

## Material Safety Data Sheet

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

#### 1.1 Product identifiers

Product name	Trimethylsilylacetylene
Product number	W320012
Brand	3ASenrise
CAS number	1066-54-2

#### 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 5), H303

Skin corrosion/irritation (Category 2), H315

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

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

##### Pictogram



##### Signal word: Danger

##### Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H225 Highly Flammable liquid and vapour.

H303 May be harmful if swallowed.

##### 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.  
P264 Wash hands thoroughly after handling.

## **Response**

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing.  
Rinse SKIN with water/shower.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P332+P313 IF SKIN irritation occurs: Get medical advice/attention.  
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.  
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

## **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**

H225 Highly Flammable liquid and vapour.

## **2.4 Health hazards**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H303 May be harmful if swallowed.

## **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	Trimethylsilylacetylene
Formula	C5H10Si
Molecular Weight	98.22
CAS	1066-54-2
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 Hydrogen chloride gas silicon 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.

### **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: 2-8° C

## **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	53 ° C
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	-34 ° C
h) Evaporation rate	No data available
i) Vapor pressure	216.106 hPa at 20 ° C
j) Vapor density	No data available
k) Density	0.709 g/mL at 25 ° C
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

No data available

### 10.4 Hazardous decomposition products

In the event of fire: see section 5.

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Acute toxicity

LD50 Oral

No data available

LC50 Inhalation

No data available

LD50 Dermal

No data available

## **11.2 Skin corrosion/irritation**

Mixture causes skin irritation.

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

Remarks: Mixture causes serious 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**

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**

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice. Components trimethylsilylacetylene Acute toxicity Oral:

Inhalation: Dermal: Skin corrosion/irritation Remarks: Serious eye damage/eye irritation

Remarks: Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity

Reproductive toxicity Specific target organ toxicity - single exposure Specific target organ toxicity - repeated exposure Aspiration hazard chlorotrimethylsilane Acute toxicity Acute toxicity estimate Oral - 100 mg/kg (Expert judgment) LC50 Inhalation - Rat - male and female - 4 h - 9.4 mg/l - vapor LD50 Dermal - Rabbit - male and female - 1,513 mg/kg Skin corrosion/irritation Skin - Rabbit Result: Causes burns. - 4 h Serious eye damage/eye irritation Eyes - Rabbit Result: Causes burns. Remarks: Causes serious eye damage.

Respiratory or skin sensitization Germ cell mutagenicity Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Result: negative Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Mouse lymphoma test Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Result: negative Method: OECD Test Guideline 475 Species: Rat - male - Bone marrow Result: negative Carcinogenicity Reproductive toxicity Specific target organ toxicity - single exposure Specific target organ toxicity - repeated exposure Aspiration hazard

## **12 ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

Toxicity to fish:

No data available

Toxicity to daphnia and other aquatic:

No data available

Toxicity to algae:

No data available

Toxicity to bacteria:

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**

Components trimethylsilylacetylene chlorotrimethylsilane Toxicity to fish semi-static test

LC50 – *Oncorhynchus mykiss* (rainbow trout) – 271 mg/l – 96 h Toxicity to daphnia semi-static

test EC50 – *Daphnia magna* (Water flea) – 124 mg/l and other aquatic – 48 h invertebrates

Toxicity to algae static test EC50 – *Pseudokirchneriella subcapitata* – 566 mg/l – 72 h

Toxicity to bacteria EC50 – activated sludge – 6,670 mg/l

## **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: TRIMETHYLSILYLACETYLENE

IMDG: TRIMETHYLSILYLACETYLENE

IATA-DGR: Trimethylsilylacetylene

### **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

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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