Headquarters: No. 666 Chanling Avenue, Douhudi Town, Gong An, Jingzhou, Hubei, P.R.China Tel: +86-27 8578 6222 Fax: +86-27 8578 6555

E-mail: sales@ Shine-Star.com.cn www.Shine-Star.com.cn

SAFETY DATA SHEET

L-Citrulline DL-Malate 2:1

Revised Edition No.2

1. PRODUCT IDENTIFICATION AND COMPANY INFORMATION

L-Citrulline DL-Malate 2:1 Product Name:

Company: Shine Star(Hubei) Biological Engineering Co., Ltd.

Contact E-mail: sales@shine-star.com.cn

Company Website: www.shine-star.com.cn

Telephone: +86 27-85786222

Fax: +86 27-85786555

Emergency Telelphone: +86 27-85786222

2. HAZARDS IDENTIFICATION

Main Hazards:

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. This substance is not classified as dangerous according to Directive 67/548/EEC.

Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description: Synonyms: (2S)-2-amino-5-(carbamoylamino)pentanoic acid: 2-hydroxybutanedioic acid

> Formula: C10H19N3O8 Molecular weight: 309.27 g/mol CAS-No.: 54940-97-5

Percent : L-Citrulline(62.5%-74.2%) Dl-Malate(25.8%-37.5%) No components need to be disclosed according to the applicable regulations.

4. FIRST AID MEASURES

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Skin Contact: Wash off with soap and plenty of water.

Eye Contact: Flush eyes with water as a precaution.

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

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

5. FIRE FIGHTING MEASURES

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

Fire Hazard: Carbon oxides, Nitrogen oxides (NOx)

Protective Equipment: Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal Precaution: Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8.

Environmental Precaution: No special environmental precautions required.

Clean-Up Methods: Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling: Provide appropriate exhaust ventilation at places where dust is formed.

Storage: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures: General industrial hygiene practice.

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).

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Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique

(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory

practices.Wash and dry hands.

Eye Protection: Use equipment for eye protection tested and approved under appropriate government standards

such as NIOSH (US) or EN 166(EU).

Protective Equipment: Glove and safety goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

Description: white crystal or crystalline powder

Color: white

Odor: No data available

Boiling Point: No data available

Flash Point: No data available

Relative Density: No data available

Water Solubility: No data available

Melting Point: No data available

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions.

Conditions to Avoid: No data available

Materials to Avoid: Strong oxidizing agents

Hazardous Decomposition

Products: Other decomposition products - No data available

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In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

Toxicological Information:

Acute toxicity No data available

Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory or skin sensitisation No data available

Germ cell mutagenicity No data 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.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicity

Persistence and degradability

Bioaccumulative potential

Mobilty in soil

No data available

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects No data available

13. DISPOSAL CONSIDERATIONS

General Information: Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

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Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

Further Information:

UN number

ADR/RID: -IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: -IATA: -IMDG: -

Packaging group

ADR/RID: -IMDG: -IATA: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

15. REGULATORY INFORMATION

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

Safety, health and environmental regulations/legislation specific for the substance or mixture no data available

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

Further Information:

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

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I.-Citrulline DL-Malate 2:1

the product Shine star(Hubei) Biological Engineering Co., Ltd shall not be uting from handling or from contact with the above product.

20**1**0, reviewed in 2022. ation Date: July

Print Date: 2022.03.09