

## SAFETY DATA SHEET

### 1. IDENTIFICATION

Trade name	<b>BeriCos® GSH</b>
Substance name	Glutathione
INCI Name	Glutathione
Chemical Name	L-gamma-glutamyl-L-cysteinylglycine
Recommended use Restrictions on use	Antioxidant, Skin Conditioning for cosmetic. For industrial use only.
Manufacturer	Beri Pharma Co., Ltd.
Address	No. 2 Nanhua Fourth Road, Nanshui Town, Zhuhai, China
Tel	+86 756 8699456
Email	sales@zhberi.com

### 2. HAZARD IDENTIFICATION

Hazard Class and category code regulation EC 1272/2008 (CLP) & Globally Harmonized System of Classification and Labelling of Chemicals (GHS Rev. 9, 2021)

Hazard Class and Category Code(s)	Not a hazardous substance or mixture
Hazard statement code(s)	Not a hazardous substance or mixture
Pictogram	Not a hazardous substance or mixture
Signal word	Not a hazardous substance or mixture

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance	CAS No.	EC No.	Hazard statement code(s)	Percent (w/w) approx.
Glutathione	70-18-8	200-725-4	—	100%

### 4. FIRST AID MEASURES

General	If exposed or concerned: Get medical advice/attention.
Inhalation	Remove to fresh air. If breathing has ceased give artificial respiration. Obtain immediate medical attention.
Skin contact	Remove contaminated clothing and wash affected area with soap and water immediately. If irritation or redness occurs obtain immediate medical attention.
Eye contact	Remove contact lenses, if worn and rinse open eye with at least 15 minutes under running water and apply sterile protective bandage. Obtain medical attention immediately.
Ingestion	Never give anything by mouth if patient is unconscious. Do not induce vomiting. Rinse mouth with water and obtain immediate medical attention.

### 5. FIRE FIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Exposure hazards	Carbon oxides, nitrogen oxides
Fire fighting procedures	Wear self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.
Protective equipment	A self-contained breathing apparatus and suitable protective clothing should be worn by fire fighters.
Special hazards by the product itself	None known

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions	Do not empty into drains / surface water.
Disposal	Disposal of waste in accordance with all applicable federal, state and local laws.
Methods for cleaning up	Take up mechanically or sweep up carefully and transfer to a suitable container for recovery or waste disposal (see section 13 disposal consideration). Avoid generation of dust. Ventilate the area and wash spill site after material pick-up is complete.

## 7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection
Storage	Store in cool place. Keep container tightly closed in a dry and well ventilated place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit	No data available
Exposure controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Occupational exposure controls	Wear recommended personal protective equipment as details below:
Personal protection	Chemical resistant gloves & safety glasses is must
Respiratory protection	Seek professional advice prior to respirator selection. Atmospheric level should be maintained below the exposure limit. If airborne concentrations is high use mask or respirator.
Hand protection	Wear chemical protective gloves
Eye protection	Wear safety glasses
Skin protection	Wear chemically protective clothing
Work practices	Eye wash facilities and a safety shower should be easily accessible. Before breaks and at the end of work thoroughly wash hands with soap and water. Wash contaminated clothing before use. Clean footwear before use.
Environmental exposure controls	All necessary precautions must be taken to avoid release into the environment. Refer to Local, State or Nationals Legislations for environment and pollution control.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Crystalline Powder
Color	White or off-white
Odour	Slight characteristic
Melting point	192-195°C
Boiling point	No data available
Decomposition Temperature	No data available
Flammability	Nonflammable
Explosion limit	No data available
Flash point	410.1±32.9 °C

PH value	2.5
Viscosity	Not applicable
Vapor pressure(20°C, kPa)	Not applicable
Density / relative density	Not applicable
lg P	-4.23

## 10. STABILITY AND REACTIVITY

Reactivity	No hazardous reactions if stored and handled as prescribed/indicated.
Chemical stability	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions	Usual precautions for handling of chemicals should be observed.
Conditions to avoid	See SDS section 7 - Handling and storage.
Incompatible materials	Avoid contact with oxidizing substances
Hazardous decomposition products	No hazardous decomposition products known.

## 11. TOXICOLOGICAL DATA

<b>Acute toxicity</b>	<b>The product should not be classified as an acute toxic substance.</b> <b>Oral:</b> LD50- Lethal dose:5000mg/kg ( Mouse ) <b>Inhalation:</b> LD50- Lethal dose: 4020 mg/kg ( Mouse ) <b>Subcutaneous:</b> LD50- Lethal dose:5000mg/kg ( Mouse ) <b>Intravenous:</b> LD50- Lethal dose:2238mg/kg ( Mouse ) <b>Intramuscular:</b> LD50- Lethal dose:4000mg/kg ( Mouse )
<b>Irritation</b>	<b>Skin contact :</b> Not irritating( OECD Guideline 404, rabbit). <b>Eye contact:</b> No irritation or Slight irritation.
<b>Respiratory/Skin sensitization</b>	There is no evidence of a skin-sensitizing potential.
<b>Genetic toxicity</b>	The product should not be classified as a genetic toxicity substance. Ames test:35 umol/plate(Bacteria - Salmonella Typhimurium)
<b>Carcinogenicity</b>	The chemical structure does not suggest a specific alert for such an effect.
<b>Reproductive toxicity</b>	The chemical structure does not suggest a specific alert for such an effect.
<b>Developmental toxicity</b>	No data was available concerning toxicity to development.
<b>Specific target organ toxicity (single exposure)</b>	No data was available concerning STOT single.
<b>Repeated dose toxicity and Specific target organ toxicity (repeated exposure)</b>	No data available.
<b>Aspiration hazard</b>	No aspiration hazard expected under normal conditions

## 12. ECOLOGICAL INFORMATION

<b>Aquatic toxicity</b>	No toxic for aquatic organisms.
<b>Persistence and degradability</b>	Biodegradation in water: Readily biodegradable .
<b>Bioaccumulation</b>	Low bioaccumulation for its' well solubility(lg P.: -4.23)
<b>Mobility in soil (and other compartments if available)</b>	Not applicable (for its' readily biodegradable)

## 13. DISPOSAL CONSIDERATIONS



Product Disposal	Spillages should be disposed at an authorized site in accordance with local regulations. Dissolve and mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contact a licensed professional waste disposal service to dispose of this material.
Uncleaned Containers	Consider local reuse or recycling. If this is not possible, dispose of as for product.

#### 14. TRANSPORT INFORMATION

UN number	None.(Not dangerous goods)
UN proper shipping name:	None.(Not dangerous goods)
Class	Not classified
Packaging group	None.(Not dangerous goods)
Environnemental hazards	No
Marine pollutant	No
ADR/RID	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

#### 15. REGULATORY INFORMATION

According to Directive 67/548/EEC or 1999/45/EC EEC Directives:

Symbol(s)	Not a hazardous substance or mixture
R Phrase(s)	Not a hazardous substance or mixture
S Phrase (s)	Not a hazardous substance or mixture

#### 16. OTHER INFORMATION

The information contained in the safety data sheet (SDS) has been compiled from data considered to be accurate. This data is believed to be reliable, however it must be pointed out that values for certain properties are known to vary from source to source. This data is not to be construed as absolutely complete since additional data may be desirable when particular conditions or circumstances exist. It is the responsibility of the user to determine the best precautions necessary for the safe handling and use of this product for his applications. This data relates only to the specific material designated and not to be used in combination with any other material. Many federal and state regulations pertain directly or indirectly to the product end use and disposal of containers and unused material. It is the purchaser's responsibility to familiarize themselves with all applicable regulations. Beri Pharma Co., Ltd. makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances nor assumes any liabilities from the use of its products or information provided herein.