

## Glutathione (CAS No. 70-18-8) SDS

CAS No: 70-18-8

Molecular Weight: 307.32348

Molecular Formula: C<sup>10</sup>H<sup>17</sup>N<sup>3</sup>O<sup>6</sup>S

Names and Identifiers

Properties

Safety and Handling

NMR Spectrum

Synthesis Route

Precursor and Product

Computational chemical data

586 Suppliers

## SDS

## SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0

Creation Date: Aug 12, 2017

Revision Date: Aug 12, 2017

## 1. Identification

## 1.1 GHS Product identifier

Product name: Glutathione

## 1.2 Other means of identification

Product number: -  
Other names: Reduced glutathione

## 1.3 Recommended use of the chemical and restrictions on use

Identified uses: For industry use only.  
Uses advised against: no data available

## 1.4 Supplier's details

Company Address: WWW.GuideChem.COM  
8F, Block C, No.3 Building, Zijin Plaza, No.701, Gudun Road, Hangzhou, Zhejiang 310030, China  
Telephone: +86-571-89739798  
Fax: 86(21)54365166

## 1.5 Emergency phone number

Emergency phone number: +86-571-89739798  
Service hours: Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

## 2. Hazard identification

## 2.1 Classification of the substance or mixture

Not classified.

## 2.2 GHS label elements, including precautionary statements

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

## 2.3 Other hazards which do not result in classification

none

## 3. Composition/information on ingredients

## 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
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## Recommended Suppliers

## L-Glutathione reduced

Hangzhou Dayangchem Co., Ltd.



FOB Price:300 USD/Kilogram

Min.Order:1 Kilogram

Purity:98.0%

Supply Ability:2 Year/Metric Ton

Formula:C10H17N3O6S

Payment:L/C,D/A,D/P,T/T,

Appearance:White cryst. powder

## L-Glutathione reduced

HANGZHOU CLAP TECHNOLOGY C



FOB Price:1 USD/Kilogram

Min.Order:10 Kilogram

Purity:98~101%

Supply Ability:1000000 Month/Kilogra

Formula:C10H17N3O6S

Payment:L/C,T/T,Western Union,,PAY

Appearance:white crystalline powder

## cas 70-18-8 Glutathione

Qixian Baitai New Material Co., LTD



FOB Price:1 USD/Kilogram

Min.Order:1 Kilogram

Purity:99.0%min

Supply Ability:10 Month/Metric Ton

Formula:C10H17N3O6S

Appearance:Crystal

## Glutathione

Hanhong Medicine Technology (Hube



FOB Price:20 USD/Kilogram

Min.Order:100 Gram

Purity:99%

Supply Ability:20 Month/Metric Ton

Formula:C10H17N3O6S

Appearance:white powder

## White Glutathione Powder with t

Wuhan Demeikai Biotechnology Co.,



Glutathione	Glutathione	70-18-8	none	100%
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#### 4. First-aid measures

##### 4.1 Description 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

###### Absorption, Distribution and Excretion

Research suggests that glutathione is not orally bioactive, and that very little of oral glutathione tablets or capsules is actually absorbed by the body.

#### 5. Fire-fighting measures

##### 5.1 Extinguishing media

###### Suitable extinguishing media

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

##### 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

Pick up and arrange disposal. Sweep up and shovel. 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

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

#### 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)

FOB Price:15 USD/BAG

Min.Order:10 Gram

Purity:99

Supply Ability:100 Month/Kilogram

Formula:C10H17N3O6S

Appearance:White

#### cas 70-18-8 Glutathione

Hebei Crovell Biotech Co. Ltd



FOB Price:1 USD/Kilogram

Min.Order:1 Kilogram

Purity:99%

Supply Ability:100000 Month/Kilogram

Formula:C10H17N3O6S

Appearance:powder

#### Factory supply Glutathione CAS

Hebei Boca Biological Technology C



FOB Price:10 USD/Kilogram

Min.Order:1 Kilogram

Purity:99.0%min

Supply Ability:1000 Month/Kilogram

Formula:C10H17N3O6S

Appearance:powder

#### I-glutathione reduced glutathion

Hebei Zhanyao Biotechnology Co.,Ltd



FOB Price:10 USD/Metric Ton

Min.Order:1 Kilogram

Purity:99%

Supply Ability:100 Month/Metric Ton

Formula:C10H17N3O6S

Appearance:white powder

**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	no data available
Odour	no data available
Melting point/ freezing point	345\u00b0C(lit.)
Boiling point or initial boiling point and boiling range	150\u00b0C(lit.)
Flammability	no data available
Lower and upper explosion limit / flammability limit	no data available
Flash point	76\u00b0C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	292.5 mg/mL
Partition coefficient n-octanol/water (log value)	no data available
Vapour pressure	no data available
Density and/or relative density	1.441 g/cm <sup>3</sup>
Relative vapour density	no data available
Particle characteristics	no data available

**10. Stability and reactivity****10.1 Reactivity**

no data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

no data available

**10.5 Incompatible materials**

no data available

**10.6 Hazardous decomposition products**

no data available

**11. Toxicological information****Acute toxicity**

Oral: no data available

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**

no data available

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**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
Glutathione	Glutathione	70-18-8	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	Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Listed.

## 16. Other information

### Information on revision

Creation Date Aug 12, 2017  
Revision Date Aug 12, 2017

### Abbreviations and acronyms

CAS: Chemical Abstracts Service  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
RID: Regulation concerning the International Carriage of Dangerous Goods by Rail  
IMDG: International Maritime Dangerous Goods  
IATA: International Air Transportation Association  
TWA: Time Weighted Average  
STEL: Short term exposure limit  
LC50: Lethal Concentration 50%  
LD50: Lethal Dose 50%  
EC50: Effective Concentration 50%

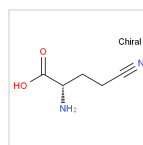
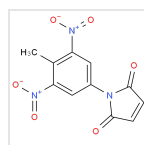
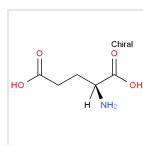
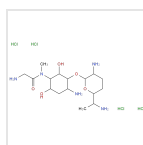
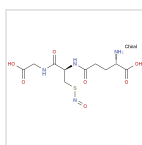
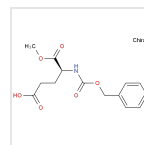
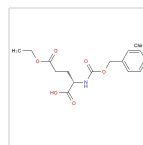
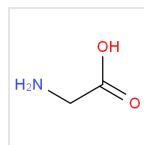
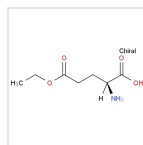
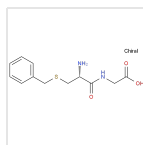
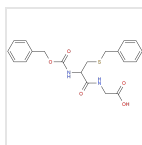
### References

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>  
HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>  
IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>  
eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)  
CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>  
ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>  
ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>  
Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>  
ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

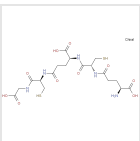
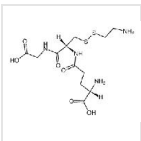
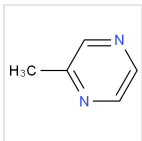
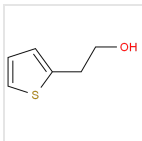
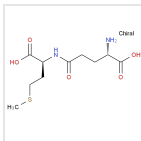
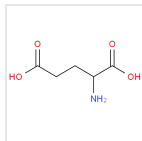
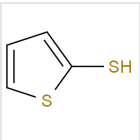
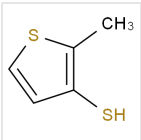
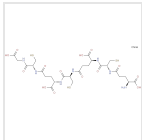
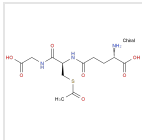
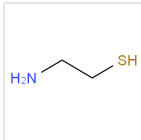
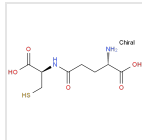

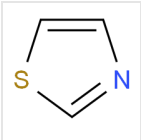
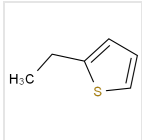
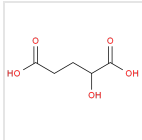
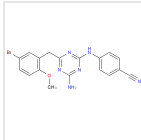
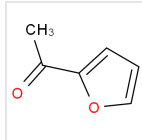
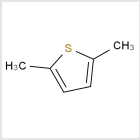
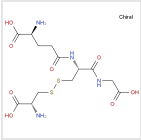

*Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.*

## Precursor and Product











Precursor:



**Product**

					
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7783-06-4	288-47-1	872-55-9	2889-31-8	118433-03-7	1192-62-7
					
638-02-8	13081-14-6	100922-53-0			

## Related Products' MSDS

	cas:815610-65-2 msds GLUTATHIONE-(GLYCINE-13C2,15N1)		cas:149438-56-2 msds N,S-BIS-FMOC-GLUTATHIONE
	cas:289711-21-3 msds D,L-SULFORAPHANE GLUTATHIONE		cas:103239-24-3 msds GLUTATHIONE DISODIUM SALT OXIDIZED FORM
	cas:108457-42-7 msds Glycine, N-(N-D-γ-glutamyl-L-cysteinyl)-		cas:31702-37-1 msds S-(4-bromobenzyl)glutathione
	cas:85-31-4 msds 6-THIOGUANOSINE		cas:64889-81-2 msds Glutathione-S-acetaminophen conjugate
	cas:28747-20-8 msds S-(2-hydroxyethyl)glutathione		cas:6803-19-6 msds S-(P-NITROBENZYL)GLUTATHIONE