

# Material Safety Data Sheet

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

### 1.1 Product identifiers

Product name	1-Propanethiol
Product number	W330270
Brand	3ASenrise
CAS number	107-03-9

### 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

Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 4), H302

Serious eye damage/eye irritation (Category 2A), H319

Skin sensitization (Sub-category 1B), H317

Specific target organ toxicity – single exposure (Category 3), respiratory tract irritation, H335

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

### 2.2 GHS label elements, including precautionary statements

#### Pictogram



Signal word: Danger

Hazard statement(s)

H319 Causes serious eye irritation.

H225 Highly Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H410 Very toxic to aquatic life with long lasting effects.

### **Precautionary statement(s)**

#### **Prevention**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P270 Do not eat, drink or smoke when using this product.  
P264 Wash hands thoroughly after handling.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P271 Use only outdoors or in a well-ventilated area.

#### **Response**

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 IF eye irritation persists: Get medical advice/attention.  
P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.  
P391 Collect spillage. Hazardous to the aquatic environment  
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P304+P340+P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P301+P312+P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

#### **Storage**

P405 Store locked up.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.

#### **Disposal**

P501 Dispose of contents/ container to an approved waste disposal plant.

### **2.3 Physical and chemical hazards**

H225 Highly Flammable liquid and vapour.

### **2.4 Health hazards**

H319 Causes serious eye irritation.  
H302 Harmful if swallowed.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.

### **2.5 Environmental hazards Code**

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

## 2.6 Other hazards

No data available

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

### Substance / Mixture: Substance

#### 3.1 Substance

Name	1-Propanethiol
Formula	C3H8S
Molecular Weight	76.16
CAS	107-03-9
Concentration	98%

## 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

Carbon dioxide (CO<sub>2</sub>) Foam Dry powder

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

Carbon oxides Sulfur oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient

### 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	Colorless to light yellow liquid
b) Odor	Stench.
c) pH	No data available
d) Melting point/freezing point	-113 ° C - lit.
e) Initial boiling point and boiling range	67 - 68 ° C - lit.
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	-20 ° C - closed cup
h) Evaporation rate	No data available
i) Vapor pressure	163 hPa at 20 ° C
j) Vapor density	No data available
k) Density	0.841 g/mL at 25 ° C - lit.
l) Water solubility	1.9 g/l at 25 ° C

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 - 1,790 mg/kg

LC50 Inhalation

- Rat - male and female - 4 h - > 5,663 mg/l - vapor

LD50 Dermal

- Rabbit - male and female - > 1,680 mg/kg

### 11.2 Skin corrosion/irritation

No data available

### 11.3 Serious eye damage/eye irritation

No data available

### 11.4 Respiratory or skin sensitization

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

### 11.5 Germ cell mutagenicity

No data available

### 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

RTECS: TZ7300000 Nausea, Headache, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish:

static test LC50 - Pimephales promelas (fathead minnow) - 1.3 mg/l - 96 h

Toxicity to daphnia and other aquatic:

EC50 – Daphnia magna (Water flea) – 0.07 mg/l – 48 h

Toxicity to algae:

ErC50 – Pseudokirchneriella subcapitata – 3 mg/l – 72 h

Toxicity to bacteria:

static test EC50 – activated sludge – 880.5 mg/l – 3 h

## **12.2 Persistence and degradability**

Biodegradability aerobic – Exposure time 28 d Result: 17 % – Not readily biodegradable.

## **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: 2402 IMDG: 2402 IATA: 2402

## **14.2 UN proper shipping name**

ADR/RID: 1-PROPANETHIOL

IMDG: 1-PROPANETHIOL

IATA-DGR: 1-Propanethiol

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

ADR/RID: 3 IMDG: 3 IATA: 3

## **14.4 Packaging group**

ADR/RID: II IMDG: II IATA: II

## **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

Regulations on the Control over Safety of Dangerous Chemicals.

This product is included in the list of dangerous chemicals.

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.

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