

## Material Safety Data Sheet

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

#### 1.1 Product identifiers

|                |                         |
|----------------|-------------------------|
| Product name   | 3-(Chloromethyl)heptane |
| Product number | D020108                 |
| Brand          | 3ASenrise               |
| CAS number     | 123-04-6                |

#### 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 3), H226

Skin corrosion/irritation (Category 2), H315

Skin sensitization (Category 1), H317

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: Warning**

##### Hazard statement(s)

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

## Precautionary statement(s)

### Prevention

- 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.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

### Response

- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
- P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
- P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P391 Collect spillage. Hazardous to the aquatic environment

### Storage

- 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

- H226 Flammable liquid and vapour.

## 2.4 Health hazards

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.

## 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             | 3-(Chloromethyl)heptane           |
| Formula          | C <sub>8</sub> H <sub>17</sub> Cl |
| Molecular Weight | 148.67                            |
| CAS              | 123-04-6                          |
| 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**

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

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

Carbon oxides Hydrogen chloride gas Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire.

#### **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 liquid                  |
| b) Odor   | No data available                 |
| c) pH   | No data available                 |
| d) Melting point/freezing point                 | No data available                 |
| e) Initial boiling point and boiling range      | 174 ° C at 1,013 hPa              |
| f) Upper/lower flammability or explosive limits | No data available                 |
| g) Flash point                                  | 60 ° C – open cup                 |
| h) Evaporation rate                             | No data available                 |
| i) Vapor pressure                               | 1.5 hPa at 20 ° C                 |
| j) Vapor density                                | No data available                 |
| k) Density                                      | 0.877 g/cm <sup>3</sup> at 20 ° C |
| l) Water solubility                             | 3.1 g/l at 20 ° C                 |
| m) Partition coefficient: n-octanol/water       | log Pow: 4.541 –                  |
| 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 – > 5,653 mg/kg

LC50 Inhalation

- Rat - male and female - 8 h - > 11.1 mg/l - vapor

LD50 Dermal

- Rabbit - 15,800 mg/kg

### **11.2 Skin corrosion/irritation**

Skin - Rabbit Result: Skin irritation

### **11.3 Serious eye damage/eye irritation**

Eyes - Rabbit Result: No eye irritation

### **11.4 Respiratory or skin sensitization**

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

### **11.5 Germ cell mutagenicity**

Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation Result: negative

### **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: MI8760000

## **12 ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

Toxicity to fish:

static test LC50 - Danio rerio (zebra fish) - > 15.4 mg/l - 96 h

Toxicity to daphnia and other aquatic:

static test EC50 - Daphnia magna (Water flea) - 0.0375 mg/l - 48 h

Toxicity to algae:

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 1.14 mg/l - 72 h

Toxicity to bacteria:

No data available

### **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 21 d Result: 23 % - 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: 1993 IMDG: 1993 IATA: 1993

### **14.2 UN proper shipping name**

ADR/RID: FLAMMABLE LIQUID, N. O. S. (3-(Chloromethyl)heptane)

IMDG: FLAMMABLE LIQUID, N. O. S. (3-(Chloromethyl)heptane)

IATA-DGR: Flammable liquid, n. o. s. (3-(Chloromethyl)heptane)

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

ADR/RID: 3 IMDG: 3 IATA: 3

### **14.4 Packaging group**

ADR/RID: III IMDG: III IATA: III

### **14.5 Environmental hazards**

ADR/RID: yes IMDG Marine pollutant: yes 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.

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