

MATERIAL SAFETY DATA SHEET

The information is provided as a service to our customers and is intended only for their use.

This information is based on technical information believed to be reliable and will be revised as new knowledge or experience is gained.

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Version 03

Revision date : 2023-11-06

1. IDENTIFICATION**A. Product name**

- Glycyl-L-tyrosine dihydrate (Catalog No. : 215GLT)

B. Recommended use and restriction on use

- General use : Cell culture use
- Restriction on use : Not applicable

C. Supplier / Distributor information

- Company name : Ajinomoto CELLiST Korea Co., Inc.
- Address : 105, Jisikgiban-ro, Songdo-dong, Yeonsu-gu, Incheon 21991, KOREA
- Dept. : Production Division
- Telephone number : +82-32-210-2600
- Emergency telephone number : +82-32-210-2600
- Fax number : +82-32-210-2604
- E-mail Address : sales@ajinomotocellist.com

2. HAZARD IDENTIFICATION**A. GHS Classification**

- Not applicable

B. GHS label elements

- Hazard symbols
 - Not applicable
- Signal words
 - Not applicable
- Hazard statements
 - Not applicable
- Precautionary statements
 - Not applicable

C. Other hazards which do not result in classification

- Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)
Glycyl-L-tyrosine dihydrate	-	39630-46-1	95 ~ 100

4. FIRST AID MEASURES**A. Eye contact**

- Flush eyes with water as a precaution.

B. Skin contact

- Wash off with soap and plenty of water.

C. Inhalation contact

- If breathed in, move person into fresh air. If not breathing, give artificial respiration.

D. Ingestion contact

- Never give anything by mouth to an unconscious person. Rinse mouth with water.

E. Most important symptoms and effects, both acute and delayed

- To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

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

- Not available

5. FIREFIGHTING MEASURES**A. Suitable (Unsuitable) extinguishing media**

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

B. Specific hazards arising from the chemical

- Carbon oxides, Nitrogen oxides (NOx)

C. Special protective actions for firefighters

- Avoid inhalation of materials or combustion by-products.
- Cool containers with water until well after fire is out.
- Do not approach the tank surrounded by fire until it is extinguished.
- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Keep unauthorized personnel out.

6. ACCIDENTAL RELEASE MEASURES**A. Personal precautions, protective equipment and emergency procedures**

- Do not touch spilled material. Stop leak if you can do it without risk.
- Handle the damaged containers or spilled material after wearing appropriate protective equipment
- Move container to safe area from the leak area.
- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.

B. Environmental precautions

- If large amounts have been spilled, inform the relevant authorities.
- Prevent runoff and contact with waterways, drains or sewers.

C. Methods and materials for containment and cleaning up

- Appropriate container for disposal of spilled material collected.
- Disposal of waste shall be in compliance with the Wastes Control Act
- Dust spills : Cover dust spills with plastic sheet or waterproof cloth to minimize spreading and avoid contact with water.
- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notify the central and local government if the emission reach the standard threshold.

D. Reference to other sections

- For disposal see section 13.

7. HANDLING AND STORAGE**A. Precautions for safe handling**

- Avoid contact with incompatible materials.
- Avoid direct physical contact.
- Comply with all applicable laws and regulations for handling
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.

B. Conditions for safe storage, including any incompatibilities

- Avoid direct sunlight.
- Check regularly for leaks.
- Do not apply any physical shock to container.
- Do not apply direct heat.
- Do not use damaged containers.
- Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
- Recommended storage temperature: Room temperature.

C. Specific end uses

- Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**A. Exposure limits : Not applicable**

- o ACGIH TLV
- o OSHA PEL

B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.
- Individual protection measures, such as personal protective equipment
- General industrial hygiene practice.

C. Individual protection measures, such as personal protective equipment**o Respiratory protection**

- Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Air-purifying respirator with high-efficiency particulate filtering
- Any respiratory protection with a electromotion fan(for dust, mist, fume-purifying)
- Consider warning properties before use.
- Dust, mist, fume-purifying respiratory protection
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
- Respiratory protection is ranked in order from minimum to maximum.
- Self-contained breathing apparatus with a corpuscle filter of high efficiency
- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.

o Eye protection

- Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Provide an emergency eye wash station and quick drench shower in the immediate work area.
- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.

o Hand protection

- Wear appropriate chemical resistant glove.

o Skin protection

- The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
- Wear appropriate chemical resistant protective clothing.

o Others

- Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	Solid(Powder)
- Color	White
B. Odor	Odourless
C. Odor threshold	Not available
D. pH	Not available
E. Melting point/Freezing point	277 °C (dec)

F. Initial Boiling Point/Boiling Ranges	Not available
G. Flash point	Not available
H. Evaporation rate	Not applicable
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	Not available
K. Vapour pressure	Not applicable
L. Solubility	1.0 g/20g H ₂ O (20° C)□
M. Vapour density	Not applicable
N. Specific gravity(Relative density)	Not available
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	Not available
S. Molecular weight	274.3

10. STABILITY AND REACTIVITY

A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with incompatible materials and condition.

D. Incompatible materials

- Strong acids, Strong bases

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure : Not available

- Respiratory tracts
- Oral
- Eye·Skin

B. Delayed and immediate effects and also chronic effects from short and long term exposure

- Acute toxicity : Not available
- Skin corrosion/irritation : Not available
- Serious eye damage/irritation : Not available
- Respiratory sensitization : Not available
- Skin sensitization : Not available
- Carcinogenicity
 - * IARC
 - No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
 - * OSHA : Not available
 - * ACGIH : Not available
 - * NTP : Not available
 - * EU CLP : Not available
- Germ cell mutagenicity : Not available
- Reproductive toxicity : Not available
- STOT(Specific target organ toxicit)-single exposure : Not available
- STOT(Specific target organ toxicit)-repeated exposure : Not available
- Aspiration hazard : Not available
- Potential health effects

- * Inhalation : May be harmful if inhaled. May cause respiratory tract irritation.
- * Ingestion : May be harmful if swallowed.
- * Skin : May be harmful if absorbed through skin. May cause skin irritation.
- **Signs and Symptoms of Exposure**
 - To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- **Additional Information**
 - RTECS: Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

- Not available

B. Persistence and degradability : Not available

- It can degrade to related amino acid

C. Bioaccumulative potential

- Not available

D. Mobility in soil

- Not available

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- It shall be treated by incineration
- Oil water separation technology shall be applied as pre-waste treatment if it is applicable
- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them

B. Special precautions for disposal

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act
- Dispose of waste in accordance with all applicable laws and regulations.

C. Contaminated packaging

- Dispose of as unused product.

14. TRANSPORT INFORMATION

A. UN No. (IMDG CODE/IATA DGR)

- Not applicable

B. Proper shipping name

- Not applicable

C. Hazard Class

- Not applicable

D. IMDG CODE/IATA DGR Packing group

- Not applicable

E. Marine pollutant

- Not applicable

F. Special precautions for user related to transport or transportation measures

- Air transport(IATA): Not subject to IATA regulations.
- Local transport follows in accordance with Dangerous goods Safety Management Law.

- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE : Not available
- EmS SPILLAGE SCHEDULE : Not available

15. REGULATORY INFORMATION

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

A. National and/or international regulatory information : Not applicable

- **POPs Management Law**
- **Information of EU Classification**
- **U.S. Federal regulations**
 - * OSHA PROCESS SAFETY (29CFR1910.119)
 - * CERCLA Section 103 (40CFR302.4)
 - * EPCRA Section 302 (40CFR355.30)
 - * EPCRA Section 304 (40CFR355.40)
 - * EPCRA Section 313 (40CFR372.65)
- **Rotterdam Convention listed ingredients**
- **Stockholm Convention listed ingredients**
- **Montreal Protocol listed ingredients**

16. OTHER INFORMATION**A. Reference**

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. 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.No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

B. Issue date

- 2021-06-09

C. Revision number and Last date revised

- V3, 2023-11-06

D. Other

- This information was prepared based on the currently available DB to protect worker health, environment, and safety.