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## Material Safety Data Sheet

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

#### 1.1 Product identifiers

Product name Methyltrioctylammonium chloride  
Product number E010111  
Brand 3ASenrise  
CAS number 5137-55-3

#### 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

Acute toxicity, Oral (Category 3), H301  
Skin corrosion/irritation (Category 1A), H314  
Serious eye damage/eye irritation (Category 1), H318  
Reproductive toxicity (Category 1B), H360  
Specific target organ toxicity – repeated exposure (Category 2), H373  
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)

H314 Causes severe skin burns and eye damage.

H410 Very toxic to aquatic life with long lasting effects.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H301 Toxic if swallowed.

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

#### **Prevention**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

#### **Response**

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P391 Collect spillage. Hazardous to the aquatic environment

P308+P313 IF exposed or concerned: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P301+P310+P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

#### **Storage**

P405 Store locked up.

#### **Disposal**

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

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

No data available

### **2.4 Health hazards**

H315 Causes skin irritation.

H318 Causes serious eye damage.

H301 Toxic if swallowed.

### **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             | Methyltrioctylammonium chloride     |
| Formula          | C <sub>25</sub> H <sub>54</sub> ClN |
| Molecular Weight | 404.16                              |
| CAS              | 5137-55-3                           |
| Concentration    | 98%(T)                              |

## **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 Nitrogen oxides (NO<sub>x</sub>) Hydrogen chloride gas Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the even

### **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 yellowish brown to dark yellow solid or liquid |
| b) Odor   | No data available                                       |
| c) pH   | 3.34 at 24.5 ° C  |
| d) Melting point/freezing point                 | -20 ° C   |
| e) Initial boiling point and boiling range      | 198.9 ° C   |
| f) Upper/lower flammability or explosive limits | No data available                                       |
| g) Flash point                                  | 113 ° C   |
| h) Evaporation rate                             | No data available                                       |
| i) Vapor pressure                               | No data available                                       |
| j) Vapor density                                | No data available                                       |
| k) Density                                      | 0.884 g/cm <sup>3</sup>                                 |
| l) Water solubility                             | 0.021 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 – male – 223 mg/kg

LC50 Inhalation

No data available

LD50 Dermal

– Rabbit – male and female – 4,300 mg/kg

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

No data available

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

Eyes – In vitro study Result: Severe eye irritation

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

No data available

#### **11.5 Germ cell mutagenicity**

No data available

#### **11.6 Carcinogenicity**

No data available

#### **11.7 Reproductive toxicity**

May damage the unborn child. May damage fertility.

#### **11.8 Specific target organ toxicity - single exposure**

No data available

#### **11.9 Specific target organ toxicity - repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

#### **11.10 Aspiration hazard**

no data available.

#### **11.11 Additional Information**

Repeated dose toxicity – Mouse – male and female – Oral – NOAEL (No observed adverse effect level) – 200 mg/kg 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 – Danio rerio (zebra fish) – 0.137 mg/l – 96 h

Toxicity to daphnia and other aquatic:

static test EC50 – Daphnia magna (Water flea) – 0.031 mg/l – 48 h

Toxicity to algae:

static test ErC50 – Desmodesmus subspicatus (green algae) – 0.56 mg/l – 72 h

Toxicity to bacteria:

No data available

#### **12.2 Persistence and degradability**

Biodegradability Result: 20.92 % – Inherently 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: 2922 IMDG: 2922 IATA: 2922

## 14.2 UN proper shipping name

ADR/RID: METHYLTRIOCTYLAMMONIUM CHLORIDE

IMDG: METHYLTRIOCTYLAMMONIUM CHLORIDE

IATA-DGR: Methyltrioctylammonium chloride

## 14.3 Transport hazard class(es)

ADR/RID: 8(6.1) IMDG: 8(6.1) IATA: 8(6.1)

## 14.4 Packaging group

ADR/RID: I IMDG: I IATA: I

## 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.

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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