Safety Data Sheet

According to Regulation (EU) 2020/878

Version No.	**01/EN**
Revision	**05**
Printing date	**29 Jan, 2024**

1. IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name:	L-isoleucine
EC No.:	200-798-2
CAS No.:	73-32-5

1.2 Relevant identified uses of substance or mixture and uses advised against

Use of the substance/ mixture:	Feed additives
Uses advised against:	No information available

1.3 Details of the supplier of the safety data sheet

Company name:	CJ (SHENYANG) BIOTECH CO., LTD.
Address:	#38 Yunong Road, Shenbei New District,Shenyeng, Liaoning, CHINA.
Information contact no (Tel.)	(024) 31410001

1.4 Emergency telephone number

(024) 31410001

This number is serviced during office hours only.

Furter Information

The substance does not require registration according to Regulation (EC) No 1907/2006 [REACH].

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

2.2 Label elements

Labeling according to Regulation (EC) No.1272/2008 [EU-GHS/CLP]

- Hazard pictograms	Not applicable
- Signal word:	Not applicable
- Hazard statements	Not applicable
- Precautionary statements	Not applicable

2.3. Other hazards

No information available

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Chemical characterization : L-isoleucine 90.0% and its by-products from fermentation

Further Information : No information available

4. FIRST AID MEASURES

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4.1 Description of first aid measures

Inhalation	Immediately relocate to a fresh air environment. Rinse mouth with water. If not breathing, give artificial respiration. If breathing becomes difficult, give oxygen and seek medical attention.
Skin contact	Wash with soap and copious amounts of water. If irritation persists, seek medical attention.
Eye contact	Immediately flush eyes with copious amounts of water. Assure adequate flushing by separating eyelids with fingers. If contact lenses are being worn, remove lenses and continue rinsing. Seek medical attention.
Ingestion	Rinse mouth with water and seek medical attention.

4.2 Most important symptoms / effects, acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No data available.
Special treatment	No data available.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Water spray, carbon dioxide, dry chemical powder/foam.
Unsuitable extinguishing media	Not known

5.2 Special hazards arising from the substance or mixture

hydrogen chloride (HCl), sulphur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO2)

5.3 Advice for firefighters

Ensure adequate ventilation; Avoid dust formation in confined areas. Fine dust dispersed in air may ignite

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. For handling spilled product, use personal protection equipment: see section 8

6.2 Environmental precautions

Prevent spills from entering sewers and watercourses. Avoid dust generation. Ventilate area. After material removal, rinse spill site with water.

6.3 Methods and material for containment and cleaning up

Shovel dry material into suitable container and dispose material in accordance with local regulations. After spillage removal, rinse the site with water.

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6.4 Reference to other sections

Protective measures: see section 7 and 8.

Disposal: see section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

Follow good industrial practice in housekeeping and personal hygiene.

Wear personal protective equipment as outlined in section 8.

7.2 Conditions for safe storage, including any incompatibilities

Store in original container.

Keep containers dry and sealed/tightly closed to avoid moisture absorption and contamination

Store away from any source of combustion

7.3 Specific end uses

No data available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits	No data available
Biological limit values	No data available
Exposure limits at intended use	No data available

8.2 Exposure controls

Appropriate engineering controls	Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.
Protective and hygiene measures	Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work. Take off contaminated clothing and wash it before reuse. Handle in accordance with good industrial hygiene and safety practices.
Eye/face protection	Safety glasses, chemical safety goggles.
Hand protection	Suitable gloves: i- NBR (Nitrile rubber) DIN EN 374 ii- Butyl caoutchouc (butyl rubber) DIN EN 374 Wear appropriate laboratory apparel, protect exposed skin.
Skin protection	Wear suitable protective clothing

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Respiratory protection	Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P1 (filters at least 80 % of airborne particles, colour code: White).
Thermal hazards	No data available
Environmental exposure controls	Keep away from drains, surface and ground water.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Form : crystalline powder Color : White to yellowish
Odor	Characteristic
Odor threshold	No data available
pH (5% sol.)	pH 4.5 – 7.0
Melting point / Freezing point	288°C (decomposes)
Boiling point and range	No data available
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	This material is combustible, but will not ignite readily
Upper/lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Bulk density	1,207 g/cm³ at 20°C
Solubility	Slightly soluble
Partition coefficient: n-octanol/water	log KOW: -1,72 (ECHA)
Auto-ignition temperature	>475 °C (ECHA)
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other information

: MIE (Minimum ignition energy) 3~10 mJ (20 C) (ASTM E2019)

10. STABILITY AND REACTIVITY

10.1 Reactivity

The product in the delivered form is not dust explosion capable. The enrichment of fine dust however leads to the danger of dust explosion.

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10.2 Chemical stability	The product is stable under recommended storage conditions
10.3 Possibility of hazardous reactions	Strong oxidizing agents
10.4 Conditions to avoid	High temperature and humidity, incompatible materials, dust generation
10.5 Incompatible materials	Strong oxidizing agents
10.6 Hazardous decomposition products	Nitrogen oxides, carbon monoxide, carbon dioxide

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Not classified
Skin corrosion/irritation:	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity	Not classified
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	Likely mobile in the environment due to its water solubility.
12.5 Results of PBT and vPvB assessment	No data available
12.6 Endocrine disrupting properties	Not classified
12.7 Other adverse effects:	No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods	*Directive 2008/98/EC (Waste Framework Directive)*
Properties of waste which render it hazardous	No hazardous waste.
Disposal operations	No specific disposal operations. Dispose as stated in 13.2
Recovery operations	No data available

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Waste codes / waste designations according to EWC / AVV	06 01 99: Wastes not otherwise specified
Other disposal recommendation	No specific disposal operations. Dispose as stated in 13.2
13.2 Waste from residues / unused products	No data available
13.3 Contaminated packaging	No data available

14. TRANSPORT INFORMATION

14.1 Land transport (US DOT ground)

UN number or ID number	No data available
Proper Shipping Description	No data available
Transport hazard class(es)	No data available
Packing group	No data available
DOT Marine Pollutant	No data available
Reportable Quantity (RQ)	No data available

14.2 Air transport (ICAO-TI / IATA-DGR)

UN number or ID number	No data available
UN proper shipping name	No data available
Transport hazard class(es)	No data available
Packing group	No data available
Special Provisions	No data available
Special precautions for user	No data available

14.3 Sea transport (IMDG)

UN number or ID number	No data available
Proper Shipping Description	No data available
Transport hazard class(es)	No data available
Packing group	No data available
Marine Pollutant	No data available
Special Provisions	No data available
Special precautions for user	No data available

14.4 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Consult IMO regulations before transporting ocean bulk

14.5 Additional information

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This information is not intended to convey any special laws or handling requirements/information relating to this product. Shipping classifications may also vary by container volume and may be affected by the region or country where applicable laws and regulations apply. Additional shipping system information may be obtained through authorized sales or customer service representatives. It is the responsibility of the Transport Department to comply with all applicable laws, rules and regulations relating to material transport systems.

15. REGULATORY INFORMATION

15.1 Regulatory information

This safety datasheet complies with the requirements of Regulation (EU) No. 2020/878.

15.2 Chemical Safety Assessment:

We inform you about risks and safety, as written in this document.

16. OTHER INFORMATION

The contents and format of this MSDS/SDS are in accordance with Regulation (EU) 2020/878.

16.1 Indication of changes

Issue date	10.20.2018
Revision number and Last date revised	Revision 05 / 01.29.2024

16.2 Abbreviations and acronyms

CLP: Regulation No. 1272/2008 on Classification, Labelling and Packaging of substances and mixtures
EC: European Community
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
SCL: specific concentration limit
ATE: Acute Toxicity Estimate
ECHA: The European Chemicals Agency
IUCLID: International Uniform Chemical Information Database
PBT/vPvB: Bio-accumulative and Toxic / very Persistent and very Bio-accumulative
DOT: U.S. DEPARTMENT OF TRANSPORTATION
ICAO: The International Civil Aviation Organization
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code

16.3 Key literature references and sources for data

ECHA, IPCS INCHEM, IUCLID, NITE, OECD Screening Information Data Set, SIDS

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

See SECTION 2.1 (classification).

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