

MATERIAL SAFETY DATA SHEET

1.Product and company identification

1.1 Product identifiers

Product name : L-glutamine

CAS-No. : 56-85-9

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

Identified uses : Laboratory chemicals, Synthesis and Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Changzhou Extraordinary Pharmatech co.,LTD

Add:No4 HouYang chemical industrial park.Changzhou Jiangsu province P.R.China

Email: info@feifanchem.com

Telephone : +86 519 82111935

Fax : +86 519 82611250

2.Hazard identification

2.1Classification of the substance or mixture

Not classified.

2.2GHS label elements, including precautionary statements

Pictogram(s)	No symbol.
Signal word	No signal word.
Hazard statement(s)	none
Precautionary statement(s)	
Prevention	none
Response	none
Storage	none
Disposal	none

2.3Other hazards which do not result in classification

None

3.Composition/information on ingredients

3.1Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
L-glutamine	L-glutamine	56-85-9	none	100%

4.First-aid measures

4.1Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

/SRP:/ Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR if necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on the left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. /Poisons A and B/

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Wear self contained breathing apparatus for fire fighting if necessary.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20 °C/L-Glutamine solution/

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9.Physical and chemical properties

Physical state	white powder
Colour	White crystalline powder
Odour	no data available
Melting point/ freezing point	4°C(lit.)
Boiling point or initial boiling point and boiling range	141°C/14mmHg(lit.)
Flammability	no data available
Lower and upper explosion limit / flammability limit	no data available
Flash point	125°C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	pH = 5-6 at 14.6 g/L at 25°C
Kinematic viscosity	no data available
Solubility	no data available
Partition coefficient n-octanol/water (log value)	no data available
Vapour pressure	1.9X10-8 mm Hg at 25°C (est)
Density and/or relative density	1.321g/cm ³
Relative vapour density	no data available
Particle characteristics	no data available

10.Stability and reactivity

10.1Reactivity

no data available

10.2Chemical stability

Stable under recommended storage conditions.

10.3Possibility of hazardous reactions

Not flammable or combustible.

10.4Conditions to avoid

no data available

10.5Incompatible materials

Strong oxidizing agents

10.6Hazardous decomposition products

When heated to decomposition it emits toxic fumes of /nitrogen oxides/

11.Toxicological information

Acute toxicity

Oral: LD50 Mouse oral 700 mg/kg

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12.Ecological information

12.1 Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

12.2 Persistence and degradability

AEROBIC: Glutamine, present at 100 mg/L, reached 77% of its theoretical BOD in 4 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test which classified the compound as readily biodegradable(1).

12.3 Bioaccumulative potential

An estimated BCF of 3 was calculated in fish for glutamine(SRC), using a log Kow of -3.15(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

12.4 Mobility in soil

Using a structure estimation method based on molecular connectivity indices(1), the Koc of glutamine can be estimated to be 10(SRC). According to a classification scheme(2), this estimated Koc value suggests that glutamine is expected to have very high mobility in soil. Glutamine has pKa values of 2.17 (the acid) and 9.13 (the amine)(3) indicating that this compound will exist as a zwitterion having both a cation and anion form in the environment and cations generally adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(4).

12.5 Other adverse effects

no data available

13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

14.1 UN Number

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

14.2 UN Proper Shipping Name

ADR/RID: unknown

IMDG: unknown

IATA: unknown

14.3 Transport hazard class(es)

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

14.4 Packing group, if applicable

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

14.5 Environmental hazards

ADR/RID: no

IMDG: no

IATA: no

14.6 Special precautions for user

no data available

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

no data available

15.Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
L-glutamine	L-glutamine	56-85-9	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.

16.Other information

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority.

The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

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. Changzhou Extraordinary Pharmatech co., LTD not be held liable for any damage resulting from handling.