

Safety Data Sheet

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision Date 2022-12-25

Revision Number 8

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

1.1. Product identifier

Product Code ST1031

TCR Primer 2 Forward HT Index 7 Product Name

Pure substance/mixture Mixture **1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses No information available

No information available Uses advised against

1.3. Details of the supplier of the safety data sheet

Supplier USA: Takara Bio USA, Inc. 2560 Orchard Parkway San Jose, CA 95131, USA Phone: 800.662.2566/888.251.6618 Web: www.takarabio.com

Europe: Takara Bio Europe S.A.S. 34. Rue de la Croix de Fer 78100 Saint-Germain-en-Lave, France Phone: +33.1.39.04.68.80 Web: www.takarabio.com

Europe: Takara Bio Europe AB Arvid Wallgrens Backe 20, SE-413 46 Göteborg, Sweden Phone: +46.31.758.09.00 Web: www.takarabio.com

India: DSS Takara Bio India Pvt. Ltd. A-5 Mohan Co-operative Industrial Estate, Mathura Road, New Delhi 110044, India Phone: +91.1800.212.4922 (Toll free) Web: www.takarabio.com

For further information, please contact:

1.4. 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). |
|---------------------|---|
| Italy | Marco Marano CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza e Accettazione DEA |

Roma, Piazza Sant'Onofrio,4 00165 0668593726

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008 This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP] Hazard statements This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate No information available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

| Inhalation | Remove to fresh air. | |
|--|--|--|
| 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. In the case of skin irritation or allergic reactions see a physician. | |
| Ingestion | Rinse mouth. | |
| 4.2. Most important symptoms and effects, both acute and delayed | | |
| 0 | No. information and include | |

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. | |
|---|---|--|
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. | |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. | |
| 5.2. Special hazards arising from the substance or mixture | | |
| Specific hazards arising from the chemical | No information available. | |
| 5.3. Advice for firefighters | | |
| Special protective equipment and precautions for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. | |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| Personal precautions | Ensure adequate ventilation. | |
|---|--|--|
| For emergency responders | Use personal protection recommended in Section 8. | |
| 6.2. Environmental precautions | | |
| Environmental precautions | See Section 12 for additional Ecological Information. | |
| 6.3. Methods and material for containment and cleaning up | | |
| Methods for containment | Prevent further leakage or spillage if safe to do so. | |
| Methods for cleaning up | Take up mechanically, placing in appropriate containers for disposal. | |
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. | |
| 6.4. Reference to other sections | | |
| Reference to other sections | See section 8 for more information. See section 13 for more information. | |

SECTION 7: Handling and storage

| 7.1. Precautions for safe handling | | |
|---|--|--|
| Advice on safe handling | Ensure adequate ventilation. | |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. | |
| 7.2. Conditions for safe storage, including any incompatibilities | | |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. | |

7.3. Specific end use(s)

| SECTION 8: Exposure controls/personal protection | | |
|---|--|--|
| 8.1. Control parameters | | |
| Exposure Limits | This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. | |
| Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies. | | |
| Derived No Effect Level (DNEL) Predicted No Effect Concentration (PNEC) | No information available. No information available. | |
| 8.2. Exposure controls | | |
| 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 | Handle in accordance with good industrial hygiene and safety practice. | |
| Environmental exposure controls | No information available. | |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical propertiesPhysical stateLiquidAppearanceClear, colorless

Clear

Color

| Odor | Odorless. | |
|----------------------------------|--------------------------|--------------------------|
| Odor Threshold | No information available | |
| Property_ | Values | Remarks • Method |
| Melting point / freezing point | No data available | None known |
| Boiling point/boiling range (°C) | 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 | |
| Flash point | No data available | Open cup |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | | None known |
| pH | No data available | None known |
| pH (as aqueous solution) | No data available | No information available |
| Kinematic viscosity | No data available | None known |
| Dynamic Viscosity | No data available | None known |
| | | |

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| Water solubility | No data available | None known |
|------------------------------|--------------------------|------------|
| Solubility in other solvents | No data available | None known |
| Partition coefficient | No data available | None known |
| Vapor pressure | No data available | None known |
| Relative density | No data available | None known |
| Bulk Density | No data available | |
| Liquid Density | No data available | |
| Vapor density | No data available | None known |
| Particle characteristics | | |
| Particle Size | No information available | |
| Particle Size Distribution | No information available | |
| 9.2. Other information | | |

9.2.1. Information with regard to physical hazard classes Not applicable

9.2.2. Other safety characteristics No information available

SECTION 10: Stability and reactivity

| 10.1. Reactivity | | |
|---|---|--|
| Reactivity | No information available. | |
| 10.2. Chemical stability | | |
| Stability | Stable under normal conditions. | |
| Explosion Data Sensitivity to mechanical impact Sensitivity to static discharge | | |
| 10.3. Possibility of hazardous reactions | | |
| Possibility of hazardous reactions | None under normal processing. | |
| 10.4. Conditions to avoid | | |
| Conditions to avoid | None known based on information supplied. | |
| 10.5. Incompatible materials | | |
| Incompatible materials | None known based on information supplied. | |
| 10.6. Hazardous decomposition products | | |
| Hazardous Decomposition Products None known based on information supplied. | | |
| | | |

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

| Inhalation | Specific test data for the substance or mixture is not available. |
|--------------|---|
| 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

No information available.

Numerical measures of toxicity

Acute toxicity

| 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. | |
| 11.2. Information on other hazards | | |
| 11.2.1. Endocrine disrupting prope | erties | |
| Endocrine disrupting properties | No information available. | |
| 11.2.2. Other information | | |
| Other adverse effects | No information available. | |
| | SECTION 12: Ecological information | |
| <u>12.1. Toxicity</u> | | |
| Ecotoxicity | The environmental impact of this product has not been fully investigated. | |

Unknown aquatic toxicity Contains 0.8496 % of components with unknown hazards to the aquatic environment.

| 12.2. Persistence and degradability | | |
|--|---------------------------|--|
| Persistence and degradability | No information available. | |
| 12.3. Bioaccumulative potential | | |
| Bioaccumulation | No information available. | |
| 12.4. Mobility in soil | | |
| Mobility in soil | No information available. | |
| 12.5. Results of PBT and vPvB assessment | | |
| PBT and vPvB assessment | No information available. | |
| 12.6. Endocrine disrupting properties | | |

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| Waste from residues/unused products | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
|--|---|
| Contaminated packaging | Do not reuse empty containers. |

SECTION 14: Transport information

| 14.1 UN number or ID number | Not regulated |
|-----------------------------------|--------------------------|
| 14.2 UN proper shipping name | No information available |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | |
| Special Provisions | None |
| | |
| IMDG | |
| 14.1 UN number or ID number | Not regulated |
| 14.2 UN proper shipping name | No information available |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | |
| Special Provisions | None |
| 14.7 Maritime transport in bulk | No information available |
| according to IMO instruments | |
| | |
| RID | |
| 14.1 UN number or ID number | Not regulated |

| 14.2 UN proper shipping name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazards | No information available Not regulated Not regulated Not applicable |
|---|--|
| 14.6 Special precautions for user Special Provisions | None |
| ADR | |
| 14.1 UN number or ID number | Not regulated |
| 14.2 UN proper shipping name | No information available |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user Special Provisions | None |

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

| International Inventories |
|---------------------------|
| TSCA |
| 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

15.2. Chemical safety assessment

Chemical Safety Assessment

No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Leaend

SVHC: Substances of Very High Concern for Authorization:

| Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION | | | |
|---|-----------------------|------|---------------------------|
| TŴĂ | Time weighted average | STEL | Short term exposure limit |

| I. | ۷ | ٧A | |
|----|---|--------|---|
| С | e | eiline | a |

| Ceiling | Maximum limit value * | Skin designation |
|----------------|--|-------------------------------|
| Classification | procedure | |
| Classification | according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| Acute oral to: | xicity | Calculation method |
| Acute dermal | I toxicity | Calculation method |
| Acute inhalat | ion toxicity - gas | Calculation method |
| Acute inhalat | ion toxicity - vapor | Calculation method |
| Acute inhalat | ion toxicity - dust/mist | Calculation method |
| | | O a la vila ti a un a the a d |

| Skin corrosion/irritation | Calculation method |
|-----------------------------------|--------------------|
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitization | Calculation method |
| Skin sensitization | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration hazard | Calculation method |
| Ozone | Calculation method |

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) 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

2022-12-25

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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