

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2024-01-28  
Print Date: 2024-02-04

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Acrolein  
Product Number : A112346  
Brand : aladdin  
CAS-No. : 107-02-8

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co., Ltd  
Address : 36 Xinjinqiao Road, Shanghai  
Telephone : 400-620-6333  
Fax : no data available

### 1.4 Emergency telephone number

Emergency Phone : 0532-83889090

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Inhalation (Category 1), H330

Acute toxicity, Dermal (Category 3), H311

Skin corrosion/irritation (Category 1B), H314

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

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)

H225 Highly Flammable liquid and vapor  
 H311 Toxic in contact with skin  
 H314 Causes severe skin burns and eye damage  
 H410 Very toxic to aquatic life with long lasting effects  
 H300+H330 Fatal if swallowed or if inhaled

Precautionary statement(s)

P210 Keep away from heat, hot surface, sparks, open flames and other ignition sources. - 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.  
 P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
 P264 Wash hands [and ...] thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P271 Use only outdoors or in a well-ventilated area.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P284 [In case of inadequate ventilation] Wear respiratory protection.  
 P391 Collect spillage.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].  
 P361+P364 Take off immediately all contaminated clothing and wash it before reuse.  
 P370+P378 In case of fire: Use ... to extinguish.  
 P405 Store locked up.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P403+P235 Store in a well-ventilated place. Keep cool.  
 P501 Dispose of contents/container to an approved waste disposal plant.  
 P301+P310+P330 IF SWALLOWED: Rinse mouth. 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.  
 P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. If contact lenses are worn and can be easily removed, remove Contact lenses. Continue rinsing. Immediately call an emergency center/doctor.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Synonyms	: 2-Propenal
Formula	: C3H4O
Molecular weight	: 56.06
CAS No.	: 107-02-8
EC-NO.	: no data available

Component	Classification	Concentration
Acrolein	no data available	reagent grade

### SECTION 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. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

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

#### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

Unsuitable extinguishing media  
no data available

## 5.2 Special hazards arising from the substance or mixture

Carbon 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 with air at ambient temperatures.

## 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 5.4 Further information

Use water spray to cool unopened containers.

---

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 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 (see section 13).

### 6.4 Reference to other sections

no data available

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature: 2 - 8 °C Light sensitive. Store under inert gas. Over time, pressure may increase causing containers to burst. Handle and open container with care. Heat- and air-sensitive.

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

### 7.3 Specific end use(s)

no data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

no data available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	form: liquid color: Colorless to Yellow
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	-88°C
f) Initial boiling point and boiling range	52.5°C
g) Flash point	< -18°C
h) Evaporation rate	no data available

Shanghai Aladdin Biochemical Technology Co., Ltd.

No. 809, Chuhua Branch Road, Fengxian District, Shanghai

i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	0.839
n) Water solubility	Soluble in water, easily soluble in most organic solvents such as alcohol and acetone.
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

## 9.2 Other safety information

no data available

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

Vapours may form explosive mixture with air.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

May polymerize on exposure to light. Air Heat. Warming. 10.4 Incompati

### 10.5 Incompatible materials

Oxidizing agents, Oxygen, Bases, Strong acids

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

---

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Mouse - male - 13.9 mg/kg (OECD Test Guideline 401)

Shanghai Aladdin Biochemical Technology Co., Ltd.

No. 809, Chuhua Branch Road, Fengxian District, Shanghai

LD50 Oral - Rat - 26 mg/kg

LC50 Inhalation - Hamster - male and female - 4 h - 0.058 mg/l - vapor Remarks: (ECHA) Acute toxicity estimate  
Dermal - 300 mg/kg (Expert judgment)

Skin corrosion/irritation

Remarks: Causes skin burns. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

Test Type: Ames test Test system: *S. typhimurium* Metabolic activation: with and without metabolic activation

Result: negative Remarks: (ECHA) Test Type: Chromosome aberration test in vitro Test system: Chinese hamster

ovary cells Metabolic activation: with and without metabolic activation Result: negative Remarks: (ECHA) Test Type:

sister chromatid exchange assay Test system: Chinese hamster ovary cells Metabolic activation: with and without

metabolic activation Result: negative Remarks: (ECHA) Test Type: In vitro mammalian cell gene mutation test Test

system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Result: negative

Remarks: (ECHA) Test Type: Chromosome aberration test Species: Rat Cell type: Bone marrow Application Route:

Intraperitoneal Result: negative Remarks: (ECHA)

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

Corrosive to the respiratory tract.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

---

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish semi-static test LC50 - *Pimephales promelas* (fathead minnow) - 0.019 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates EC50 - *Daphnia magna* (Water flea) - 0.03 mg/l - 48 h Remarks: (ECOTOX Database)

Toxicity to algae static test ErC50 - *Desmodesmus subspicatus* (green algae) - 0.061 mg/l - 72 h Remarks: (ECHA)

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

Toxicity to bacteria EC50 - activated sludge - ca. 400 mg/l - 30 min Remarks: (ECHA)

Toxicity to fish(Chronic toxicity) flow-through test NOEC - Pimephales promelas (fathead minnow) - 0.011 mg/l - 60 d Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) flow-through test NOEC - Daphnia magna (Water flea) - 0.017 mg/l - 64 d Remarks: (ECHA)

## 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 7 d Result: 100 % - Readily biodegradable. Remarks: (ECHA)

## 12.3 Bioaccumulative potential

Bioaccumulation Lepomis macrochirus - 28 d - 13.1 µg/l(Acrylaldehyde) Bioconcentration factor (BCF): 344

## 12.4 Mobility in soil

no data available

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Other adverse effects

no data available

## SECTION 13:

### 13.1 Disposal considerations

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. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

DOT (US)

UN number: 1092

Proper shipping name: Acrolein,  
stabilized

Environmental Hazards: yes

Packing group: I

Reportable Quantity(RQ): no data  
available

Class: 6.1 (3)

Poison Inhalation Hazard: no data  
available

IMDG

UN number: 1092

Proper shipping name: Acrolein, stabilized

Packing group: I

EMS-No: no data available

IATA



Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

UN number: 1092

Packing group: I

Class: 6.1 (3)

Proper shipping name: Acrolein, stabilized

---

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

---

## SECTION 16: Other information

Further information

Copyright Aladdin Co. Ltd. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aladdin Co. Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Version: v1

Revision Date: 2024-01-28

Print Date: 2024-02-04