

According to the UN GHS revision 8

Version: 1.0 Creation Date: July 15, 2019 Revision Date: July 15, 2019

| - | T 1 / / // / / | | | | 5 / | |
|-----|---|---|--------------------------------|--------------------------------|---------------|--|
| 1. | Identification | | | | | |
| 1.1 | GHS Product identifie | r | | | | |
| | Product name | Bis-PEG10-NHS ester | | | | |
| 1.2 | Other means of identification | | | | | |
| | Product number Other names | - | | | | |
| 1.3 | Recommended use of the chemical and restrictions on use | | | | | |
| | Identified uses Uses advised against | Industrial and scientific research no data available | h uses. | | | |
| 1.4 | Supplier's details | | | | | |
| | Company Address Telephone Fax | Target molecule Corp. 36 Washington Street, Wellesley (781) 999-4286 (781)-999-5354 | y Hills, MA 02481 US | δA | | |
| 1.5 | Emergency phone number | | | | | |
| | Emergency phone number Service hours | (781)-999-5354 Monday to Friday, 9am-5pm (S | tandard time zone: U | TC/GMT +8 hours). | | |
| 2. | Hazard identification | | | | | |
| 2.1 | Classification of the substance or mixture | | | | | |
| | no data available | | | | | |
| 2.2 | GHS label elements, including precautionary statements | | | | | |
| | Pictogram(s) Signal word Hazard statement(s) Precautionary statement(s) Prevention Response Storage Disposal | no data available no data available no data available no data available no data available no data available no data available | | | | |
| 2.3 | Other hazards which d | lo not result in classification | | | | |
| | no data available | | | | | |
| 3. | Composition/information on ingredients | | | | | |
| 3.1 | Substances | | | | | |
| | Chemical name Bis-PEG10-NHS ester | Common names and synonyms Bis-PEG10-NHS ester | CAS number 2221949-02-4 | EC number no data available | Concentration | |
| | | | | no anta urunuole | 100/0 | |

4. **First-aid measures**

4.1 Description of necessary first-aid measures

General advice

Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with water. Consult a doctor immediately.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison

Control Center immediately

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Wear personal protective equipment.

5. Fire-fighting measures

5.1 Extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use sparkproof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. Handling and storage

7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection. Wear tightly fitting safety goggles with side-shields conforming to EN 1365(EU) or NIOSH (US). Skin protection. Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. Respiratory protection. If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator. Thermal hazards. no data available

9. Physical and chemical properties

| v I I | |
|---|-------------------|
| Physical state | solid |
| Odour | no data available |
| Melting point/ freezing point | no data available |
| Boiling point or initial boiling point and boiling range | no data available |
| Flammability | no data available |
| Lower and upper explosion limit / | no data available |
| flammability limit | |
| Flash point | no data available |
| Auto-ignition temperature | no data available |
| Decomposition temperature | no data available |
| pH | no data available |
| Kinematic viscosity | no data available |
| Solubility | no data available |
| Partition coefficient n-octanol/water | no data available |
| Vapour pressure | no data available |
| Density and/or relative density | no data available |

| | Relative vapour density Particle characteristics | no data available no data available |
|------|---|--|
| 10. | Stability and reactivity | |
| 10.1 | Reactivity | |
| | no data available | |
| 10.2 | Chemical stability | |
| | Stable under proper conditions | |
| 10.3 | Possibility of hazardous | reactions |
| | no data available | |
| 10.4 | Conditions to avoid | |
| | no data available | |
| 10.5 | Incompatible materials | |
| | no data available | |
| 10.6 | Hazardous decompositio | n products |
| | no data available | |
| 11. | Toxicological informati | on |
| | Acute toxicity | |
| | no data available | |
| | Skin corrosion/irritation | |
| | no data available | |
| | Serious eye damage/irritation | |
| | no data available | |
| | Respiratory or skin sensitizatio | n |
| | no data available | |
| | Germ cell mutagenicity | |
| | no data available | |
| | Carcinogenicity no data available | |
| | | |
| | Reproductive toxicity no data available | |
| | STOT-single exposure | |
| | no data available | |
| | STOT-repeated exposure | |
| | no data available | |
| | Aspiration hazard | |
| | no data available | |
| 12. | Ecological information | |
| 12.1 | Toxicity | |
| | no data available | |
| 12.2 | Persistence and degradab | oility |
| | no data available | |
| 12.3 | Bioaccumulative potentia | al |
| | no data available | |

- 12.4 Mobility in soil no data available
- 12.5 Other adverse effects

no data available

Disposal considerations 13.

13.1 **Disposal methods**

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

| 14. | Transport information | | | | | |
|------|---|--------------------------------|----------|--|--|--|
| 14.1 | UN Number | | | | | |
| | no data available | | | | | |
| 14.2 | UN Proper Shipping Name | | | | | |
| | no data available | | | | | |
| 14.3 | Transport hazard class(es) | | | | | |
| | no data available | | | | | |
| 14.4 | Packing group, if applicable | | | | | |
| | no data available | | | | | |
| 14.5 | Environmental hazards | | | | | |
| | ADR/RID: No | IMDG: No | IATA: No | | | |
| 14.6 | Special precautions for user no data available | r | | | | |
| 14.7 | Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | | | | | |
| | no data available | | | | | |
| 15. | Regulatory information | | | | | |
| 15.1 | Safety, health and environmental regulations specific for the product in question | | | | | |
| | Not Listed. | | | | | |
| 16. | Other information | | | | | |
| | Information on revision | | | | | |
| | Creation Date Revision Date | July 15, 2019 July 15, 2019 | | | | |
| | Abbreviations and acronyms | | | | | |
| | CAS: Chemical Abstracts Service ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulation concerning the International Carriage of Dangerous Goods by Rail IMDG: International Maritime Dangerous Goods IATA: International Air Transportation Association TWA: Time Weighted Average STEL: Short term exposure limit LC50: Lethal Concentration 50% EC50: Effective Concentration 50% | | | | | |
| | References | | | | | |
| | IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm IARC - International Agency for | | | | | |

Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/ eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp ERG -Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-1456.jsp ECHA - European Chemicals Agency, website: https://echa.europa.eu/

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Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.