Shine Star (Hubei) Biological Engineering Co., Ltd. Headquarters: No. 666 Chanling Avenue, Douhudi Town, Gong An, Jingzhou, Hubei, P.R.China

Fax: +86-27 8578 6555 Tel: +86-27 8578 6222 E-mail: sales@Shine-Star.com.cn www.Shine-Star.com.cn

SAFETY DATA SHEET

L-Arginine

Revised Edition No. 3

1. PRODUCT IDENTIFICATION AND COMPANY INFORMATION

Product Name: L-Arginine

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 Telephone: +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.

Label elements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Other hazards

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description: Synonyms (S)-2-Amino-5-guanidinopentanoic acid

> Formula: $C_6H_{14}N_4O_2\\$ Molecular weight: 174.2 g/mol 74-79-3 CAS-No. EC-No.: 200-811-1

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4. FIRST AID MEASURES

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.

Environmental Precaution: Do not let product enter drains.

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 normal temperature. 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 compone

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nts tested andapproved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand Protection:

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.

The selected protective gloves have to satisfy the specifications of EU Directive

89/686/EEC and the standard EN 374 derived from it.

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: 148g/l at 20 °C

Melting Point: 222 °C - dec.

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Conditions to Avoid: No data available

Materials to Avoid: Strong oxidizing agents

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Hazardous Decomposition Products:

Other decomposition products - No data available 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.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

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Additional Information

RTECS: CF1934200

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

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

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

Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

General Information: Product

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

Contaminated packaging Dispose of as unused product.

14. TRANSPORT INFORMATION

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UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods I MDG: Not dangerous goods IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

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

Special precautions for user

No data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010

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 guarantee of the properties of the product. Shine star(Hubei) Biological Engineering Co., Ltd shall not be heldliable for any damage resulting from handling or from contact with the above product.

SDS Creation Date: July 20, 2002, reviewed in 2023.