

# Material Safety Data Sheet

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

### 1.1 Product identifiers

Product name	Phosphorus(V) oxychloride
Product number	W611039
Brand	3ASenrise
CAS number	10025-87-3

### 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 4), H302

Acute toxicity, Inhalation (Category 2), H330

Skin corrosion/irritation (Category 1), H314

Serious eye damage/eye irritation (Category 1), H318

Specific target organ toxicity - repeated exposure (Category 1), H372

### 2.2 GHS label elements, including precautionary statements

#### Pictogram



**Signal word: Danger**

#### Hazard statement(s)

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure.

## Precautionary statement(s)

### Prevention

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

P264 Wash hands thoroughly after handling.

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

P271 Use only outdoors or in a well-ventilated area.

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

P284 Wear respiratory protection.

### Response

P301+P312+P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

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

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

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

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.

P314 Get medical advice/attention if you feel unwell.

P363 Wash contaminated clothing before reuse.

### Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure.

## 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	Phosphorus(V) oxychloride
Formula	POCl <sub>3</sub>
Molecular Weight	153.33
CAS	10025-87-3
Concentration	99.5%

## 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**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

Oxides of phosphorus Hydrogen chloride gas Not combustible. Caution! in contact with water product releases: hydrochloric acid Fire may cause evolution of: Oxides of phosphorus, Hydrogen chloride gas May not get in touch with: Water Ambient fire may liber

### **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	odorless
c) pH	1 at 20 ° C
d) Melting point/freezing point	1.18 ° C at 1,013 hPa
e) Initial boiling point and boiling range	105.5 ° C at 1,013 hPa
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Vapor pressure	37 hPa at 20 ° C
j) Vapor density	No data available
k) Density	1.645 g/cm <sup>3</sup> 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

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 - 380 mg/kg

LC50 Inhalation

No data available

LD50 Dermal

No data available

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

Skin - Rabbit Result: Causes severe burns.

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

Eyes - Rabbit Result: Causes burns.

### **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 Method: OECD Test Guideline 471 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**

Inhalation - Causes damage to organs through prolonged or repeated exposure. - Respiratory Tract

### **11.10 Aspiration hazard**

no data available.

### **11.11 Additional Information**

Redness, corneal injury, Cough, Shortness of breath, Dizziness, Headache, chest pain, Nausea, Vomiting, Kidney injury may occur. Abdominal pain To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Decomposition of the substance with tissue moisture. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

## **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) - > 100 mg/l - 48 h

Toxicity to algae:

static test NOEC - Desmodesmus subspicatus (green algae) - 12.5 mg/l - 72 h

Toxicity to bacteria:

static test EC50 - activated sludge - > 1,000 mg/l - 3 h

### **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**

May be harmful to aquatic organisms due to the shift of the pH. Product reacts with water. Depending on the concentration, phosphorus compounds may contribute to the eutrophication of water supplies. Discharge into the environment must be avoided.

### **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: 1810 IMDG: 1810 IATA: 1810

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

ADR/RID: PHOSPHORUSOXYCHLORIDE

IMDG: PHOSPHORUSOXYCHLORIDE

IATA-DGR: PHOSPHORUSOXYCHLORIDE

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

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

#### **14.4 Packaging group**

ADR/RID: I IMDG: I IATA: -

#### **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.

Tel: +86 -400-005-6266 Fax: +86 -0556-5555368 E-mail: Service@3asenrise.com

Add: No.88 Weisan Road, High-Tech Industrial Development Zone, Anqing, Anhui