



This safety data sheet complies with the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

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Version 3

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

|              |                                       |
|--------------|---------------------------------------|
| Product Code | 635326                                |
| Product Name | Human Brain Cerebellum Protein Medley |

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

|                      |   |
|----------------------|---|
| Identified uses      | For research use only. Not for use in diagnostic procedures |
| Uses advised against | No information available                                    |

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

|          |  |
|----------|--|
| Supplier | USA:<br>Takara Bio USA, Inc.<br>1290 Terra Bella Avenue<br>Mountain View, CA 94043<br>Phone: 800.662.2566/888.251.6618<br>Web: www.takarabio.com<br><br>Europe:<br>Takara Bio Europe S.A.S.<br>34, Rue de la Croix de Fer<br>78100 Saint-Germain-en-Laye France<br>Phone: +33 1 39 04 68 80<br>Web: www.takarabio.com<br><br>Europe:<br>Takara Bio Europe AB<br>Arvid Wallgrens Backe 20,<br>SE-413 46 Goteborg, Sweden<br>Phone: +46 31 758 09 00<br>Web: www.takarabio.com<br><br>India:<br>DSS Takara Bio India Pvt. Ltd.<br>A-5 Mohan Co-operative Industrial Estate, Mathura Road,<br>New Delhi 110044, India<br>Phone: +91 11 30886717 |
|----------|--|

### **For further information, please contact:**

Technical Support: +33.(1).39.04.68.80

### 1.4. Emergency telephone number

In case of emergency, call PERS (Professional Emergency Resource Services) 1-800-633-8253 (US) or 801-629-0667 (international).

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

|                                 |                     |
|---------------------------------|---------------------|
| <b>Chronic Aquatic Toxicity</b> | Category 2 - (H411) |
|---------------------------------|---------------------|

### 2.2. Label elements

#### Product Identifier



#### Hazard Statements

H411 - Toxic to aquatic life with long lasting effects

#### Precautionary Statements - EU (§28, 1272/2008)

P273 - Avoid release to the environment.

### 2.3. Other hazards

No information available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances / 3.2 Mixtures

| Chemical Name                | EC-No     | CAS-No  | Weight % | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH Registration Number |
|------------------------------|-----------|---------|----------|---|---------------------------|
| Glycerol<br>56-81-5          | 200-289-5 | 56-81-5 | 10 - 30  | No data available   | No data available         |
| 2-Mercaptoethanol<br>60-24-2 | 200-464-6 | 60-24-2 | 5 - 10   | Aquatic Chronic 2 (H411)  | No data available         |

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

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General advice

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### Inhalation

Move to fresh air.

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|                     |   |
|---------------------|---|
| <b>Skin contact</b> | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.                           |
| <b>Eye contact</b>  | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.            |
| <b>Ingestion</b>    | Never give anything by mouth to an unconscious person, If symptoms persist, call a physician, Not an expected route of exposure |

#### **4.2. Most important symptoms and effects, both acute and delayed**

|                      |                           |
|----------------------|---------------------------|
| <b>Main Symptoms</b> | No information available. |
|----------------------|---------------------------|

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

|                           |                        |
|---------------------------|------------------------|
| <b>Notes to physician</b> | Treat symptomatically. |
|---------------------------|------------------------|

### **Section 5: FIRE FIGHTING MEASURES**

#### **5.1. Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** No information available

#### **5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors

#### **5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit. Use personal protective 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**

Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas

#### **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.

#### **6.4. 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** Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

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

**Technical measures/Storage conditions** Keep container tightly closed in a dry and well-ventilated place.

**Incompatible products** None known based on information supplied.

### 7.3. Specific end use(s)

**Risk Management Methods (RMM)** The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

**Exposure limits** Ingredients with workplace control parameters.

| Chemical Name       | European Union | United Kingdom  | France                   | Spain                    | Germany |
|---------------------|----------------|---|--------------------------|--------------------------|---------|
| Glycerol<br>56-81-5 | -              | STEL 30 mg/m <sup>3</sup><br>TWA 10 mg/m <sup>3</sup> | TWA 10 mg/m <sup>3</sup> | TWA 10 mg/m <sup>3</sup> | -       |

| Chemical Name       | Italy  | Portugal                 | Netherlands | Finland                  | Denmark |
|---------------------|--|--------------------------|-------------|--------------------------|---------|
| Glycerol<br>56-81-5 | 200 mg/m <sup>3</sup> TWA<br>AGW (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, inhalable fraction, exposure factor 2) | TWA 10 mg/m <sup>3</sup> | -           | TWA 20 mg/m <sup>3</sup> | -       |

| Component                       | Austria | Switzerland  | Poland                   | Norway | Ireland |
|---------------------------------|---------|--|--------------------------|--------|---------|
| Glycerol<br>56-81-5 ( 10 - 30 ) | -       | SS-C**<br>TWA 50 mg/m <sup>3</sup><br>STEL 100 mg/m <sup>3</sup> | TWA 10 mg/m <sup>3</sup> | -      | -       |

#### Legend:

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

### 8.2. Exposure controls

**Engineering Measures** Apply technical measures to comply with the occupational exposure limits. For rescue and maintenance work in storage tanks use self-contained breathing apparatus.

#### Personal Protective Equipment

**Eye/Face Protection** If splashes are likely to occur, wear: Safety glasses with side-shields  
**Hand Protection** Protective gloves.  
**Skin and body protection** Wear suitable protective equipment, Boots  
**Respiratory protection** None under normal use conditions.

**Environmental Exposure Controls** The product should not be allowed to enter drains, water courses or the soil.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

|                       |        |                       |                          |
|-----------------------|--------|-----------------------|--------------------------|
| <b>Physical State</b> | Liquid | <b>Odor</b>           | Characteristic           |
| <b>Appearance</b>     | Blue   | <b>Odor Threshold</b> | No information available |
| <b>Color</b>          | Blue   |                       |                          |

| <u>Property</u>                         | <u>Values</u>              | <u>Remarks • Method</u> |
|---|----------------------------|-------------------------|
| <b>pH VALUE</b>                         | No information available   |                         |
| <b>Melting point / freezing point</b>   | No information available / |                         |
| <b>Boiling point/boiling range (°C)</b> | No information available   |                         |
| <b>Flash point</b>                      | No information available   |                         |
| <b>Evaporation Rate</b>                 | No information available   |                         |
| <b>Flammability (solid, gas)</b>        | No information available   |                         |
| <b>Flammability Limit in Air</b>        |                            |                         |
| <b>Upper flammability limit:</b>        | No information available   |                         |
| <b>Lower flammability limit:</b>        | No information available   |                         |
| <b>Vapor pressure</b>                   | No information available   |                         |
| <b>Vapor density</b>                    | No information available   |                         |
| <b>Relative density</b>                 | No information available   |                         |
| <b>Water Solubility</b>                 | Not applicable             |                         |
| <b>Solubility in other solvents</b>     | No information available   |                         |
| <b>Partition coefficient</b>            | No information available   |                         |
| <b>Autoignition temperature</b>         | No information available   |                         |
| <b>Decomposition temperature</b>        | No information available   |                         |
| <b>Viscosity, kinematic</b>             | No information available   |                         |
| <b>Viscosity, dynamic</b>               | No information available   |                         |
| <b>Explosive properties</b>             | No information available   |                         |
| <b>Oxidizing Properties</b>             | No information available   |                         |

### 9.2. Other information

|                         |                          |
|-------------------------|--------------------------|
| <b>Softening point</b>  | No information available |
| <b>Molecular Weight</b> | No information available |
| <b>VOC Content (%)</b>  | No information available |
| <b>Density VALUE</b>    | No information available |
| <b>Bulk Density</b>     | No information available |

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions.

#### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### 10.3. Possibility of hazardous reactions

None under normal processing.

### 10.4. Conditions to avoid

None known based on information supplied.

#### **10.5. Incompatible materials**

No information available.

#### **10.6. Hazardous decomposition products**

None under normal use conditions.

### **Section 11: TOXICOLOGICAL INFORMATION**

#### **11.1. Information on toxicological effects**

##### **Acute toxicity**

##### **Product Information**

Product does not present an acute toxicity hazard based on known or supplied information

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | There is no data available for this product. |
| <b>Eye contact</b>  | There is no data available for this product. |
| <b>Skin contact</b> | There is no data available for this product. |
| <b>Ingestion</b>    | There is no data available for this product. |

The following values are calculated based on chapter 3.1 of the GHS document

|                        |                |
|------------------------|----------------|
| <b>ATEmix (oral)</b>   | 4,090.00 mg/kg |
| <b>ATEmix (dermal)</b> | 7,643.00 mg/kg |

##### **Unknown acute toxicity**

- 27.9355 % of the mixture consists of ingredient(s) of unknown toxicity.
- 12.9355 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 15.9355 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 27.9355 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
- 27.9355 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
- 27.9355 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

|  |                           |
|--|---------------------------|
| <b>Skin corrosion/irritation</b>         | No information available. |
| <b>Serious Eye Damage/Eye Irritation</b> | No information available. |
| <b>Sensitization</b>                     | No information available. |
| <b>mutagenic effects</b>                 | No information available. |
| <b>Carcinogenic effects</b>              | No information available. |
| <b>Reproductive toxicity</b>             | No information available. |
| <b>STOT - Single Exposure</b>            | No information available. |
| <b>STOT - Repeated Exposure</b>          | No information available. |
| <b>Aspiration Hazard</b>                 | No information available. |

### **Section 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity****Ecotoxicity**

Toxic to aquatic life Toxic to aquatic life with long lasting effects

11 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Chemical Name     | Algae/aquatic plants                     | Fish   | Toxicity to daphnia and other aquatic invertebrates |
|-------------------|--|--|---|
| Glycerol          | -  | 51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static | 500: 24 h Daphnia magna mg/L EC50                   |
| 2-Mercaptoethanol | 12: 72 h Desmodium subspicatum mg/L EC50 | 46 - 100: 96 h Leuciscus idus mg/L LC50 static     | 1.52: 48 h Daphnia magna mg/L EC50                  |

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

| Chemical Name     | Partition coefficient |
|-------------------|-----------------------|
| Glycerol          | -1.76                 |
| 2-Mercaptoethanol | -0.056                |

**12.4. Mobility in soil****Mobility in soil**

No information available.

**Mobility**

No information available.

**12.5. Results of PBT and vPvB assessment**

No information available.

**12.6. 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 the European Directives on waste and hazardous waste.

**Contaminated packaging**

Dispose of in accordance with local regulations.

## Section 14: TRANSPORT INFORMATION

**IMDG/IMO**

|                           |                                 |
|---------------------------|---------------------------------|
| 14.1 UN/ID no             | UN3287                          |
| 14.2 Proper Shipping Name | Toxic liquid, inorganic, n.o.s. |
| 14.3 Hazard Class         | 6.1                             |
| 14.4 Packing group        | II                              |

|  |  |
|--|--|
| <b>Description</b>   | UN3287, Toxic liquid, inorganic, n.o.s. (Glycerol, Protein Medley Tissue), 6.1, II, Marine Pollutant |
| <b>14.5 Environmental Hazard</b>   | Yes  |
| <b>Marine pollutant</b>  | Not regulated  |
| <b>14.6 Special Provisions</b>   | None   |
| <b>EmS-No</b>  | F-A, S-A   |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | No information available   |

**RID**

|                                  |   |
|----------------------------------|---|
| <b>14.1 UN/ID no</b>             | UN3287  |
| <b>14.2 Proper Shipping Name</b> | Toxic liquid, inorganic, n.o.s.   |
| <b>14.3 Hazard Class</b>         | 6.1   |
| <b>14.4 Packing group</b>        | II  |
| <b>Description</b>               | UN3287, Toxic liquid, inorganic, n.o.s. (Glycerol, Protein Medley Tissue), 6.1, II, ENVIRONMENTALLY HAZARDOUS |
| <b>14.5 Environmental Hazard</b> | Yes   |
| <b>14.6 Special Provisions</b>   | None  |
| <b>Classification code</b>       | T4  |

**ADR/RID**

|                                  |   |
|----------------------------------|---|
| <b>14.1 UN/ID no</b>             | UN3287  |
| <b>14.2 Proper Shipping Name</b> | Toxic liquid, inorganic, n.o.s.   |
| <b>14.3 Hazard Class</b>         | 6.1   |
| <b>ADR/RID-Labels</b>            | 6.1   |
| <b>14.4 Packing group</b>        | II  |
| <b>Description</b>               | UN3287, Toxic liquid, inorganic, n.o.s. (Glycerol, Protein Medley Tissue), 6.1, II, ENVIRONMENTALLY HAZARDOUS |
| <b>14.5 Environmental Hazard</b> | Yes   |
| <b>14.6 Special Provisions</b>   | 274   |
| <b>Classification code</b>       | T4  |
| <b>Tunnel restriction code</b>   | D/E   |

**ICAO/IATA**

|                                  |  |
|----------------------------------|--|
| <b>14.1 UN/ID no</b>             | UN3287   |
| <b>14.2 Proper Shipping Name</b> | Toxic liquid, inorganic, n.o.s.  |
| <b>14.3 Hazard Class</b>         | 6.1  |
| <b>14.4 Packing group</b>        | II   |
| <b>Description</b>               | UN3287, Toxic liquid, inorganic, n.o.s. (Glycerol, Protein Medley Tissue), 6.1, II |
| <b>14.5 Environmental Hazard</b> | Yes  |
| <b>14.6 Special Provisions</b>   | None   |
| <b>ERG Code</b>                  | 6L   |

**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

|                                  |                       |
|----------------------------------|-----------------------|
| <b>International Inventories</b> | For research use only |
| 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**

**Full text of H-Statements referred to under section 3**

H411 - Toxic to aquatic life with long lasting effects

**Legend**

SVHC: Substances of Very High Concern for Authorization:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                       |      |                           |
|---------|-----------------------|------|---------------------------|
| TWA     | Time weighted average | STEL | Short term exposure limit |
| Ceiling | Maximum limit value   | *    | Skin designation          |
| **      | Hazard Designation    |      |                           |

**Issuing Date** 2020-04-08

**Revision Date** 2020-04-08

**Reason for revision:** Not Applicable.

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

**Disclaimer**

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**End of Safety Data Sheet**