

## Material Safety Data Sheet

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

#### 1.1 Product identifiers

Product name	L-Cystine
Product number	A070060
Brand	3ASenrise
CAS number	56-89-3

#### 1.2 Details of the supplier of the safety data sheet

Company: Anhui Senrise Technology Co., Ltd.

Address: No.88 Weisan Road, High-Tech Industrial Development Zone, Anqing, Anhui

Post code: 246003

Tel: 400-005-6266

Fax: 0556-5555368

Email: service@3asenrise.com

#### 1.3 Emergency telephone

Emergency telephone: 0556-5500208

#### 1.4 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For R&D use only. Not for pharmaceutical, household or other uses.

### 2 HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

#### 2.2 GHS label elements, including precautionary statements

##### Pictogram

**Signal word:** No data available

##### Hazard statement(s)

No data available

##### Precautionary statement(s)

##### Prevention

No data available

##### Response

No data available

##### Storage

No data available

##### Disposal

No data available

#### 2.3 Physical and chemical hazards

No data available

## 2.4 Health hazards

No data available

## 2.5 Environmental hazards Code

No data available

## 2.6 Other hazards

No data available

# 3 COMPOSITION/INFORMATION ON INGREDIENTS

## Substance / Mixture: Substance

### 3.1 Substance

Name	L-Cystine
Formula	C6H12N2O4S2
Molecular Weight	240.29
CAS	56-89-3
Concentration	99%

## 4 FIRST AID MEASURES

### 4.1 Description of 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

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

No data available.

## 5 FIREFIGHTING MEASURES

### 5.1 Extinguishing media

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

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides (NO<sub>x</sub>) Sulfur oxides

### 5.3 Advice for firefighters

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 breathing vapours, mist or gas. Ensure adequate ventilation.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

## 6.4 Reference to other section

For disposal see section 13.

## 7 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

#### Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Long term storage: RT

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

No data available.

### 8.2 Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

#### Skin 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.

#### Body protection

Flame retardant antistatic protective clothing.

#### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

#### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance	White to whitish solid
b) Odor	No data available
c) pH	No data available
d) Melting point/freezing point	240 ° C
e) Initial boiling point and boiling range	No data available
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Vapor pressure	No data available
j) Vapor density	No data available
k) Density	No data available

l) Water solubility	No data available
m) Partition coefficient: n-octanol/water	No data available
n) Autoignition temperature	No data available
o) Decomposition temperature	No data available
p) Flammability	No data available

## 10 STABILITY AND REACTIVITY

### 10.1 Chemical stability

No data available.

### 10.2 Conditions to avoid

No data available.

### 10.3 Incompatible materials

Strong oxidizing agents

### 10.4 Hazardous decomposition products

In the event of fire: see section 5.

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Acute toxicity

LD50 Oral

- Rat - male and female - > 25,000 mg/kg

LC50 Inhalation

No data available

LD50 Dermal

- Rat - male and female - > 2,000 mg/kg

### 11.2 Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation - 4 h

### 11.3 Serious eye damage/eye irritation

Eyes - Rabbit Result: No eye irritation - 24 h

### 11.4 Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse Result: negative

### 11.5 Germ cell mutagenicity

Test Type: Chromosome aberration test in vitro Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473

Result: negative Remarks: The value is given in analogy to the following su

### 11.6 Carcinogenicity

No data available

### 11.7 Reproductive toxicity

No data available

### 11.8 Specific target organ toxicity - single exposure

No data available

### 11.9 Specific target organ toxicity - repeated exposure

No data available

### 11.10 Aspiration hazard

no data available.

### 11.11 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 93 Days - NOAEL (No observed adverse effect level) - 600 mg/kg

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish:

semi-static test LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96 h

Toxicity to daphnia and other aquatic:

semi-static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h

Toxicity to algae:

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 100 mg/l - 72 h

Toxicity to bacteria:

static test EC50 - activated sludge - > 1,000 mg/l - 3 h

## **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d Result: ca. 98 % - Readily

biodegradable. Remarks: The value is given in analogy to the following substances: L-cysteine

## **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 Waste treatment methods**

### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Observe all federal, state and local regulations when disposing of the substance.

### **Contaminated packaging**

Disposal must be made according to official regulations.

# **14 TRANSPORT INFORMATION**

## **14.1 UN number**

ADR/RID: - IMDG: - IATA: -

## **14.2 UN proper shipping name**

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA-DGR: Not dangerous goods

## **14.3 Transport hazard class(es)**

ADR/RID: - IMDG: - IATA: -

## **14.4 Packaging group**

ADR/RID: - IMDG: - IATA: -

## **14.5 Environmental hazards**

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

## **14.6 Special precautions for user**

No data available

# **15. REGULATORY INFORMATION**

## **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Applicable regulations

Please pay attention to waste disposal and meet the requirements of local regulations.

# **16. OTHER INFORMATION**

## **Abbreviations and acronyms**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

CAS: Chemical Abstracts Service (division of the American Chemical Society)

**Further information**

The above safety technical information is for reference only, because many physical and chemical properties are not entirely clear. Please consult information carefully before use and use after confirmation.

Anhui Senrise Technology Co., Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. More terms of use, see invoice information for details.

Tel: +86 -400-005-6266 Fax: +86 -0556-5555368 E-mail: Service@3asenrise.com

Add: No.88 Weisan Road, High-Tech Industrial Development Zone, Anqing, Anhui