Safety Data Sheet

Revision Date 2023-12-28

| Product identifier | |
|---|--|
| Product Name | RNase Inhibitor |
| Other means of identification | |
| Product Code | ST1714 |
| Synonyms | No information available |
| Recommended use of the chemica | al and restrictions on use |
| Identified uses | For research use only. Not for use in diagnostic procedures |
| Restrictions on use | No information available |
| Details of the supplier of the safet | y data sheet |
| <u>Supplier</u> USA: Takara Bio USA, Inc. 2560 Orchard Parkway San Jose, CA 95131, USA Phone: 800.662.2566/888.251.6 Web: www.takarabio.com | 618 |
| Emergency telephone number | |
| Emergency telephone | In case of emergency, call PERS (Professional Emergency Resource Services) 1-800-633-8253 (US) or 801-629-0667 (international). |
| | 2. Hazard(s) identification |
| Braduat Classification Data | |

1 Identification

Product Classification Data

Acute toxicity - Inhalation (Dusts/Mists)

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

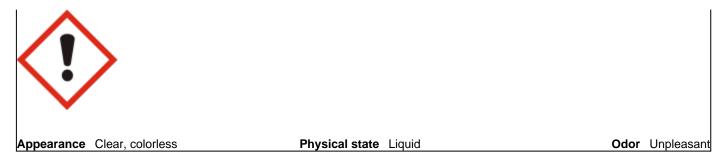
Warning

Hazard statements Harmful if inhaled



Revision Number 3

Category 4



Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a POISON CENTER or doctor if you feel unwell

Unknown acute toxicity

2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

No information available.

3. Composition/information on ingredients

Substance

Not applicable.

<u>Mixture</u>

| Chemical name | CAS No. | Weight-% | Trade secret |
|---------------|---------|----------|--------------|
| Glycerol | 56-81-5 | 60 - 70 | * |

4. First-aid measures

Description of first aid measures

| General advice | Show this safety data sheet to the doctor in attendance. |
|------------------------------------|--|
| Inhalation | Remove to fresh air. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately. |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| Skin contact | Wash skin with soap and water. |
| Ingestion | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention. |
| Self-protection of the first aider | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information. |

| Most important symptoms and effe | cts, both acute and delayed | |
|--|---|--|
| Symptoms | Coughing and/ or wheezing. Difficulty in breathing. | |
| Indication of any immediate medica | I attention and special treatment needed | |
| Note to physicians | Treat symptomatically. | |
| | 5. Fire-fighting measures | |
| Suitable Extinguishing Media Large Fire | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. CAUTION: Use of water spray when fighting fire may be inefficient. | |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. | |
| Specific hazards arising from the chemical | No information available. | |
| Explosion Data Sensitivity to mechanical impac | t None. | |
| Sensitivity to static discharge | None. | |
| Special protective equipment and precautions for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. | |
| 6. Accidental release measures | | |
| Personal precautions, protective ec | uipment and emergency procedures | |
| Personal precautions | Ensure adequate ventilation. Avoid breathing vapors or mists. Use personal protective equipment as required. | |
| Other information | Refer to protective measures listed in Sections 7 and 8. | |
| Methods and material for containm | ent and cleaning up | |
| Methods for containment | Prevent further leakage or spillage if safe to do so. | |

| Methods for cleaning up | Pick up and transfer to properly labeled containers. |
|-------------------------|--|

7. Handling and storage

| Precautions for safe handling | |
|-------------------------------------|--|
| Advice on safe handling | Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. |
| Conditions for safe storage, includ | ing any incompatibilities |
| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. |

8. Exposure controls/personal protection

Control parameters

Exposure Limits

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH |
|---------------|-----------|---|-------|
| Glycerol | - | TWA: 15 mg/m ³ mist, total | - |
| 56-81-5 | | particulate | |
| | | TWA: 5 mg/m ³ mist, respirable | |
| | | fraction | |
| | | (vacated) TWA: 10 mg/m ³ mist, | |
| | | total particulate | |
| | | (vacated) TWA: 5 mg/m ³ mist, | |
| | | respirable fraction | |

Appropriate engineering controls

| Engineering controls | Showers Eyewash stations Ventilation systems. |
|-------------------------------------|--|
| Individual protection measures, suc | ch as personal protective equipment |
| Eye/face protection | No special protective equipment required. |
| | |
| Skin and body protection | No special protective equipment required. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Do not eat, drink or smoke when using this product. |

9. Physical and chemical properties

| Information on basic physical and chemical properties | | | |
|---|--------------------------|------------------|--|
| Physical state | Liquid | | |
| Appearance | Clear, colorless | | |
| Color | No information available | | |
| Odor | Unpleasant | | |
| Odor Threshold | No information available | | |
| | | | |
| Property_ | Values | Remarks • Method | |
| рН | No data available | None known | |
| Melting point / freezing point | No data available | None known | |
| Boiling point/boiling range (°C) | No data available | None known | |
| Flash point | No data available | Open cup | |
| Evaporation Rate | No data available | None known | |
| Flammability (solid, gas) | No data available | None known | |
| Flammability Limit in Air | | None known | |
| Upper flammability limit: | No data available | | |
| Lower flammability limit: | No data available | | |
| Vapor pressure | No data available | None known | |
| | | | |

| Vapor density Relative density Water solubility Solubility in other solvents Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Dynamic Viscosity | No data available No data available | None known None known None known None known None known None known None known None known |
|---|--|--|
| Other information Explosive properties Oxidizing properties Softening point Molecular weight VOC content Liquid Density Bulk Density | No information available No information available No information available No information available No information available No information available | |

10. Stability and reactivity

| Reactivity | No information available. |
|--|---|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to Avoid | Excessive heat. |
| Incompatible materials | None known based on information supplied. |
| Hazardous decomposition products None known based on information supplied. | |

11. Toxicological information

Information on likely routes of exposure

Product Information

| Inhalation | Specific test data for the substance or mixture is not available. Harmful by inhalation. (based on components). | |
|--|---|--|
| Eye contact | Specific test data for the substance or mixture is not available. | |
| Skin contact | Specific test data for the substance or mixture is not available. | |
| Ingestion | Specific test data for the substance or mixture is not available. | |
| Symptoms related to the physical, chemical and toxicological characteristics | | |
| Symptoms | Coughing and/ or wheezing. | |
| Acute toxicity | | |
| Numerical measures of toxicity | | |
| The following values are calculated ATEmix (oral) ATEmix (dermal) | d based on chapter 3.1 of the GHS document 19,984.10 mg/kg 15,860.40 mg/kg | |

ATEmix (inhalation-dust/mist) 4.36 mg/l

Unknown acute toxicity

2 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|---------------------|--------------------|----------------------|
| Glycerol | = 12600 mg/kg (Rat) | > 10 g/kg (Rabbit) | > 2.75 mg/L (Rat)4 h |
| 56-81-5 | | | |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| Skin corrosion/irritation | No information available. |
|-----------------------------------|---------------------------|
| Serious eye damage/eye irritation | No information available. |
| Respiratory or skin sensitization | No information available. |
| Germ cell mutagenicity | No information available. |
| Carcinogenicity | No information available. |
| Reproductive toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | No information available. |
| Other adverse effects | No information available. |
| Interactive effects | No information available. |

12. Ecological information

Ecotoxicity

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---------------|----------------------|-------------------------|-------------------------------|-----------|
| Glycerol | - | LC50: 51 - 57mL/L (96h, | - | - |
| 56-81-5 | | Oncorhynchus mykiss) | | |

Persistence and degradability

No information available.

Bioaccumulation

There is no data for this product.

Component Information

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Glycerol | -1.75 |
| 56-81-5 | |

Other adverse effects

No information available.

13. Disposal considerations

Dispose of in accordance with local regulations. Dispose of waste in accordance with

Waste treatment methods

Waste from residues/unused products

Contaminated packaging

Do not reuse empty containers.

environmental legislation.

14. Transport information

DOT

Not regulated

15. Regulatory information

International Inventories

TSCA

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

| DSL/NDSL | |
|---------------|--|
| EINECS/ELINCS | |
| ENCS | |
| IECSC | |
| KECL | |
| PICCS | |
| AICS | |
| | |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

<u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------|------------|---------------|--------------|
| Glycerol | Х | Х | Х |
| 56-81-5 | | | |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

| 16. Other information | | | | | |
|---|---|----------------------------------|-------------------------------------|--|--|
| <u>NFPA</u> HMIS | Health hazards 2 Health hazards 2 | Flammability 1 Flammability 1 | Instability 0 Physical hazards 0 | Special hazards - Personal protection X | |
| Key or legend to | abbreviations and acronyms | s used in the safety data s | sheet | | |
| | Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION | | | | |
| TWA | Time weighted average | STEL | Short term expose | ure limit | |
| Ceiling | Maximum limit value | * | Skin designation | | |
| Ceiling Maximum limit value Skin designation Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification | | | | | |

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) U.S. National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

| Revision Date | 2023-12-28 |
|---------------|---------------------------|
| Revision Note | No information available. |

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet