

## Material Safety Data Sheet

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

#### 1.1 Product identifiers

Product name	2,4-Difluoroaniline
Product number	D050234
Brand	3ASenrise
CAS number	367-25-9

#### 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, Dermal (Category 3), H311

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

##### Pictogram



**Signal word: Danger**

##### Hazard statement(s)

H227 Combustible liquid.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H333 May be harmful if inhaled.

##### Precautionary statement(s)

##### Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P264 Wash hands thoroughly after handling.

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

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

### **Response**

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

P302+P352+P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 IF SKIN irritation occurs: Get medical advice/attention.

P337+P313 IF eye irritation persists: Get medical advice/attention.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

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.

P405 Store locked up.

### **Disposal**

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

## **2.3 Physical and chemical hazards**

H227 Combustible liquid.

## **2.4 Health hazards**

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H333 May be harmful if inhaled.

## **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	2,4-Difluoroaniline
Formula	C <sub>6</sub> H <sub>5</sub> F <sub>2</sub> N
Molecular Weight	129.11
CAS	367-25-9
Concentration	99%

## **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**

Water 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 fluoride 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 event of

### **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 to light orange to light purple to yellow to brown liquid
b) Odor	No data available
c) pH	No data available
d) Melting point/freezing point	-7,5 ° C
e) Initial boiling point and boiling range	170 ° C at 1,004 hPa
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	62 ° C - c. c.
h) Evaporation rate	No data available
i) Vapor pressure	No data available
j) Vapor density	No data available
k) Density	1.268 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

- Rat - 820 mg/kg

LC50 Inhalation

- Rat - 4 h - 6.21 mg/l - dust/mist

LD50 Dermal

- Rat - 672 mg/kg

## 11.2 Skin corrosion/irritation

No data available

## 11.3 Serious eye damage/eye irritation

No data available

## 11.4 Respiratory or skin sensitization

No data available

## 11.5 Germ cell mutagenicity

Test Type: Ames test Test system: Salmonella typhimurium Result: positive Remarks: (National Toxicology Program)

## 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: BX3680000 Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. 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:

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

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: 2941 IMDG: 2941 IATA: 2941

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

ADR/RID: 2,4-Difluoroaniline

IMDG: 2,4-Difluoroaniline

IATA-DGR: 2,4-Difluoroaniline

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

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

### **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

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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