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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 2-Ethylhexanal  
Product number A030318  
Brand 3ASenrise  
CAS number 123-05-7

#### 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: +8653283889090

#### 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 sensitization (Category 1), H317 Reproductive toxicity (Category 2), H361

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

##### Pictogram



**Signal word: Warning**

##### Hazard statement(s)

H226 Flammable liquid and vapour.  
H317 May cause an allergic skin reaction.  
H361 Suspected of damaging fertility or the unborn child.  
H303 May be harmful if swallowed.  
H401 Toxic to aquatic life.

##### 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.

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.

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.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

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.

### **Storage**

P405 Store locked up.

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**

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

H303 May be harmful if swallowed.

## **2.5 Environmental hazards Code**

H401 Toxic to aquatic life.

## **2.6 Other hazards**

No data available

# **3 COMPOSITION/INFORMATION ON INGREDIENTS**

## **Substance / Mixture: Substance**

### **3.1 Substance**

Name	2-Ethylhexanal
Formula	C <sub>8</sub> H <sub>16</sub> O
Molecular Weight	128.21
CAS	123-05-7
Concentration	95%

# **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 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: No data available

### **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	mild
c) pH	No data available
d) Melting point/freezing point	< -90 ° C
e) Initial boiling point and boiling range	55 ° C at 18 hPa
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	44 ° C - closed cup
h) Evaporation rate	No data available
i) Vapor pressure	2.8 hPa at 23,4 ° C
j) Vapor density	No data available
k) Density	0.822 g/mL at 25 ° C
l) Water solubility	0.39 g/l at 20 ° C
m) Partition coefficient: n-octanol/water	No data available
n) Autoignition temperature	190 ° C at 1,013.25 hPa
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

Iron, Mild steel

### 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 - 2,600 mg/kg

LC50 Inhalation

- Rat - male and female - 4 h - > 6,83 mg/l

LD50 Dermal

- Rat - male and female - > 16,440 mg/kg

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

Skin - Rabbit Result: Irritating to skin. - 4 h

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

Eyes - Rabbit Result: No eye irritation - 24 h

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

No data available

### **11.5 Germ cell mutagenicity**

Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation Result: negative Test Type: In vivo micronucleus test Species: Mouse Application Route: Oral Method: Mutagenicity (micronucleus test) Result: neg

### **11.6 Carcinogenicity**

No data available

### **11.7 Reproductive toxicity**

Suspected human reproductive toxicant

### **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 - Inhalation RTECS: MN7525000

## **12 ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

Toxicity to fish:

No data available

Toxicity to daphnia and other aquatic:

static test EC50 - Daphnia magna (Water flea) - 4,7 mg/l - 48 h

Toxicity to algae:

static test EC50 - Pseudokirchneriella subcapitata (algae) - 6.9 mg/l - 72 h

Toxicity to bacteria:

Respiration inhibition EC50 - Sludge Treatment - 73.6 - 507.6 mg/l -30 min

### **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d Result: 71,8 % - 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: 1191 IMDG: 1191 IATA: 1191

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

ADR/RID: 2-ETHYLHEXANAL

IMDG: 2-ETHYLHEXANAL

IATA-DGR: 2-Ethylhexanal

### **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: 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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