con l'aggiunta di detersivi.*

SEZIONE 14: Informazioni sul trasporto

- | | |
|---|--|
| · 14.1 Numero ONU | |
| · ADR | <i>non applicabile</i> |
| · IMDG, IATA | <i>UN3082</i> |
| · 14.2 Nome di spedizione dell'ONU | |
| · ADR | <i>non applicabile</i> |
| · IMDG | <i>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT</i> |
| · IATA | <i>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</i> |

(continua a pagina 6)

IT

Scheda di dati di sicurezza
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Stampato il: 11.05.2022

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(Segue da pagina 5)

· **14.3 Classi di pericolo connesso al trasporto**

· ADR, ADN

· Classe

non applicabile

· **IMDG, IATA**



· Class

9 Materie ed oggetti pericolosi diversi

· Label

9

· **14.4 Gruppo di imballaggio**

· ADR

non applicabile

· IMDG, IATA

III

· **14.5 Pericoli per l'ambiente:**

· **Marine pollutant:**

Simbolo (pesce e albero)

· **Marcatura speciali (IATA):**

Simbolo (pesce e albero)

· **14.6 Precauzioni speciali per gli utilizzatori**

Non applicabile.

· **Numero EMS:**

F-A, S-

· **14.7 Trasporto di rifiuti secondo l'allegato II di MARPOL ed il codice IBC**

Non applicabile.

· **UN "Model Regulation":**

non applicabile

SEZIONE 15: Informazioni sulla regolamentazione

· **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**

· **Direttiva 2012/18/UE**· **Sostanze pericolose specificate - ALLEGATO I** La sostanza non è contenuta

· **Direttiva 2011/65/UE sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche - Allegato II**

Nessuno dei componenti è contenuto.

· **REGOLAMENTO (UE) 2019/1148**

· **Allegato I - PRECURSORI DI ESPLOSIVI SOGGETTI A RESTRIZIONI (Valore limite superiore ai fini della concessione di licenze a norma dell'articolo 5, paragrafo 3)**

Nessuno dei componenti è contenuto.

· **Allegato II - PRECURSORI DI ESPLOSIVI SOGGETTI A SEGNALAZIONE**

Nessuno dei componenti è contenuto.

· **Regolamento (CE) n. 273/2004 relativo ai precursori di droghe**

Nessuno dei componenti è contenuto.

· **Regolamento (CE) N. 111/2005 recante norme per il controllo del commercio dei precursori di droghe tra la Comunità e i paesi terzi**

Nessuno dei componenti è contenuto.

(continua a pagina 7)

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(Segue da pagina 6)

· **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

SEZIONE 16: Altre informazioni

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

· **Abbreviazioni e acronimi:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

IT

물질안전보건자료

GHS에 따라

인쇄일자: 2022.05.11

개정: 2022.05.11

1 화학제품과 회사에 관한 정보

- 제품 식별자
 - 제품명: **POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)**
 - 상품번호: 19320-B, 19321-B
 - CAS-번호
7732-18-5
 - EC 의번호:
231-791-2
 - 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도
 - 제품의 권고 용도와 사용상의 제한: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
 - 제품의 권고 용도와 사용상의 제한: 실험실 화학품
 - 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
 - 제조자/수입자/유통업자 정보:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
 - Samchang Commercial Co., Ltd.
Yeo Eui Do
PO Box 1110
Seoul, Korea
Tel: 82 2 703 3040
Fax: 82 2 717 3298
-
- Daedok Science, Co. Ltd.
34141 E10 Korea Advanced Institute of Science
Guseong-Dong, Yuseong-gu, Daejeon,
Korea
Phone: 82 42 710 2091
Fax: 82 42 367 0005
Website: www.labsmro.com
 - 추가적인 정보 획득 가능: Product safety department
 - 비상연락 전화번호:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성·위험성

- 순물질 또는 혼합물의 분류 본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류되지 않습니다.
- 라벨표기 요소
- GHS 라벨 요소 누락되다
- GHS 그림문자 누락되다
- 신호어 누락되다
- 유해·위험문구 누락되다
- 기타 유해성
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

KR

(2 쪽에 계속)

물질안전보건자료 GHS에 따라

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(1 쪽부터계속)

3 구성성분의 명칭 및 함유량

- 화학적 특성: 화학물질
- CAS-번호표시
7732-18-5 물
- 식별 번호
- EC 의번호: 231-791-2

4 응급조치 요령

- 응급조치요령 내용
- 일반적 정보:
중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간동안은 의료진의 관찰을 받아야 한다.
특별한 조치가 필요없음.
- 흡입했을 때: 신선한 공기를 쐬고, 통증이 있을 때는 의료진의 도움을 구한다.
- 피부에 접촉했을 때: 일반적으로 이 제품은 피부에 자극적이지 않다.
- 눈에 들어갔을 때: 흐르는 물에 눈을 몇분동안 씻어낸다.
- 먹었을 때: 증상이 지속될 경우에는 의사와 상담한다.
- 기타 의사의 주의사항:
- 가장 중요한 급·만성 증상 및 영향 추가적인 정보가 존재하지 않습니다.
- 즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후 추가적인 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

- 소화제
- 적절한 소화제: 주변 환경에 맞는 화재진화방법을 사용한다.
- 본 화학물질이나 혼합물에서 발생하는 특별 유해성 추가적인 정보가 존재하지 않습니다.
- 소방관에 대한 권고사항
- 화재 진압 시 착용할 보호구 및 예방조치: 특별한 조치가 필요없음.

6 누출 사고 시 대처방법

- 개인적 예방조치, 보호장비 및 응급처치 절차 필요없음.
- 환경 관련 예방조치: 많은 물로 희석시킨다.
- 밀폐 및 정화 방법과 소재:
액체가 혼합된 물질 (모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
충분한 환기가 되도록 한다.
- 타 섹션 참조
안전 관리에 대한 정보는 제7 장을 참고하십시오.
개인 보호 장비에 대한 정보는 제8 장을 참고하십시오.
쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

7 취급 및 저장방법

- 취급:
- 안전 취급을 위한 예방조치
특별한 조치가 필요없음.
작업장에서는통풍이잘되고/습기제거가잘되게주의한다.

(3 쪽에계속)

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(2 쪽부터 계속)

- 연무질이 형성되는 것을 피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:** 특별한 조치가 필요없음.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특별한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필요없음
- **보관 조건에 관한 추가적인 정보:** 없음
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이상의 자료는 없음. 항목 7 을 참고하십시오.
- **통제 변수**
- **화학물질의 노출기준, 생물학적 노출기준 등:** 생략
- **추가 정보:** 제조할 당시에 유효한 목록을 기초로 사용했다.
- **노출 통제**
- **개인 보호구**
- **일반적보호조치및위생조치:**
 · 식료품, 음료수와 사료로부터 멀리 떨어져 놓는다.
 · 눈과 피부와의 접촉은 피한다.
- **호흡기 보호:**
 · 단 시간 또는 경미한 오염의 경우에는 호흡여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.
- **손 보호:**



보호용 장갑

- 장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.
- 테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.
- 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.
- **장갑의 재료**
 · 적합한 장갑의 선정은 재질 차이뿐 아니라 품질 기준의 차이도 고려하여 이루어져야 하고 제조업자에 따라서도 다르게 선정되어야 한다.
- **장갑 재료의 투과 시간** 정확한 관통 시간은 보호장갑 제조자에 의하여 인지되고, 준수되어야 한다.
- **눈 보호:** 옮겨부울 경우 추천할 만한 보안경.

9 물리화학적 특성

- **기본 물리 및 화학적 특성에 대한 정보**
- **일반정보**
- **외형**
 - 물리적 상태: 액체
 - 색: 색소가 없는
 - 냄새: 특색있는
 - 후각역치: 알맞지 않다.
- **pH:** 알맞지 않다.
- **상태변화**
 - 녹는점/어는점: 0 °C

(4 쪽에 계속)

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(3 쪽부터계속)

초기 끓는점과 끓는점 범위:	100 °C
· 인화점:	해당사항 없음.
· 인화성(고체, 기체):	해당사항 없음.
· 분해 온도:	알맞지않다.
· 자기점화:	알맞지않다.
· 폭발위험:	이제품은폭발위험성이없다
· 인화 또는 폭발 범위의 상한/하한 아래로:	알맞지않다.
위로:	알맞지않다.
· 증기압 의경우 20 °C:	23 hPa
· 밀도 의경우 20 °C:	1.00016 g/cm ³
· 비중:	알맞지않다.
· 증기밀도:	알맞지않다.
· 증발 속도:	알맞지않다.
· 용해도: 물:	완전히혼합할수있는
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도: 역학적 의경우 20 °C:	0.952 mPas
동점성:	알맞지않다.
물:	99.9 %
VOC (EU)	0.00 %
고체의 함량:	0.1 %
· 기타 정보	추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:
- 일차적 자극 효과:
- 피부 부식성 또는 자극성: 무자극
- 심한 눈 손상 또는 자극성: 무자극.
- 감각화: 민감한영향이없는것으로알려져있다.

(5 쪽에계속)

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인쇄일자: 2022.05.11

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제품명: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(4 쪽부터계속)

· 추가적인 독성에 관한 정보:

적절한범위내에서그리고규정에맞게사용된다면이제품은우리의경험과우리에게제출된정보에따라서건강에해로운영향을야기하지 않는다
이물질은최근에발표된텍스트에서유럽공동체-목록에근거하여특징표시의무가없다.

12 환경에 미치는 영향

- 독성
- 수생독성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동:
- 생물농축 잠재성 추가적인 정보가 존재하지 않습니다.
- 토양내 이동성 추가적인 정보가 존재하지 않습니다.
- 추가적인 생태학 정보:
- 일반 특징: 일반적으로수질오염이되지않는다
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.
- 기타 부작용 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- 폐기물 처리 방법
- 권고: 보다는은양은보편적으로생활쓰레기와함께보관될수있다
- 비위생적 포장:
- 권고: 당국의지침에입각한쓰레기처리.
- 추천 세정제: 경우에따라서세제가첨가된물

14 운송에 필요한 정보

<ul style="list-style-type: none"> · 유엔 번호 · ADR · IMDG, IATA 	<p style="margin: 0;">누락되다 UN3082</p>
<ul style="list-style-type: none"> · UN 적정 선적명 · ADR · IMDG · IATA 	<p style="margin: 0;">누락되다 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</p>
<ul style="list-style-type: none"> · 교통 위험 클래스 · ADR, ADN · 등급 	<p style="margin: 0;">누락되다</p>

(6 쪽에계속)


물질안전보건자료
GHS에 따라

인쇄일자: 2022.05.11

개정: 2022.05.11

제품명: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(5 쪽부터계속)

· IMDG, IATA 	
· Class	9 여러모로위험한물질과물체
· Label	9
· 용기등급	
· ADR	누락되다
· IMDG, IATA	III
· 환경적 유해물질:	
· 해양오염물질:	심별 (물고기와 나무)
· 특수 마킹 (IATA):	심별 (물고기와 나무)
· 이용자 특별 예방조치	해당사항 없음.
· EMS-번호:	F-A, S-
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.
· UN "모범 규제":	누락되다

15 법적 규제현황

· 산업안전보건법에 의한 규제:	
· 제조 등 금지물질:	어떠한내용물도목록화되어있지않다
· 허가대상물질:	어떠한내용물도목록화되어있지않다
· 관리대상유해물질:	어떠한내용물도목록화되어있지않다
· 작업환경측정 대상 유해인자	어떠한내용물도목록화되어있지않다
· 특수건강진단 대상 유해인자	어떠한내용물도목록화되어있지않다
· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률 추가적인 정보가 존재하지 않습니다.	
· Korean Existing Chemical Inventory	KE-35400
· 화학물질관리법	
· 사고대비물질	어떠한내용물도목록화되어있지않다
· 금지물질	어떠한내용물도목록화되어있지않다
· 제한물질	어떠한내용물도목록화되어있지않다

(7 쪽에계속)

물질안전보건자료
GHS에 따라

인쇄일자: 2022.05.11

개정: 2022.05.11

제품명: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(6 쪽부터계속)

· 유독물질

어떠한내용물도목록화되어있지않다

· 허가물질

어떠한내용물도목록화되어있지않다

· 등록 또는 신고 면제대상 화학물질

7732-18-5 물

· ‘21년까지 등록하여야 할 압, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존화학물질

어떠한내용물도목록화되어있지않다

· 중점관리물질의 지정

· 표1 중점관리물질(제2조 관련)

어떠한내용물도목록화되어있지않다

· 표2 중점관리물질(제2조 관련)

어떠한내용물도목록화되어있지않다

· GHS 라벨 요소 누락되다

· GHS 그림문자 누락되다

· 신호어 누락되다

· 유해·위험문구 누락되다

· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다

하지만이보고서는생산특성에관한보증은기술하지않았으며계약적인법률관계에기반을두고있지도않다

· 담당자:

· 최초 작성일자: 2022.05.11

· 개정 횟수 및 최종 개정일자: 1 / 2022.05.11

· 약어와 두문자어:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 11.05.2022

Disemak semula pada 11.05.2022

1 Pengenalan bahan kimia berbahaya dan pembekal

- **Pengenal pasti produk**
- **Nama dagang:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Nombor artikel:** 19320-B, 19321-B
- **Nombor CAS:**
7732-18-5
- **Nombor EC:**
231-791-2
- **Kegunaan yang disarankan bagi bahan dan sekatan penggunaan** Tiada maklumat lanjut yang diperoleh.
- **Penggunaan bahan/sediaan** Bahan kimia makmal
- **Perincian pembekal** risalah data keselamatan
- **Pengilang/Pembekal:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Maklumat lanjut dapat diperoleh daripada:** Product safety department
- **Nombor telefon kecemasan:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Pengenalan bahaya

- **Pengelasan bahan atau campuran** Bahan ini tidak dikelaskan menurut Sistem Terharmoni Global (GHS).
- **Melabelkan unsur**
- **Unsur label GHS** Tidak sah
- **Piktogram bahaya** Tidak sah
- **Kata isyarat** Tidak sah
- **Pernyataan Bahaya** Tidak sah
- **Bahaya lain**
- **Keputusan penilaian PBT dan vPvB**
- **PBT:** Tidak berkenaan
- **vPvB:** Tidak berkenaan

3 Komposisi dan maklumat mengenai ramuan bahan kimia berbahaya

- **Ciri kimia:** Bahan
- **Keterangan No. CAS**
7732-18-5 Deionized Water, Reagent Grade A.C.S.
- **Nombor pengenalpastian**
- **Nombor EC:** 231-791-2

4 Langkah-langkah pertolongan cemas

- **Keterangan langkah pertolongan cemas**
- **Maklumat am:**
Gejala keracunan boleh berlaku selepas beberapa jam, maka rawatan perubatan hendaklah diberikan sekurang-kurangnya 48 jam selepas kemalangan.
Tiada langkah khusus diperlukan.

(Bersambung ke halaman 2)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 11.05.2022

Disemak semula pada 11.05.2022

Nama dagang: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Sambungan halaman 1)

- **Jika tersedut:** Berikan udara bersih, hubungi doktor jika terdapat aduan.
- **Jika terkena kulit:** Biasanya produk tidak merengsakan kulit.
- **Jika terkena mata:** Bilas mata sambil membukanya di bawah air yang mengalir selama beberapa minit.
- **Jika tertelan:** Jika gejala berterusan, hubungi doktor.
- **Maklumat untuk doktor:**
- **Gejala dan kesan paling penting, akut dan lewat** Tiada maklumat lanjut yang diperoleh.
- **Arahan bagi apa-apa rawatan perubatan dan rawatan khas yang diperlukan**
Tiada maklumat lanjut yang diperoleh.

5 Langkah-langkah pemadaman kebakaran

- **Bahan pemadam api**
- **Agen pemadam yang sesuai:** Gunakan kaedah pemadaman kebakaran yang sesuai dengan keadaan sekeliling.
- **Bahaya khusus yang timbul daripada bahan atau campuran** Tiada maklumat lanjut yang diperoleh.
- **Panduan kepada pemadam kebakaran**
- **Kelengkapan perlindungan:** Tiada langkah khusus diperlukan.

6 Langkah-langkah pelepasan tidak sengaja

- **Langkah perlindungan diri, kelengkapan pelindung dan prosedur kecemasan** Tidak diperlukan.
- **Langkah perlindungan alam sekitar:** Cairkan dengan air yang banyak.
- **Kaedah dan bahan untuk pembendungan dan pembersihan:**
Serap dengan bahan cecair pengikat (pasir, diatomit, pengikat asid, pengikat semesta, habuk papan)
Lupuskan bahan tercemar sebagai sisa mengikut perkara 13.
Pastikan pengalihudaraan mencukupi.
- **Rujukan ke bahagian lain**
Lihat Bahagian 7 untuk maklumat pengendalian yang selamat.
Lihat Bahagian 8 untuk maklumat kelengkapan perlindungan diri.
Lihat Bahagian 13 untuk maklumat pelupusan.

7 Pengendalian dan penyimpanan

- **Pengendalian:**
- **Langkah perlindungan untuk pengendalian selamat**
Tiada langkah khusus diperlukan.
Pastikan pengalihudaraan/ekzos yang mencukupi di tempat kerja.
Elakkan pembentukan aerosol.
- **Maklumat kebakaran dan perlindungan daripada letupan:** Tiada langkah berjaga-jaga yang khusus diperlukan.
- **Keadaan untuk penyimpanan selamat, termasuk apa-apa ketakserasian**
- **Penyimpanan:**
- **Keperluan yang mesti dipenuhi oleh bilik stor dan ruang simpanan.** Tiada keperluan khusus.
- **Maklumat penyimpanan di dalam satu tempat penyimpanan yang biasa:** Tidak diperlukan.
- **Maklumat lanjut tentang syarat penyimpanan:** Tiada.
- **Kegunaan akhir yang khusus** Tiada maklumat lanjut yang diperoleh.

8 Kawalan pendedahan dan perlindungan diri

- **Maklumat tambahan tentang reka bentuk kemudahan teknikal:** Tiada maklumat lanjut, lihat perkara 7.
- **Parameter kawalan**
- **Ramuan dengan nilai had yang memerlukan pemantauan di tempat kerja:** Tidak diperlukan.

(Bersambung ke halaman 3)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 11.05.2022

Disemak semula pada 11.05.2022

Nama dagang: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Sambungan halaman 2)

- **Maklumat tambahan:** Senarai yang sah semasa pembuatan digunakan sebagai asas.
- **Kawalan pendedahan**
- **Kelengkapan perlindungan diri:**
- **Langkah perlindungan dan kebersihan am:**
Jauhkan daripada makanan, minuman dan makanan haiwan.
Elakkan daripada terkena mata dan kulit.
- **Perlindungan pernafasan:**
Jika berlaku pendedahan sekejap atau sedikit pencemaran, gunakan alat penapis pernafasan. Jika berlaku pendedahan yang intensif atau berpanjangan, gunakan alat pernafasan perlindungan serba lengkap.
- **Perlindungan tangan:**



Sarung tangan pelindung.

Bahan sarung tangan hendaklah telus dan kalis terhadap produk/bahan/sediaan.

Oleh sebab tiada ujian yang dijalankan, maka tiada syor bagi bahan sarung tangan yang boleh diberikan untuk produk/sediaan/campuran kimia.

Pemilihan bahan sarung tangan berdasarkan waktu penembusan, kadar pembauran dan degradasi.

- **Bahan sarung tangan**
Pemilihan sarung tangan yang sesuai bukan hanya bergantung pada bahannya, tetapi juga tanda kualiti lainnya serta perbezaannya daripada satu pengeluar dengan pengeluar yang lain.
- **Jangka masa penyerapan bahan sarung tangan**
Waktu kemunculan yang tepat hendaklah diperolehi pengeluar sarung tangan pelindung dan hendaklah dipatuhi.
- **Perlindungan mata:** Gagal disyorkan semasa pengisian semula.

9 Sifat fizikal dan kimia

- **Maklumat tentang ciri fizik dan kimia**

- **Maklumat Am**

- **Rupa:**

Bentuk: Cecair

Warna: Tidak berwarna

- **Bau:** Ciri

- **Ambang bau:** Tidak ditentukan.

- **Nilai pH:** Tidak ditentukan.

- **Perubahan pada keadaan**

Takat lebur/takat beku 0 °C

Takat didih awal dan julat didih 100 °C

- **Takat kilat:** Tidak berkenaan

- **Kemudahbakaran (pepejal, gas)** Tidak berkenaan

- **Suhu penguraian:** Tidak ditentukan.

- **Suhu pengautocucuhan** Tidak ditentukan.

- **Bahaya letupan:** Produk tidak ada bahaya letupan.

- **Had letupan :**

Bawah: Tidak ditentukan.

Atas: Tidak ditentukan.

(Bersambung ke halaman 4)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 11.05.2022

Disemak semula pada 11.05.2022

Nama dagang: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Sambungan halaman 3)

· Tekanan wap pada 20 °C:	23 hPa
· Ketumpatan pada 20 °C:	1.00016 g/cm ³
· Ketumpatan bandingan	Tidak ditentukan.
· Ketumpatan wap	Tidak ditentukan.
· Kadar penyejatan	Tidak ditentukan.
· Keterlarutan dalam / Keterlarutcampuran dengan Air:	Terlarut campur sepenuhnya.
· Pekali sekatan: n-oktanol/air	Tidak ditentukan.
· Kelikatan:	
Dinamik pada 20 °C:	0.952 mPas
Kinematik:	Tidak ditentukan.
Air:	99.9 %
· Kandungan pepejal:	0.1 %
· Maklumat lain	Tiada maklumat lanjut yang diperoleh.

10 Kestabilan dan kereaktifan

- Kereaktifan Tiada maklumat lanjut yang diperoleh.
- Kestabilan kimia
- Penguraian terma/keadaan yang perlu dielakkan: Tiada penguraian jika digunakan mengikut spesifikasi.
- Kemungkinan tindak balas berbahaya Tiada tindak balas berbahaya yang diketahui.
- Keadaan yang perlu dielakkan Tiada maklumat lanjut yang diperoleh.
- Bahan tidak serasi: Tiada maklumat lanjut yang diperoleh.
- Produk penguraian yang berbahaya: Tiada produk penguraian berbahaya yang diketahui.

11 Maklumat toksikologi

- Maklumat tentang kesan toksikologi
- Ketoksikan akut:
- Kesan kerengsaan primer:
- Kakisan atau kerengsaan kulit Tiada kesan merengsa.
- Kerosakan atau kerengsaan mata yang serius Tiada kesan kerengsaan.
- Pemekaan pernafasan / kulit Tiada kesan pemekaan yang diketahui.
- Maklumat tambahan toksikologi:
Berdasarkan pengalaman serta maklumat yang diberikan kepada kami, produk tidak mempunyai sebarang kesan yang memudaratkan apabila digunakan dan dikendalikan mengikut spesifikasi.
Bahan tidak tertakluk kepada pengelasan mengikut versi terbaru senarai EU.

12 Maklumat ekologi

- Ketoksikan
- Ketoksikan akuatik: Tiada maklumat lanjut yang diperoleh.
- Keterusan dan keterdegradasikan Tiada maklumat lanjut yang diperoleh.
- Kelakuan dalam sistem alam sekitar:
- Potensi bioakumulatif Tiada maklumat lanjut yang diperoleh.
- Mobiliti di dalam tanah Tiada maklumat lanjut yang diperoleh.

(Bersambung ke halaman 5)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 11.05.2022

Disemak semula pada 11.05.2022

Nama dagang: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)


(Sambungan halaman 4)

- **Maklumat tambahan ekologi:**
- **Nota am:** Biasanya tidak berbahaya kepada air
- **Keputusan penilaian PBT dan vPvB**
- **PBT:** Tidak berkenaan
- **vPvB:** Tidak berkenaan
- **Kesan buruk yang lain** Tiada maklumat lanjut yang diperolehi.

13 Maklumat pelupusan

- **Kaedah rawatan sisa**
- **Syor:** Kuantiti yang kecil boleh dilupuskan bersama dengan sisa isi rumah.
- **Pembungkusan yang tidak bersih:**
- **Syor:** Pelupusan mestilah dijalankan menurut peraturan rasmi
- **Agen pencuci yang disyorkan:** Air, jika perlu, digunakan bersama dengan agen pencuci.

14 Maklumat pengangkutan

· Nombor UN	
· ADR	Tidak sah
· IMDG, IATA	UN3082
· Nama penghantaran UN yang betul	
· ADR	Tidak sah
· IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT
· IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
· pengangkutan kelas bahaya	
· ADR, ADN	
· Kelas	Tidak sah
· IMDG, IATA	
	
· Class	9 Berbagai-bagai bahan dan artikel berbahaya.
· Label	9
· Kumpulan pembungkusan	
· ADR	Tidak sah
· IMDG, IATA	III
· Hazard persekitaran:	
· Bahan cemar marin:	Tanda (ikan dan pokok)
· Pelabelan khas (IATA):	Tanda (ikan dan pokok)
· Langkah perlindungan khas untuk pengguna	Tidak berkenaan
· Nombor EMS:	F-A, S-
· Pengangkutan dalam pukat menurut Lampiran II MARPOL73/78 dan Kod IBC	Tidak berkenaan

(Bersambung ke halaman 6)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 11.05.2022

Disemak semula pada 11.05.2022

Nama dagang: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Sambungan halaman 5)

· **"Peraturan Model" UN:** Tidak sah

15 Maklumat pengawalseliaan

· **Peraturan/undang-undang keselamatan, kesihatan dan persekitaran khusus untuk bahan atau campuran tersebut**

Tiada maklumat lanjut yang diperolehi.

· **Senarai Rujukan Bahan Berbahaya Alam Sekitar**

Tiada ramuan yang disenaraikan.

· **Unsur label GHS** Tidak sah

· **Piktogram hazard** Tidak sah

· **Perkataan isyarat** Tidak sah

· **Pernyataan hazard** Tidak sah

· **Penilaian keselamatan bahan kimia:** Penilaian Keselamatan Bahan Kimia belum dilakukan.

16 Maklumat lain

Maklumat ini berdasarkan maklumat kami yang terkini. Walau bagaimanapun, ini tidak akan menjadi jaminan bagi apa-apa ciri produk yang khusus dan tidak akan mewujudkan hubungan kontraktual yang sah dari segi undang-undang.

· **Hubungi:**

· **Singkatan dan akronim:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 11.05.2022

revidert den: 11.05.2022

Avsnitt 1: Identifikasjon av stoffet/stoffblandingen og av selskapet/foretaket

- **1.1 Produktidentifikator**
- **Handelsnavn:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Artikkelnummer:** 19320-B, 19321-B
- **CAS-nummer:**
7732-18-5
- **EC nummer:**
231-791-2
- **1.2 Relevante identifiserte bruksområder for stoffet eller stoffblandingen og bruk som frarådes**
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Opplysninger om leverandøren av sikkerhetsdatabladet**
- **Produsent/leverandør:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødtelefonnummer**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

Avsnitt 2: Fareidentifikasjon

- **2.1 Klassifisering av stoffet eller stoffblandingen**
- **Klassifisering i henhold til EC-forskrift nr.1272/2008**
Substansen er ikke klassifisert i henhold til CLP-forordningen.
- **2.2 Merkingselementer**
- **Merking iht. bestemmelse (EC) Nr. 1272/2008 bortfaller**
- **Farepiktogrammer** bortfaller
- **Varselord** bortfaller
- **Faresetninger** bortfaller
- **2.3 Andre farer**
- **Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.

Avsnitt 3: Sammensetning/opplysninger om bestanddeler

- **3.1 Kjemisk karakterisering: Stoffer**
- **CAS-nr. betegnelse**
7732-18-5 Deionized Water, Reagent Grade A.C.S.
- **Identifikasjonsnummer(numre)**
- **EC nummer:** 231-791-2

NO

(fortsatt på side 2)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 11.05.2022

revidert den: 11.05.2022

Handelsnavn: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(fortsatt fra side 1)

Avsnitt 4: Førstehjelpstiltak

- **4.1 Beskrivelse av førstehjelpstiltak**
- **Generelle informasjoner:**
 Forgiftningssymptomer kan også oppstå etter mange timer. Personer må derfor ha legetilsyn i minst 48 timer etter en ulykke.
 Ingen spesielle tiltak nødvendig.
- **Etter innånding:** Frisklufttilførsel, ved besvær oppsøkes lege.
- **Etter hudkontakt:** Vanligvis irriterer produktet ikke huden.
- **Etter øyekontakt:** Skyll øynene med åpne øyenlokk i flere minutter under rennende vann.
- **Etter svelging:** Ved fortsatt besvær må lege konsulteres.
- **4.2 De viktigste symptomene og virkningene, både akutte og forsinkede**
 Ikke noe mer relevant informasjon tilgjengelig.
- **4.3 Angivelse av om umiddelbar legehjelp og spesialbehandling er nødvendig**
 Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 5: Brannsløkkingstiltak

- **5.1 Sløkkingsmidler**
- **Egnede slukningsmidler:** Brannslukningstiltak tilpasses omgivelsene.
- **5.2 Særlige farer knyttet til stoffet eller stoffblandingen** Ikke noe mer relevant informasjon tilgjengelig.
- **5.3 Råd til brannmannskaper**
- **Spesielt verneutstyr:** Ingen spesielle tiltak nødvendig.

Avsnitt 6: Tiltak ved utilsiktede utslipp

- **6.1 Personlige forsiktighetsregler, personlig verneutstyr og nødrutiner** Ikke nødvendig.
- **6.2 Forsiktighetsregler med hensyn til miljø** Fortynn med rikelig med vann.
- **6.3 Metoder og materialer for oppsamling og rensing**
 Ta opp stoffet med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, sagflis).
 Bortskaff kontaminert materiale som avfall i.h.t. punkt 13.
 Sørg for tilstrekkelig ventilasjon.
- **6.4 Henvisning til andre avsnitt**
 Informasjoner om sikker håndtering, se kapittel 7.
 Informasjoner om personlig beskyttelsesutstyr, se kapittel 8.
 Informasjoner om bortskaffelse/deponering, se kapittel 13.

Avsnitt 7: Håndtering og lagring

- **7.1 Forsiktighetsregler for sikker håndtering**
 Ingen særlige tiltak nødvendig.
 Sørg for god ventilasjon/avsugning på arbeidsplassen.
 Unngå aerosoldannelse.
- **Henvisninger om brann- og eksplosjonsvern:** Ingen særlige tiltak nødvendig.
- **7.2 Vilkår for sikker lagring, herunder eventuelle uforenligheter**
- **Lagring:**
- **Krav til lagerrom og beholdere:** Ingen spesielle krav.
- **Informasjoner om felles lagring:** Ikke nødvendig.
- **Ytterligere informasjoner om lagervilkårene:** Ingen.

(fortsatt på side 3)

Sikkerhetsdatablad

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Trykkdato: 11.05.2022

revidert den: 11.05.2022

Handelsnavn: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(fortsatt fra side 2)

- 7.3 Særlig(e) sluttanvendelse(r) Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 8: Eksponeringskontroll / personlig verneutstyr

- **8.1 Kontrollparametere**
- **Ytterligere informasjon om utforming av tekniske anlegg:** Ingen ytterligere informasjon, se punkt 7.
- **Komponenter med grenseverdier for arbeidsplass som må overholdes:** Bortfaller.
- **Ytterligere informasjon:** Basis: listene som var gyldige ved oppstillingen.
- **8.2 Eksponeringskontroll**
- **Personlig verneutstyr:**
- **Generelle verne- og hygienetiltak:**
Holdes adskilt fra næringsmidler, drikkevarer og fôrstoffer.
Unngå berøring med øyne og hud.
- **Åndedrettsvern:**
Ved korttidig eller liten belastning åndedrettsfilterapparat; ved intensiv eller lengre utsetting: bruk omluft-uavhengig åndedrettsbeskyttelsesapparat.
- **Håndvern:**



Beskyttelseshansker

- Hanskematerialet må være ugjennomtrengelig og bestandig overfor produktet /stoffet /blandingen.
På grunn av manglende tester kan det ikke gis noen anbefaling om hanskemateriale for produktet / tilberedningsprosessen/kjemikalieblandingen.
Hanskematerialet velges under hensyntagen til holdbarhetstid, gjennomtrengelighet og degradering.
- **hanskemateriale**
Valget av egnet hanske er ikke bare avhengig av materiale, men også av andre kvalitetskennetegn og er forskjellig fra produsent til produsent.
 - **gjennomtrengingstid for hanskemateriale**
Den nøyaktige holdbarhetstiden må bringes på det rene hos hanskeprodusenten og overholdes.
 - **Øyevern:** Vernebrille anbefales ved omfylling.

Avsnitt 9: Fysiske og kjemiske egenskaper

- **9.1 Opplysninger om grunnleggende fysiske og kjemiske egenskaper**
- **alminnelige opplysninger**
- **Utseende:**
- **Form:** Væske
- **Farge:** Fargeløs
- **Lukt:** Karakteristisk
- **Lukterskel:** Ikke bestemt.
- **pH-verdi:** Ikke bestemt.
- **Tilstandsending**
- **Smeltepunkt/frysepunkt:** 0 °C
- **Startkokepunkt og kokeområde:** 100 °C
- **Flammepunkt:** Ikke brukbar.
- **Antennelighet (fast stoff, gass):** Ikke brukbar.

(fortsatt på side 4)

Sikkerhetsdatablad

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Trykkdato: 11.05.2022

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(fortsatt fra side 3)

· Nedbrytningstemperatur:	Ikke bestemt.
· Selvantennelsestemperatur:	Ikke bestemt.
· Eksplorative egenskaper:	Produktet er ikke eksplosjonsfarlig.
· Ekspljosjonsgrenser:	
Nedre:	Ikke bestemt.
Øvre:	Ikke bestemt.
· Damptrykk ved 20 °C:	23 hPa
· Tetthet ved 20 °C:	1,00016 g/cm ³
· Relativ tetthet:	Ikke bestemt.
· Damptetthet:	Ikke bestemt.
· Fordampingshastighet:	Ikke bestemt.
· Løslighet i / blandbarhet med vann:	Fullstendig blandbar.
· Fordelingskoeffisient; n-oktanol/vann:	Ikke bestemt.
· Viskositet:	
Dynamisk ved 20 °C:	0,952 mPas
Kinematisk:	Ikke bestemt.
Vann:	99,9 %
VOC (EF)	0,00 %
Andel faste stoffer:	0,1 %
· 9.2 Andre opplysninger	Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** Ikke noe mer relevant informasjon tilgjengelig.
- **10.2 Kjemisk stabilitet**
- **Termisk spaltning / vilkår som må unngås:** Ingen spaltning ved formålsriktig bruk.
- **10.3 Risiko for farlige reaksjoner** Det kjennes ingen farlige reaksjoner.
- **10.4 Forhold som skal unngås** Ikke noe mer relevant informasjon tilgjengelig.
- **10.5 Uforenlige materialer** Ikke noe mer relevant informasjon tilgjengelig.
- **10.6 Farlige nedbrytingsprodukter** Ingen farlige spaltningsprodukter kjente.

Avsnitt 11: Toksikologiske opplysninger

- **11.1 Opplysninger om toksikologiske virkninger**
- **Akutt giftighet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Primær irritasjonsvirkning:**
- **Hudetsing/hudirritasjon** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Alvorlig øyeskade/øyeirritasjon** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Sensibilisering ved innånding eller hudkontakt** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Informasjon om følgende grupper med potensielle virkninger:**
- **CMR-virkninger (kreftfremkallende virkninger, arvestoffskadelige og reproduksjonsskadelige virkninger)**
- **Arvestoffskadelig virkning på kjønnseller** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Kreftfremkallende egenskap** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Reproduksjonstoksicitet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **STOT – enkelteksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.

(fortsatt på side 5)

Sikkerhetsdatablad

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Trykkdato: 11.05.2022

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(fortsatt fra side 4)

- **STOT – gjentatt eksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Aspirasjonsfare** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.


Avsnitt 12: Økologiske opplysninger

- **12.1 Giftighet**
- **Akvatisk toksisitet:** Ikke noe mer relevant informasjon tilgjengelig.
- **12.2 Persistens og nedbrytbarhet** Ikke noe mer relevant informasjon tilgjengelig.
- **12.3 Bioakkumuleringsevne** Ikke noe mer relevant informasjon tilgjengelig.
- **12.4 Mobilitet i jord** Ikke noe mer relevant informasjon tilgjengelig.
- **Ytterligere økologiske informasjoner:**
- **Generelle informasjoner:** Generelt ikke farlig for vann
- **12.5 Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.
- **12.6 Andre skadevirkninger** Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 13: Sluttbehandling

- **13.1 Avfallsbehandlingsmetoder**
- **Anbefaling:** Mindre mengder kan deponeres sammen med husholdningsavfall.
- **Ikke rengjort emballasje:**
- **Anbefaling:** Deponering i henhold til myndighetenes forskrifter.
- **Anbefalt rengjøringsmiddel:** Vann, eventuelt med tilsetning av rengjøringsmidler.

Avsnitt 14: Transportopplysninger

- **14.1 FN-nummer**
- **ADR** bortfaller
- **IMDG, IATA** UN3082
- **14.2 FN-forsendelsesnavn**
- **ADR** bortfaller
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
- **14.3 Transportfareklasse(r)**
- **ADR, ADN**
- **klasse** bortfaller
- **IMDG, IATA**
- 
- **Class** 9 Forskjellige farlige stoffer og gjenstander
- **Label** 9

(fortsatt på side 6)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 11.05.2022

revidert den: 11.05.2022

Handelsnavn: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(fortsatt fra side 5)

· 14.4 Emballasjegruppe	
· ADR	bortfaller
· IMDG, IATA	III
· 14.5 Miljøfarer	
· Marine pollutant:	Symbol (fisk og treet)
· Spesielle merking (IATA):	Symbol (fisk og treet)
· 14.6 Særlige forsiktighetsregler ved bruk	Ikke brukbar.
· EMS-nummer:	F-A, S-
· 14.7 Bulktransport i henhold til vedlegg II til MARPOL 73/78 og IBC-regelverket	Ikke brukbar.
· UN "Model Regulation":	bortfaller

Avsnitt 15: Opplysninger om regelverk

- **15.1 Særlige bestemmelser / særskilt lovgivning om sikkerhet, helse og miljø for stoffet eller stoffblandingen**
- **Direktiv 2012/18/EU**
- **Spesifiserte farlige stoffer - VEDLEGG I** Inneholder ikke stoffet.

· **Direktiv 2011/65/EF om begrensning av bruken av visse farlige stoffer i elektrisk og elektronisk utstyr - Vedlegg II**

ingen av innholdsstoffene er listet opp

· **Forordning (EF) nr. 273/2004 om utgangsstoffer for narkotika**

ingen av innholdsstoffene er listet opp

· **Forordning (EF) nr. 111/2005 om fastsettelse av regler for overvåking av handelen med utgangsstoffer for narkotika mel-lom Fellesskapet og tredjestater**

ingen av innholdsstoffene er listet opp

- **15.2 Vurdering av kjemikaliesikkerhet** En kjemisk sikkerhetsvurdering er ikke utført.

Avsnitt 16: Andre opplysninger

Opplysningene er basert på vårt kjennskap i dag. De utgjør dog ingen forsikring om produktegenskaper og er ikke grunnlag for noe kontraktmessig rettsforhold.

· Forkortelser og akronymer:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 11.05.2022

Revisão: 11.05.2022

SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)
- **Código do produto:** 19320-B, 19321-B
- **Nº CAS:**
7732-18-5
- **Número CE:**
231-791-2
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**
A substância não se classificou em conformidade com o regulamento CLP.
- **2.2 Elementos do rótulo**
- **Rotulagem em conformidade com o Regulamento (CE) n.º 1272/2008** não aplicável
- **Pictogramas de perigo** não aplicável
- **Palavra-sinal** não aplicável
- **Advertências de perigo** não aplicável
- **2.3 Outros perigos**
- **Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.

SECÇÃO 3: Composição/informação sobre os componentes

- **3.1 Caracterização química: Substâncias**
- **Designação CAS n.º**
7732-18-5 água, destilada, condutora ou de similar pureza
- **Número(s) de identificação**
- **Número CE:** 231-791-2

PT

(continuação na página 2)

Ficha de dados de segurança

em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 11.05.2022

Revisão: 11.05.2022

Nome comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(continuação da página 1)

SECÇÃO 4: Medidas de primeiros socorros

- **4.1 Descrição das medidas de primeiros socorros**
- **Indicações gerais:**

Os sintomas de envenenamento podem surgir apenas após várias horas, por isso é necessária vigilância médica pelo menos 48 horas após o acidente.
Não são necessárias medidas especiais.
- **Em caso de inalação:** Entrada de ar fresco; em caso de queixas consultar o médico.
- **Em caso de contacto com a pele:** Em geral o produto não é irritante para a pele.
- **Em caso de contacto com os olhos:**

Enxaguar os olhos durante alguns minutos sob água corrente, mantendo as pálpebras abertas.
- **Em caso de ingestão:** Se os sintomas persistirem, consultar o médico.
- **4.2 Sintomas e efeitos mais importantes, tanto agudos como retardados**

Não existe mais nenhuma informação relevante disponível.
- **4.3 Indicações sobre cuidados médicos urgentes e tratamentos especiais necessários**

Não existe mais nenhuma informação relevante disponível.

SECÇÃO 5: Medidas de combate a incêndios

- **5.1 Meios de extinção**
- **Meios adequados de extinção:** Coordenar no local medidas para extinção do fogo.
- **5.2 Perigos especiais decorrentes da substância ou mistura**

Não existe mais nenhuma informação relevante disponível.
- **5.3 Recomendações para o pessoal de combate a incêndios**
- **Equipamento especial de protecção:** Não são necessárias medidas especiais.

SECÇÃO 6: Medidas a tomar em caso de fugas acidentais

- **6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência** Não necessário.
- **6.2 Precauções a nível ambiental:** Diluir em bastante água.
- **6.3 Métodos e materiais de confinamento e limpeza:**

Recolher com produtos que absorvam líquidos (areia, seixos, absorventes universais, serradura).
Eliminar residualmente as substâncias contaminadas como um resíduo segundo o Ponto 13.
Assegurar uma ventilação adequada.
- **6.4 Remissão para outras secções**

Para informações sobre uma manipulação segura, ver o capítulo 7.
Para informações referentes ao equipamento de protecção individual, ver o capítulo 8.
Para informações referentes à eliminação residual, ver o capítulo 13.

SECÇÃO 7: Manuseamento e armazenagem

- **7.1 Precauções para um manuseamento seguro**

Não são necessárias medidas especiais.
Assegurar uma boa ventilação / exaustão no local de trabalho.
Evitar a formação de aerossóis.
- **Precauções para prevenir incêndios e explosões:** Não são necessárias medidas especiais.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Sem requisitos especiais.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:** nenhuns.

(continuação na página 3)

Ficha de dados de segurança

em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 11.05.2022

Revisão: 11.05.2022

Nome comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(continuação da página 2)

· **7.3 Utilização(ões) final(is) específica(s)** Não existe mais nenhuma informação relevante disponível.

SECÇÃO 8: Controlo da exposição/Proteção individual

· **8.1 Parâmetros de controlo**

- **Indicações adicionais para concepção de instalações técnicas:** Não existem outras informações, ver ponto 7.
- **Componentes cujo valor do limite de exposição no local de trabalho deve ser monitorizado:** Não aplicável.
- **Indicações adicionais:** Foram utilizadas como base as listas válidas à data da elaboração.

· **8.2 Controlo da exposição**

· **Equipamento de protecção individual:**

· **Medidas gerais de protecção e higiene:**

Manter afastado de alimentos, bebidas e forragens.

Evitar o contacto com os olhos e com a pele.

· **Protecção respiratória:**

Utilizar uma máscara respiratória se a exposição for reduzida ou durante um curto espaço de tempo; se esta for mais prolongada ou mais intensa, utilizar uma máscara respiratória independente do ar ambiente.

· **Protecção das mãos:**



Luvas de protecção

O material das luvas tem de ser impermeável e resistente ao produto / à substância / preparação.

Uma vez que não foram realizados testes nesta área, não podemos recomendar um determinado tipo de material para as luvas que seja adequado para o produto / a preparação / a mistura de químicos.

Escolher o material das luvas tendo em consideração a durabilidade, a permeabilidade e a degradação.

· **Material das luvas**

A escolha das luvas mais adequadas não depende apenas do material, mas também de outras características qualitativas e varia de fabricante para fabricante.

· **Tempo de penetração no material das luvas**

Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.

· **Protecção dos olhos:** Recomendamos o uso de óculos de protecção nas operações de trasfega.

SECÇÃO 9: Propriedades físico-químicas

· **9.1 Informações sobre propriedades físicas e químicas de base**

· **Informações gerais**

· **Aspeto:**

Forma: Líquido

Cor: Incolor

· **Odor:** Característico

· **Limiar olfactivo:** Não determinado.

· **valor pH:** Não determinado.

· **Mudança do estado:**

Ponto de fusão/ponto de congelação: 0 °C

Ponto de ebulição inicial e intervalo de ebulição: 100 °C

· **Ponto de inflamação:** Não aplicável.

· **Inflamabilidade (sólido, gás):** Não aplicável.

(continuação na página 4)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 11.05.2022

Revisão: 11.05.2022

Nome comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(continuação da página 3)

· Temperatura de decomposição:	Não determinado.
· Temperatura de autoignição:	Não determinado.
· Propriedades explosivas:	O produto não corre o risco de explosão.
· Limites de explosão:	
Inferior:	Não determinado.
Superior:	Não determinado.
· Pressão de vapor em 20 °C:	23 hPa
· Densidade em 20 °C:	1,00016 g/cm ³
· Densidade relativa	Não determinado.
· Densidade de vapor	Não determinado.
· Taxa de evaporação:	Não determinado.
· Solubilidade em / miscibilidade com água:	Completamente misturável.
· Coefficiente de partição: n-octanol/água	Não determinado.
· Viscosidade:	
Dinâmico em 20 °C:	0,952 mPas
Cinemático:	Não determinado.
Água:	99,9 %
VOC (UE)	0,00 %
Percentagem de substâncias sólidas:	0,1 %
· 9.2 Outras informações	Não existe mais nenhuma informação relevante disponível.

SECÇÃO 10: Estabilidade e reactividade

- **10.1 Reactividade** Não existe mais nenhuma informação relevante disponível.
- **10.2 Estabilidade química**
- **Decomposição térmica / condições a evitar:** Não existe decomposição se usado de acordo com as especificações.
- **10.3 Possibilidade de reações perigosas** Não se conhecem reacções perigosas.
- **10.4 Condições a evitar** Não existe mais nenhuma informação relevante disponível.
- **10.5 Materiais incompatíveis:** Não existe mais nenhuma informação relevante disponível.
- **10.6 Produtos de decomposição perigosos:** Não se conhecem produtos de decomposição perigosos.

SECÇÃO 11: Informação toxicológica

- **11.1 Informações sobre os efeitos toxicológicos**
- **Toxicidade aguda** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Efeito de irritabilidade primário:**
- **Corrosão/irritação cutânea** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Lesões oculares graves/irritação ocular**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Sensibilização respiratória ou cutânea**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Avisos adicionais de toxicologia:**
- **Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)**
- **Mutagenicidade em células germinativas**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

(continuação na página 5)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 11.05.2022

Revisão: 11.05.2022

Nome comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(continuação da página 4)

- **Carcinogenicidade** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade reprodutiva** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição única**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição repetida**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Perigo de aspiração** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

SECÇÃO 12: Informação ecológica

- **12.1 Toxicidade**
- **Toxicidade aquática:** Não existe mais nenhuma informação relevante disponível.
- **12.2 Persistência e degradabilidade** Não existe mais nenhuma informação relevante disponível.
- **12.3 Potencial de bioacumulação** Não existe mais nenhuma informação relevante disponível.
- **12.4 Mobilidade no solo** Não existe mais nenhuma informação relevante disponível.
- **Outras indicações ecológicas:**
- **Indicações gerais:** Em geral não causa perigo para a água
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.
- **12.6 Outros efeitos adversos** Não existe mais nenhuma informação relevante disponível.

SECÇÃO 13: Considerações relativas à eliminação

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** Pequenas quantidades podem ser eliminadas juntamente com o lixo doméstico.
- **Embalagens contaminadas:**
- **Recomendação:** Eliminação residual conforme o regulamento dos serviços públicos.
- **Meio de limpeza recomendado:** Água, eventualmente com adição de produtos de limpeza

SECÇÃO 14: Informações relativas ao transporte

- | | |
|---|--|
| · 14.1 Número ONU | |
| · ADR | não aplicável |
| · IMDG, IATA | UN3082 |
| · 14.2 Designação oficial de transporte da ONU | |
| · ADR | não aplicável |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S., MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. |

(continuação na página 6)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31º

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(continuação da página 5)

· 14.3 Classes de perigo para efeitos de transporte

· ADR, ADN

· Classe

não aplicável

· IMDG, IATA



· Class

9 Matérias e objectos perigosos diversos

· Label

9

· 14.4 Grupo de embalagem

· ADR

não aplicável

· IMDG, IATA

III

· 14.5 Perigos para o ambiente:

· Poluente das águas:

Símbolo convencional (peixes e árvore)

· Marcação especial (IATA):

Símbolo convencional (peixes e árvore)

· 14.6 Precauções especiais para o utilizador

Não aplicável.

· N° EMS:

F-A, S-

· 14.7 Transporte a granel em conformidade com o anexo II da Convenção MARPOL e o Código IBC Não aplicável.

· UN "Model Regulation":

não aplicável

SECÇÃO 15: Informação sobre regulamentação

· 15.1 Regulamentação/legislação específica para a substância ou mistura em matéria de saúde, segurança e ambiente

· Diretiva 2012/18/UE

· Substâncias perigosas designadas - ANEXO I A substância não está listada.

· Directiva 2011/65/UE relativa à restrição do uso de determinadas substâncias perigosas em equipamentos eléctricos e electrónicos - Anexo II

Nenhum dos componentes se encontra listado.

· REGULAMENTO (UE) 2019/1148

· Anexo I - PRECURSORES DE EXPLOSIVOS OBJETO DE RESTRIÇÕES (Valor-limite máximo para efeitos de licenciamento nos termos do artigo 5.o, n.o 3)

Nenhum dos componentes se encontra listado.

· Anexo II - PRECURSORES DE EXPLOSIVOS PASSÍVEIS DE PARTICIPAÇÃO

Nenhum dos componentes se encontra listado.

· Regulamento (CE) n.º 273/2004 relativo aos precursores de drogas

Nenhum dos componentes se encontra listado.

· Regulamento (CE) n.º 111/2005 que estabelece regras de controlo do comércio de precursores de drogas entre a Comunidade e países terceiros

Nenhum dos componentes se encontra listado.

(continuação na página 7)

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(continuação da página 6)

· **15.2 Avaliação da segurança química:** Não foi realizada nenhuma Avaliação de Segurança Química.

SECÇÃO 16: Outras informações

As informações fornecidas baseiam-se no estado actual dos nossos conhecimentos, embora não representem uma garantia das propriedades do produto e não fundamentam uma relação contratual.

· **Abreviaturas e acrónimos:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

PT

Паспорт безопасности в соответствии с ГОСТ 30333-2007

Дата печати: 11.05.2022

Дата редактирования: 11.05.2022

1 Идентификация химической продукции и сведения о производителе или поставщике

- **Идентификатор продукта**
- **Торговое наименование:** ***POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)***
- **Артикульный номер:** 19320-B, 19321-B
- **Номер CAS:**
7732-18-5
- **Номер ЕС:**
231-791-2
- **Соответствующие установленные применения вещества или смеси и не рекомендуемые области использования**
Отсутствует какая-либо соответствующая информация.
- **Применение вещества / препарата** Лабораторные химикаты
- **Подробная информация поставщика паспорта безопасности**
- **Производитель / Поставщик:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Отдел, предоставляющий информацию:** Product safety department
- **Номер телефона экстренной связи:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Идентификация опасности (опасностей)

- **Классификация вещества или смеси**
Острая токсичность 5 H313 Может нанести вред при контакте с кожей.
- **Элементы маркировки**
- **Элементы маркировки в соответствии с СГС**
Данное вещество классифицируется и маркируется в соответствии с Согласованной на глобальном уровне системой классификации и маркировки химических веществ (GHS).
- **Пиктограммы, обозначающие опасности** отпадает
- **Сигнальное слово** Осторожно
- **Предупреждения об опасности**
Может нанести вред при контакте с кожей.
- **Меры предосторожности**
Обратиться в ТОКСИКОЛОГИЧЕСКИЙ ЦЕНТР/ к врачу при плохом самочувствии.
- **Другие опасные факторы**
- **Результаты оценки PBT (устойчивое биоаккумулятивное токсическое вещество) и vPvB (очень устойчивое биоаккумулятивное вещество)**
- **PBT:** Неприменимо.
- **vPvB:** Неприменимо.

3 Состав (информация о компонентах)

- **Химическая характеристика: Вещества**
- **Обозначение номера CAS**
7732-18-5 Deionized Water, Reagent Grade A.C.S.

(Продолжение на странице 2)

Паспорт безопасности

в соответствии с ГОСТ 30333-2007

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(Продолжение страницы 1)

- **Идентификационный (-ые) номер (-а)**
- **Номер ЕС: 231-791-2**

4 Меры первой помощи

- **Описание мер первой медицинской помощи**
- **Общие указания:**
Симптомы отравления могут проявиться даже спустя много часов, поэтому имеется необходимость в медицинском надзоре в течение как минимум 48 часов после аварии (несчастного случая).
Нет необходимости в каких-либо специальных мерах.
- **После вдыхания:** Обеспечить доступ свежего воздуха, при недомоганиях обратиться к врачу.
- **После контакта с кожей:** Как правило, продукт не оказывает раздражающего воздействия на кожу.
- **После контакта с глазами:** Промыть открытый глаз под проточной водой в течение нескольких минут.
- **После проглатывания:** При сохранении симптомов обратиться к врачу за консультацией.
- **Указания для врача:**
- **Наиболее важные симптомы и эффекты, как немедленные, так и проявляющиеся впоследствии**
Отсутствует какая-либо соответствующая информация.
- **Указание на необходимость оперативной медицинской помощи и специального режима**
Отсутствует какая-либо соответствующая информация.

5 Меры и средства обеспечения пожаровзрывобезопасности

- **Средства пожаротушения**
- **Надлежащие средства тушения:**
Предпринять меры по тушению пожара, соответствующие окружающим условиям.
- **Особые опасности, создаваемые веществом или смесью**
Отсутствует какая-либо соответствующая информация.
- **Рекомендации для пожарных**
- **Защитное оснащение:** Нет необходимости в каких-либо специальных мерах.

6 Меры по предотвращению и ликвидации аварийных и чрезвычайных ситуаций и их последствий

- **Меры по обеспечению личной безопасности, защитное снаряжение и порядок действий в чрезвычайной ситуации**
Не требуется.
- **Меры по защите окружающей среды:** Разбавить большим количеством воды.
- **Методы и материалы для локализации и очистки:**
Собрать при помощи связывающего жидкость материала (песка, кизельгура, кислотнo-вяжущего средства, универсальных вяжущих средств, опилок).
Утилизировать заражённый материал как отходы в соответствии с Пунктом 13.
Обеспечить достаточную вентиляцию.
- **Ссылки на другие разделы**
Информация по безопасному обращению - в Главе 7.
Информация по индивидуальному защитному снаряжению - в Главе 8.
Информация по утилизации - в Главе 13.

RU

(Продолжение на странице 3)

**Паспорт безопасности
в соответствии с ГОСТ 30333-2007**

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(Продолжение страницы 2)

7 Правила хранения химической продукции и обращения с ней при погрузочно-разгрузочных работах

- **Обращение с веществом:**
- **Меры предосторожности по безопасному обращению**
Нет необходимости в каких-либо специальных мерах.
Обеспечить хорошую вентиляцию / вытяжку на рабочем месте.
Не допускать образования аэрозолей.
- **Указания по защите от пожаров и взрывов:** Нет необходимости в каких-либо специальных мерах.
- **Условия безопасного хранения, включая несовместимости**
- **Хранение:**
- **Требования, предъявляемые к складским помещениям и таре:**
Никаких особенных требований не предъявляется.
- **Указания по совместимости с другими веществами при хранении:** Не требуется.
- **Дальнейшие данные по условиям хранения:** Ни одного.
- **Характерное конечное применение (или применения)**
Отсутствует какая-либо соответствующая информация.

8 Средства контроля за опасным воздействием и средства индивидуальной защиты

- **Дополнительные указания по структуре технических устройств:**
Никаких дополнительных данных; см. Пункт 7.
- **Параметры контроля**
- **Составляющие компоненты с предельными значениями, требующие мониторинга на рабочих местах:**
Не требуется.
- **Дополнительные указания:**
В качестве основы послужили списки, являвшиеся на момент составления актуальными.
- **Требования по охране труда и меры по обеспечению безопасности персонала**
- **Средства индивидуальной защиты:**
- **Общие меры по защите от воздействия и гигиене:**
Держать подальше от продуктов питания, напитков и корма для животных.
Избегать контакта с глазами и с кожей.
- **Защита органов дыхания:**
При кратковременном контакте с веществом или при воздействии вещества низкой концентрации пользоваться фильтрующим устройством для защиты органов дыхания. При интенсивном или более продолжительном контакте следует воспользоваться автономным устройством защиты органов дыхания.
- **Защита рук:**



Защитные перчатки (рукавицы).

Материал перчаток / рукавиц должен быть устойчивым к воздействию продукта / вещества / препарата и не пропускать их.

Никаких рекомендаций в отношении материала перчаток / рукавиц, пригодных для применения в ходе работы с продуктом / препаратом / смесью химикатов дать нельзя, так как никаких испытаний в этом отношении не проводилось.

Выбор материала перчаток / рукавиц производится с учётом времени прорыва, степени проницаемости и эрозии.

(Продолжение на странице 4)

Паспорт безопасности

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(Продолжение страницы 3)

- **Материал перчаток / рукавиц**
Выбор подходящих перчаток / рукавиц определяется не только материалом, но также и другими качественными особенностями, причём между различными производителями существует большая разница.
- **Период проницаемости материала перчаток / рукавиц.**
Необходимо осведомиться у производителя защитных перчаток / рукавиц о точном времени прорыва и придерживаться его.
- **Защита глаз:** При переливании продукта рекомендуется надеть защитные очки.

9 Физико-химические свойства

· **Информация по основным физическим и химическим свойствам**

· **Общая информация**

· **Внешний вид:**

· Форма:	Жидкость
· Цвет:	Бесцветное
· Запах:	Характерно
· Порог запаха:	Не определено.

· **Значение pH:** Не определено.

· **Изменение состояния**

· Точка плавления / интервал температур плавления:	0 °C
· Точка кипения / интервал температур кипения:	100 °C

· **Температурная точка вспышки:** Неприменимо.

· **Воспламеняемость (твёрдое, газообразное вещество):** Неприменимо.

· **Температура распада:** Не определено.

· **Самовоспламеняемость:** Не определено.

· **Взрывоопасность:** Продукт не является взрывоопасным.

· **Границы взрываемости:**

· Нижняя:	Не определено.
· Верхняя:	Не определено.

· **Давление пара при 20 °C:** 23 гПа

· Плотность при 20 °C:	1,00016 г/см ³
· Относительная плотность	Не определено.
· Плотность пара	Не определено.
· Скорость испарения	Не определено.

· **Растворимость в / Смешиваемость с водой:** Полностью смешиваемо.

· **Коэффициент распределения (n-октанол / вода):** Не определено.

· **Вязкость:**

· Динамическая при 20 °C:	0,952 mPas
· Кинематическая:	Не определено.
· Вода:	99,9 %
· VOC (EC)	0,00 %

(Продолжение на странице 5)

Паспорт безопасности в соответствии с ГОСТ 30333-2007

Дата печати: 11.05.2022

Дата редактирования: 11.05.2022

Торговое наименование: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(Продолжение страницы 4)

Содержание твёрдых тел:	0,1 %
Другая информация	Отсутствует какая-либо соответствующая информация.

10 Стабильность и реакционная способность

- **Реакционная способность** Отсутствует какая-либо соответствующая информация.
- **Химическая стабильность**
- **Термический распад / условия, которых следует избегать:**
При использовании в соответствии с предписаниями не происходит никакого распада.
- **Возможность опасных реакций** Неизвестно ни о каких опасных реакциях.
- **Условия, вызывающие опасные изменения** Отсутствует какая-либо соответствующая информация.
- **Несовместимые материалы:** Отсутствует какая-либо соответствующая информация.
- **Опасные продукты распада:** Неизвестно ни о каких опасных продуктах распада.

11 Информация о токсичности

- **Информация по токсикологическому воздействию**
- **Острая токсичность:**
- **Первичное раздражающее воздействие:**
- **на кожу:** Нет раздражающего воздействия.
- **на глаза:** Нет раздражающего воздействия.
- **Сенсибилизация:** Неизвестно о наличии сенсибилизирующего воздействия.
- **Дополнительные токсикологические указания:**
При обращении и применении согласно назначению продукт, исходя из нашего опыта и предоставленной нам информации, не оказывает никакого вредящего здоровью воздействия.
На основании списков ЕС в их последней (актуальной) редакции вещество не подлежит обязательной маркировке.

12 Информация о воздействии на окружающую среду

- **Токсичность**
- **Акватоксичность:** Отсутствует какая-либо соответствующая информация.
- **Стойкость и склонность к деградации** Отсутствует какая-либо соответствующая информация.
- **Поведение в экологических системах:**
- **Биоаккумулятивный потенциал** Отсутствует какая-либо соответствующая информация.
- **Подвижность в грунте** Отсутствует какая-либо соответствующая информация.
- **Дополнительные экологические указания:**
- **Общие указания:** В целом продукт для воды не вреден
- **Результаты оценки PBT (устойчивое биоаккумулятивное токсическое вещество) и vPvB (очень устойчивое биоаккумулятивное вещество)**
- **PBT:** Неприменимо.
- **vPvB:** Неприменимо.
- **Другие вредные эффекты** Отсутствует какая-либо соответствующая информация.

RU

(Продолжение на странице 6)

Паспорт безопасности
в соответствии с ГОСТ 30333-2007

Дата печати: 11.05.2022

Дата редактирования: 11.05.2022

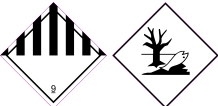
Торговое наименование: **POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)**

(Продолжение страницы 5)

13 Рекомендации по удалению отходов (остатков)

- Методы обработки отходов
- Рекомендация: Небольшие количества могут быть утилизированы совместно с бытовыми отходами.
- Неочищенные упаковки:
- Рекомендация: Утилизация должна быть осуществлена в соответствии с предписаниями компетентных служб.
- Рекомендуемые чистящие средства: Вода - если необходимо, с добавлением чистящих средств.

14 Информация при перевозках (транспортировании)

· Номер UN	
· ADR	отпадает
· IMDG, IATA	UN3082
· Собственное транспортное наименование ООН	
· ADR	отпадает
· IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT
· IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
· классов опасности транспорта	
· ADR, ADN	
· Класс	отпадает
· IMDG, IATA	
	
· Class	9 Различные опасные вещества и изделия
· Label	9
· Группа упаковки	
· ADR	отпадает
· IMDG, IATA	III
· Экологические риски:	
· Загрязнитель морской среды:	Символ (рыба и дерево)
· Особые отметки (IATA):	Символ (рыба и дерево)
· Особые меры предосторожности для пользователей	Неприменимо.
· Номер EMS:	F-A, S-
· Транспортировка навалом в соответствии с Приложением II MARPOL73/78 (Международная конвенция по предотвращению загрязнения вод с судов) и IBC Code (Международный кодекс перевозок опасных химических грузов наливом)	Неприменимо.

(Продолжение на странице 7)

Паспорт безопасности

в соответствии с ГОСТ 30333-2007

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(Продолжение страницы 6)

· **UN "Model Regulation":** отпадает

15 Информация о национальном и международном законодательстве

· **Нормы безопасности, правила охраны труда и экологические нормативы или стандарты, действующие для вещества или смеси**

Отсутствует какая-либо соответствующая информация.

· **Реестр евразийской промышленной продукции**

Все компоненты указаны в списке.

· **Элементы маркировки в соответствии с СГС**

Данное вещество классифицируется и маркируется в соответствии с Согласованной на глобальном уровне системой классификации и маркировки химических веществ (GHS).

· **Пиктограммы, обозначающие опасности** отпадает

· **Сигнальное слово** *Осторожно*

· **Предупреждения об опасности**

Может нанести вред при контакте с кожей.

· **Меры предосторожности**

Обратиться в ТОКСИКОЛОГИЧЕСКИЙ ЦЕНТР/ к врачу при плохом самочувствии.

· **Оценка химической безопасности:** Оценка химической безопасности не проведена.

16 Дополнительная информация

Данные опираются на актуальные знания, однако они не являются гарантией каких-либо конкретных свойств продукта и не устанавливают никаких действующих с юридической точки зрения договорных отношений.

· **Контактная информация:**

· **Аббревиатуры и акронимы:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Острая токсичность 5: Acute toxicity – Category 5

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 11.05.2022

Revisión: 11.05.2022

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

- **1.1 Identificador del producto**
- **Nombre comercial:** *POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)*
- **Número del artículo:** 19320-B, 19321-B
- **Número CAS:**
7732-18-5
- **Número CE:**
231-791-2
- **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**
No existen más datos relevantes disponibles.
- **Utilización del producto / de la elaboración** *Sustancias químicas de laboratorio*
- **1.3 Datos del proveedor de la ficha de datos de seguridad**
- **Fabricante/distribuidor:**
*Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com*
- **Aname**
*C/ Perez Galdos no. 2
28693 Quijorna
Madrid, Spain
Tel: +34.91.816.89.50
Fax: +34.91.816.85.94
email: ventas@aname.es*
- **Área de información:** *Product safety department*
- **1.4 Teléfono de emergencia:**
*ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887*

SECCIÓN 2: Identificación de los peligros

- **2.1 Clasificación de la sustancia o de la mezcla**
- **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**
La sustancia no se ha clasificado de conformidad con el reglamento CLP.
- **2.2 Elementos de la etiqueta**
- **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008** *suprimido*
- **Pictogramas de peligro** *suprimido*
- **Palabra de advertencia** *suprimido*
- **Indicaciones de peligro** *suprimido*
- **2.3 Otros peligros**
- **Resultados de la valoración PBT y mPmB**
- **PBT:** *No aplicable.*
- **mPmB:** *No aplicable.*

SECCIÓN 3: Composición/información sobre los componentes

- **3.1 Caracterización química: Sustancias**
- **Denominación N° CAS**
7732-18-5 agua destilada, de conductividad o de igual grado de pureza

(se continua en página 2)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 11.05.2022

Revisión: 11.05.2022

Nombre comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(se continua en página 1)

- **Número(s) de identificación**
- **Número CE:** 231-791-2

SECCIÓN 4: Primeros auxilios

- **4.1 Descripción de los primeros auxilios**
- **Instrucciones generales:**
Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.
No se precisan medidas especiales.
- **En caso de inhalación del producto:** Suministrar aire fresco. En caso de trastornos, consultar al médico.
- **En caso de contacto con la piel:** Por regla general, el producto no irrita la piel.
- **En caso de con los ojos:** Limpiar los ojos abiertos durante varios minutos con agua corriente.
- **En caso de ingestión:** Consultar un médico si los trastornos persisten.
- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.
- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente**
No existen más datos relevantes disponibles.

SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:** Combatir los incendios con medidas adaptados al ambiente circundante.
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia** No es necesario.
- **6.2 Precauciones relativas al medio ambiente:** Diluir con mucha agua.
- **6.3 Métodos y material de contención y de limpieza:**
Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).
Desechar el material contaminado como vertido según ítem 13.
Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**
Ver capítulo 7 para mayor información sobre una manipulación segura.
Ver capítulo 8 para mayor información sobre el equipo personal de protección.
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**
No se requieren medidas especiales.
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:** No se requieren medidas especiales.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.

(se continua en página 3)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 11.05.2022

Revisión: 11.05.2022

Nombre comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(se continua en página 2)

- **Indicaciones adicionales sobre las condiciones de almacenamiento:** Ningunos, -as.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

SECCIÓN 8: Controles de exposición/protección individual

- **8.1 Parámetros de control**
- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**
Sin datos adicionales, ver punto 7.
- **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:** Nulo.
- **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.
- **8.2 Controles de la exposición**
- **Equipo de protección individual:**
- **Medidas generales de protección e higiene:**
Mantener alejado de alimentos, bebidas y alimentos para animales.
Evitar el contacto con los ojos y la piel.
- **Protección respiratoria:**
Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.
- **Protección de manos:**



Guantes de protección

- El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.
Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.
Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.
- **Material de los guantes**
La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro.
 - **Tiempo de penetración del material de los guantes**
El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.
 - **Protección de ojos:** Se recomienda el uso de gafas de protección durante el trasvase del producto.

SECCIÓN 9: Propiedades físicas y químicas

- **9.1 Información sobre propiedades físicas y químicas básicas**
- **Datos generales**
- **Aspecto:**
- **Forma:** Líquido
- **Color:** Incoloro
- **Olor:** Característico
- **Umbral olfativo:** No determinado.
- **valor pH:** No determinado.
- **Cambio de estado**
- **Punto de fusión/punto de congelación:** 0 °C
- **Punto inicial de ebullición e intervalo de ebullición:** 100 °C

(se continua en página 4)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 11.05.2022

Revisión: 11.05.2022

Nombre comercial: **POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)**

(se continua en página 3)

· Punto de inflamación:	No aplicable.
· Inflamabilidad (sólido, gas):	No aplicable.
· Temperatura de descomposición:	No determinado.
· Temperatura de auto-inflamación:	No determinado.
· Propiedades explosivas:	El producto no es explosivo.
· Límites de explosión:	
Inferior:	No determinado.
Superior:	No determinado.
· Presión de vapor a 20 °C:	23 hPa
· Densidad a 20 °C:	1,00016 g/cm ³
· Densidad relativa	No determinado.
· Densidad de vapor	No determinado.
· Tasa de evaporación:	No determinado.
· Solubilidad en / miscibilidad con agua:	Completamente mezclable.
· Coefficiente de reparto: n-octanol/agua:	No determinado.
· Viscosidad:	
Dinámica a 20 °C:	0,952 mPas
Cinemática:	No determinado.
Agua:	99,9 %
VOC (CE)	0,00 %
Contenido de cuerpos sólidos:	0,1 %
· 9.2 Otros datos	No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** No existen más datos relevantes disponibles.
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Lesiones o irritación ocular graves**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Sensibilización respiratoria o cutánea**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

(se continua en página 5)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 11.05.2022

Revisión: 11.05.2022

Nombre comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(se continua en página 4)

- **Indicaciones toxicológicas adicionales:**
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:** Por regla general, no es peligroso para el agua
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** Pequeñas cantidades pueden ser desechadas con la basura doméstica.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.
- **Producto de limpieza recomendado:** Agua, eventualmente añadiendo productos de limpieza.

SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR** suprimido
- **IMDG, IATA** UN3082
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** suprimido
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S., MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S.

(se continua en página 6)



Ficha de datos de seguridad
según 1907/2006/CE, Artículo 31

fecha de impresión 11.05.2022

Revisión: 11.05.2022

Nombre comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(se continua en página 5)

<ul style="list-style-type: none"> · 14.3 Clase(s) de peligro para el transporte · ADR, ADN · Clase 	<p>suprimido</p>
<ul style="list-style-type: none"> · IMDG, IATA <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> · Class · Label 	<p>9 Materias y objetos peligrosos diversos 9</p>
<ul style="list-style-type: none"> · 14.4 Grupo de embalaje · ADR · IMDG, IATA 	<p>suprimido III</p>
<ul style="list-style-type: none"> · 14.5 Peligros para el medio ambiente: · Contaminante marino: · Marcado especial (IATA): 	<p>Símbolo (pez y árbol) Símbolo (pez y árbol)</p>
<ul style="list-style-type: none"> · 14.6 Precauciones particulares para los usuarios · Número EMS: 	<p>No aplicable. F-A, S-</p>
<ul style="list-style-type: none"> · 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC 	<p>No aplicable.</p>
<ul style="list-style-type: none"> · "Reglamentación Modelo" de la UNECE: 	<p>suprimido</p>

SECCIÓN 15: Información reglamentaria

<ul style="list-style-type: none"> · 15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla · Directiva 2012/18/UE · Sustancias peligrosas nominadas - ANEXO I No contiene la sustancia.
<ul style="list-style-type: none"> · Directiva 2011/65/UE sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos - Anexo II <p>ninguno de los componentes está incluido en una lista</p>
<ul style="list-style-type: none"> · REGLAMENTO (UE) 2019/1148
<ul style="list-style-type: none"> · Anexo I - PRECURSORES DE EXPLOSIVOS RESTRINGIDOS (Valor límite superior a efectos de la concesión de licencias con arreglo al artículo 5, apartado 3) <p>ninguno de los componentes está incluido en una lista</p>
<ul style="list-style-type: none"> · Anexo II - PRECURSORES DE EXPLOSIVOS NOTIFICABLES <p>ninguno de los componentes está incluido en una lista</p>
<ul style="list-style-type: none"> · Reglamento (CE) no 273/2004 sobre precursores de drogas <p>ninguno de los componentes está incluido en una lista</p>
<ul style="list-style-type: none"> · Reglamento (CE) N o 111/2005 por el que establecen normas para la vigilancia del comercio de precursores de drogas entre la Comunidad y terceros países <p>ninguno de los componentes está incluido en una lista</p>

(se continua en página 7)

Ficha de datos de seguridad
según 1907/2006/CE, Artículo 31

fecha de impresión 11.05.2022

Revisión: 11.05.2022

Nombre comercial: POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(se continua en página 6)

· **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

· **Abreviaturas y acrónimos:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ES

แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.11

การปรับปรุงใหม่ : 2022.05.11

1 การบ่งชี้สารเดี่ยวหรือสารผสม และผู้ผลิต

- 1.1 ลักษณะเฉพาะของผลิตภัณฑ์
- ชื่อทางการค้า **POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)**
- เลขที่รายชื่อ 19320-B, 19321-B
- เลขที่ CAS:
7732-18-5
- จำนวน EC:
231-791-2
- 1.2 สารหรือสารผสมที่เกี่ยวข้องที่ระบุให้ใช้และไม่ควรให้ใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- การประยุกต์ใช้สาร/ การทำ เคมีภัณฑ์ห้องทดลอง
- 1.3 รายละเอียดของผู้จัดหาข้อมูลด้านความปลอดภัย
- ผู้ผลิต/ ผู้จัดหา
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- ข้อมูลรายละเอียดเพิ่มเติมหาได้จาก Product safety department
- 1.4 หมายเลขโทรศัพท์ฉุกเฉิน:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 การบ่งชี้ความเป็นอันตราย

- 2.1 การจำแนกประเภทของสารหรือสารผสม
- การแบ่งประเภทตามข้อบังคับ (จีซี) เลขที่ 1272/2008 สารไม่ถูกจัดประเภทตามข้อบังคับของ CLP
- 2.2 องค์ประกอบของฉลาก
- ฉลากตามระเบียบ (EC) เลขที่ 1272/2008 ยกเลิก
- ภาพสัญลักษณ์สิ่งที่เป็นอันตราย ยกเลิก
- สัญลักษณ์คำ ยกเลิก
- ประกาศสิ่งที่เป็นอันตราย ยกเลิก
- 2.3 อันตรายอื่นๆ
- ผลของ PBT และการประเมิน vPvB
- PBT: ไม่สามารถใช้ได้
- vPvB: ไม่สามารถใช้ได้

3 องค์ประกอบและข้อมูลเกี่ยวกับส่วนผสม

- 3.1 คุณลักษณะทางเคมี: สาร
- การระบุเลขที่ CAS
7732-18-5 Deionized Water, Reagent Grade A.C.S.
- เลขที่ที่ระบุ
- จำนวน EC: 231-791-2

4 มาตรการปฐมพยาบาล

- 4.1 คำอธิบายถึงมาตรการปฐมพยาบาล
- ข้อมูลรายละเอียดทั่วไป
อาการจากพิษอาจเกิดขึ้นหลังจากนั้นหลายชั่วโมงดังนั้นจะต้องเฝ้าติดตามอาการทางการแพทย์อย่างน้อย 48 ชั่วโมงหลังจากอุบัติเหตุ
ไม่มีมาตรการพิเศษ

(ต่อหน้า 2)

แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.11

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ชื่อทางการค้า POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(ต่อหน้า 1)

- หลังจากการสูดหายใจเข้าไป หอบบริเวณที่มีอากาศบริสุทธิ์ปรึกษาแพทย์ในกรณีมีอาการไม่ดีขึ้น
- หลังจากการสัมผัสผิวหนัง โดยทั่วไปผลิตภัณฑ์ไม่ก่อความระคายเคืองต่อผิวหนัง
- หลังจากการสัมผัสสุกตา ชะตาที่เปิดอยู่ใต้น้ำที่ก่าสิ่งไหลเป็นเวลาหลายนาที
- หลังจากการกลืนเข้าไป: ถ้าอาการยังไม่บรรเทาให้ปรึกษาแพทย์
- 4.2 อาการสำคัญส่วนใหญ่และผลกระทบ ทั้งชนิดเฉียบพลันและค่อยๆ แสดงอาการ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 4.3 ข้อบ่งชี้ของอาการที่ต้องเข้ารับการรักษาจากแพทย์ทันทีและการบำบัดพิเศษที่จำเป็น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

5 มาตรการผจญเพลิง

- 5.1 สารที่ใช้ดับเพลิง
- สารดับเพลิงที่เหมาะสม ใช้วิธีดับเพลิงที่เหมาะสมกับสภาพแวดล้อม
- 5.2 อันตรายเฉพาะอย่างที่เกิดจากสารหรือส่วนผสม ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 5.3 คำแนะนำสำหรับพนักงานดับเพลิง
- อุปกรณ์ป้องกันภัย ไม่ต้องมีมาตรการพิเศษ

6 มาตรการจัดการเมื่อมีการหกหรือไหลของสาร

- 6.1 การป้องกันส่วนบุคคล อุปกรณ์ป้องกัน และขั้นตอนดำเนินการเมื่อเกิดกรณีฉุกเฉิน ไม่ได้กำหนด
- 6.2 การให้ความคุ้มครองสิ่งแวดล้อมล่วงหน้า: ทำให้เจือจางด้วยน้ำมากๆ
- 6.3 วิธีดำเนินการและวัสดุสำหรับการบรรจุและการทำความสะอาด:
ดูดซับด้วยวัสดุที่สามารถยึดของเหลวไว้ (ทรายไดอะโตไมท์ด้วยดีเคาะกรดตัวยึดทั่วๆ ไปขี้เลื่อย)
ทิ้งวัสดุที่ปนเปื้อนเป็นของเสียตามรายการในบัญชี 13
ตรวจให้แน่ใจว่ามีกระเบยอากาศที่ดีพอ
- 6.4 การอ้างอิงถึงส่วนอื่น
ดูข้อมูลรายละเอียดเรื่องความปลอดภัยในการขนถ่ายจากส่วนที่ 7
ดูข้อมูลรายละเอียดเรื่องอุปกรณ์ป้องกันส่วนบุคคลจากส่วนที่ 8
ดูข้อมูลรายละเอียดเรื่องการจัดเก็บจากส่วนที่ 13

7 การขนถ่าย เคลื่อนย้าย ใช้งาน และเก็บรักษา

- 7.1 การป้องกันล่วงหน้าสำหรับการจัดการด้านความปลอดภัย
ไม่มีมาตรการพิเศษ
ทำให้แน่ใจว่าสถานที่ทำงานมีการระบายอากาศ/ไอเสียที่ดี
ป้องกันการเกิดละอองสารฟุ้ง
- ข้อมูลรายละเอียดเกี่ยวกับการป้องกันอัคคีภัยและการระเบิด ไม่มีมาตรการพิเศษ
- 7.2 เงื่อนไขในการเก็บรักษาอย่างปลอดภัย, รวมถึงสิ่งที่เข้ากันไม่ได้ใดๆ
· การจัดเก็บ
· ข้อกำหนดที่ต้องปฏิบัติตามสำหรับห้องเก็บและภาชนะบรรจุ ไม่มีข้อกำหนดพิเศษ
· ข้อมูลรายละเอียดด้านการจัดเก็บในสถานที่จัดเก็บรวม ไม่ได้กำหนด
· ข้อมูลรายละเอียดเพิ่มเติมด้านสภาพการจัดเก็บ ไม่มี
- 7.3 การระบุถึงการสิ้นสุดการใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

8 การควบคุมการรับสัมผัสและการป้องกันส่วนบุคคล

- 8.1 การควบคุมตัวแปร
- ข้อมูลรายละเอียดเสริมสำหรับการออกแบบสิ่งอำนวยความสะดวกทางเทคนิค ไม่มีข้อมูลนอกเหนือจากนี้ดูรายการ 7
- ส่วนผสมพร้อมคำขอขอบเขตที่ต้องเฝ้าดูในสถานที่ปฏิบัติงาน ไม่ได้กำหนด
- ข้อมูลรายละเอียดเสริม รายการถูกต้องระหว่างที่จัดทำโดยอาศัยการชี้แจงเป็นหลัก

(ต่อหน้า 3)

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แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.11

การปรับปรุงใหม่ : 2022.05.11

ชื่อทางการค้า POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(ต่อหน้า 2)

- 8.2 การควบคุมการสัมผัส
- อุปกรณ์ป้องกันส่วนบุคคล
- มาตรการการป้องกันและสุขอนามัยทั่วไป
 - เก็บให้ห่างจากสิ่งของที่เป็นอาหารเครื่องดื่มและอาหารสัตว์
 - หลีกเลี่ยงการสัมผัสถูกตาและผิวหนัง
- การป้องกันการสูดหายใจเข้าไป
 - ในกรณีที่อยู่เป็นเวลาสั้นหรืออากาศเป็นพิษระดับต่ำใช้หน้ากากกรองเพื่อช่วยหายใจในกรณีที่มีความเข้มข้นสูงหรืออยู่เป็นเวลานานให้ใช้เครื่องป้องกันที่มีอุปกรณ์ช่วยหายใจในตัว
- การป้องกันมือ



ถุงมือป้องกัน

- วัสดุของถุงมือจะต้องไม่ให้อากาศผ่านเข้าออกและทนทานต่อผลิตภัณฑ์/ สาร/ การผลิต
- เนื่องจากขาดการทดสอบจึงไม่มีคำแนะนำสำหรับวัสดุที่ใช้ทำถุงมือสำหรับผลิตภัณฑ์/ การผลิต/ ของผสมเคมี
- เลือกวัสดุสำหรับถุงมือโดยพิจารณาจากเวลาที่ใช้ในการซึมผ่านอัตราการแพร่และการเสื่อม
- วัสดุที่ใช้ทำถุงมือ การเลือกใช้ถุงมือที่เหมาะสมไม่เพียงแต่ขึ้นอยู่กับวัสดุแต่ยังขึ้นกับมาตรฐานด้านคุณภาพและข้อแตกต่างระหว่างผู้ผลิตแต่ละแห่ง
- เวลาที่ใช้ในการทะลุผ่านวัสดุที่ใช้ทำถุงมือ ผู้ผลิตถุงมือป้องกันจะต้องทดสอบหาเวลาแน่นอนที่ใช้ในการทะลุผ่านและจะต้องมีการตรวจสอบติดตาม
- การป้องกันตา แวนตาที่แนะนำให้ใช้ระหว่างการถ่ายเต็ม

9 คุณสมบัติทางกายภาพและทางเคมี

· 9.1 ข้อมูลคุณสมบัติพื้นฐานทางกายภาพและเคมี

· ข้อมูลรายละเอียดทั่วไป

· ลักษณะ :

รูปสีฐาน
สี

ของเหลว
ไม่มีสี

· กลิ่น

ลักษณะพิเศษ

· เกณฑ์กลิ่น :

ไม่ได้กำหนดไว้.

· ค่า pH

ไม่ได้กำหนดไว้.

· การเปลี่ยนแปลงสถานะ

จุดหลอมเหลว/ ขอบเขตการหลอมละลาย
จุดเดือด/ ขอบเขตการเดือด

0 °C
100 °C

· จุดวาบไฟ

ไม่สามารถใช้ได้

· ความสามารถติดไฟ (ของแข็งแก๊ส)

ไม่สามารถใช้ได้

· จุดหนุมิสลายตัว

ไม่ได้กำหนดไว้.

· การเผาไหม้ด้วยตัวเอง

ไม่ได้กำหนดไว้.

· อันตรายนจากการระเบิด

ผลิตภัณฑ์ไม่ได้มีอันตรายนจากการระเบิด

· ขอบเขตการระเบิด

ขั้นต่ำ
ขั้นสูง

ไม่ได้กำหนดไว้.
ไม่ได้กำหนดไว้.

· ความดันไอ ที่ 20 °C

23 hPa

· ความหนาแน่น ที่ 20 °C

1.00016 g/cm³

· ความหนาแน่นสัมพัทธ์

ไม่ได้กำหนดไว้.

· ความหนาแน่นของไอ

ไม่ได้กำหนดไว้.

(ต่อหน้า 4)

แผนข้อมูลความปลอดภัย ตาม GHS

วันที่พิมพ์ 2022.05.11

การปรับปรุงใหม่ : 2022.05.11

ชื่อทางการค้า POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(ต่อหน้า 3)

· อัตราการระเหย	ไม่ได้กำหนดไว้.
· ความสามารถในการละลายใน ความสามารถผสมเป็นสารละลายเนื้อเดียวทุกส่วนผสมกับ น้ำ	/ ผสมกันได้อย่างเต็มที่
· สมบัติการแยกตัว (เอ็น-ออกทานอล/น้ำ)	ไม่ได้กำหนดไว้.
· ความหนืด (ไดนามิก) พลศาสตร์ ที่ 20 °C	0.952 mPas
(คิเนเมติก) จลนศาสตร์	ไม่ได้กำหนดไว้.
น้ำ	99.9 %
VOC (EC)	0.00 %
ส่วนประกอบที่เป็นของแข็ง	0.1 %
· 9.2 ข้อมูลอื่นๆ	ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

10 ความเสถียรและการเกิดปฏิกิริยา

- 10.1 ปฏิกิริยาโต้ตอบ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.2 เสถียรภาพทางเคมี
- การสลายตัวด้วยความร้อน / เสื่อมโซ่ที่ต้องหลีกเลี่ยง ไม่มีการสลายตัวถ้าใช้ตามรายละเอียดที่ระบุไว้
- 10.3 ความเป็นไปได้ของการเกิดปฏิกิริยาอันตราย ไม่มีปฏิกิริยาเป็นอันตรายที่รู้จัก
- 10.4 เสื่อมโซ่เพื่อการหลีกเลี่ยง ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.5 วัสดุที่เข้ากันไม่ได้: ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.6 อันตรายจากการสลายตัวของผลิตภัณฑ์: ไม่มีสารจากการสลายตัวที่เป็นอันตรายที่รู้จัก

11 ข้อมูลด้านพิษวิทยา

- 11.1 ข้อมูลเกี่ยวกับผลกระทบทางพิษวิทยา
- ความเป็นพิษอย่างสาหัส: Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- อาการระคายเคืองเบื้องต้น
- บบผิวหนัง Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- ที่ดวงตา Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- การทำให้แพ้ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- ข้อมูลรายละเอียดเสริมเกี่ยวกับพิษวิทยา
- ผลกระทบ CMR (การทำให้เกิดมะเร็งการผ่าเหล่าและพิษต่อการสืบพันธุ์)
- การผ่าเหล่าในเซลล์สืบพันธุ์ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- การกระตุ้นให้เกิดมะเร็ง Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- พิษต่อระบบสืบพันธุ์ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- ความเป็นพิษต่ออวัยวะเป้าหมายเฉพาะ – การสัมผัสในครรภ์ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- ความเป็นพิษต่ออวัยวะเป้าหมายเฉพาะ – การสัมผัสฆ่าเหล่า Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.
- อันตรายต่อระบบหายใจ Berdasarkan data yang ada, kriteria klasifikasi tidak dipenuhi.

12 ข้อมูลด้านนิเวศวิทยา

- 12.1 ความเป็นพิษ
- ความเป็นพิษที่เกี่ยวกับน้ำ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.2 การคงอยู่และการย่อยสลาย ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.3 การสะสมทางชีวภาพที่อาจเกิดขึ้น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.4 การเปลี่ยนแปลงในดิน ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

(ต่อหน้า 5)

-TH-

แผนข้อมูลความปลอดภัย
ตาม GHS

วันที่พิมพ์ 2022.05.11

การปรับปรุงใหม่ : 2022.05.11

ชื่อทางการค้า POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)


(ต่อหน้า 4)

- ข้อมูลรายละเอียดเสริมเกี่ยวกับนิเวศวิทยา
- หมายเหตุทั่วไป โดยทั่วไปไม่เป็นอันตรายต่อน้ำ
- 12.5 ผลของ PBT และการประเมิน vPvB
- PBT: ไม่สามารถใช้ได้
- vPvB: ไม่สามารถใช้ได้
- 12.6 ผลข้างเคียงอื่นๆ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

13 ข้อพิจารณาในการกำจัด

- 13.1 วิธีการกำจัดของเสีย
- คำแนะนำ ปริมาณน้อยๆสามารถทิ้งพร้อมกับของเสียจากครัวเรือน
- ภาชนะบรรจุที่ยังไม่ได้ล้างทำความสะอาด
- คำแนะนำ การกำจัดจะต้องทำตามกฎระเบียบที่เป็นทางการ
- สารทำความสะอาดที่แนะนำ น้ำล้างน้ำเป็นใช้คู่กับสารทำความสะอาด

14 ข้อมูลการขนส่ง

- 14.1 เลขที่ UN
 - ADR ยกเลิก
 - IMDG, IATA UN3082
- 14.2 ชื่อการจัดส่งสินค้าที่เหมาะสมของ UN
 - ADR ยกเลิก
 - IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT
 - IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
- 14.3 ชั้นเรียนอันตรายจากการขนส่ง
 - ADR, ADN
 - ประเภท ยกเลิก
 - IMDG, IATA
- 
 - Class 9 สารอันตรายและสิ่งของเปิดเตลิด
 - Label 9
- 14.4 กลุ่มของภาชนะบรรจุ
 - ADR ยกเลิก
 - IMDG, IATA III
- 14.5 สิ่งที่เป็นอันตรายต่อสภาพแวดล้อม
 - สารที่เป็นพิษต่อทะเล สัตว์ลักษณะ (ปลาและต้นไม้)
 - เฉพาะการติดฉลาก (IATA): สัตว์ลักษณะ (ปลาและต้นไม้)
- 14.6 การป้องกันพิเศษล่วงหน้าสำหรับผู้ใช้
 - หมายเลข EMS ไม่สามารถใช้ได้
 - หมายเลข EMS F-A, S-
- 14.7 การขนส่งขนาดใหญ่ตามภาคผนวก 2 ของ MARPOL73/78 และรหัส IBC
 - รหัส IBC ไม่สามารถใช้ได้

(ต่อหน้า 6)

แผนข้อมูลความปลอดภัย
ตาม GHS

วันที่พิมพ์ 2022.05.11

การปรับปรุงใหม่ : 2022.05.11

ชื่อทางการค้า POLY-L-LYSINE 0.1% AQUEOUS SOLUTION (MW >70,000)

(ต่อหน้า 5)

· “กฎระเบียบต้นแบบ” ของ UN ยกเลิก

15 ข้อมูลด้านกฎข้อบังคับ

- 15.1 ความปลอดภัย สุขภาพและระเบียบ/กฎหมายสิ่งแวดล้อมโดยเฉพาะของสารหรือสารผสม ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- บัญชีรายชื่อวัตถุอันตราย

· **กรมวิชาการเกษตร**

ไม่มีส่วนผสมได้อยู่ในรายการ

· **กรมประมง**

ไม่มีส่วนผสมได้อยู่ในรายการ

· **กรมปศุสัตว์**

ไม่มีส่วนผสมได้อยู่ในรายการ

· **อาหารและยา**

ไม่มีส่วนผสมได้อยู่ในรายการ

· **กรมโรงงานอุตสาหกรรม**

ไม่มีส่วนผสมได้อยู่ในรายการ

· **กรมธุรกิจพลังงาน**

ไม่มีส่วนผสมได้อยู่ในรายการ

· **ทำเนียบสารเคมีที่มีอยู่แล้วของประเทศไทย (กรมโรงงานอุตสาหกรรม)**

7732-18-5 | Deionized Water, Reagent Grade A.C.S.

- 15.2 การประเมินความปลอดภัยของสารเคมี: ไม่ได้ดำเนินการตามการประเมินความปลอดภัยของสารเคมี

16 ข้อมูลอื่นๆ

ข้อมูลรายละเอียดนี้ใช้ความรู้ปัจจุบันของเราเป็นหลักอย่างไรก็ตามข้อมูลนี้ไม่ใช่การรับประกันจากสถาบันต่อคุณสมบัติเฉพาะของผลิตภัณฑ์และไม่สามารถยืนยันการบังคับใช้ตามกฎหมายที่เกี่ยวข้องกับสัญญา

· **คำย่อและชื่อย่อที่ผสมขึ้น**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative