

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

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2024-01-22  
Print Date: 2024-01-30

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

### 1.1 Product identifiers

Product name : Arsenic  
Product Number : A493429  
Brand : aladdin  
CAS-No. : 7440-38-2

### 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)  
Acute toxicity, oral (Class 3), H301  
Acute toxicity, inhalation (Class 3), H331  
Skin corrosion/irritation (Category 2), H315  
Severe eye injury/eye irritation (Category 1), H318  
Carcinogenicity (Class 1A), H350  
Acute (short-term) aquatic hazard (Category 1), H400  
Long term aquatic hazards (Category 1), H410

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H315

Causes skin irritation

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H318	Causes serious eye damage
H350	May cause cancer
H410	Very toxic to aquatic life with long lasting effects
H301+H331	Toxic if swallowed or if inhaled
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing 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.
P391	Collect spillage.
P302+P352	IF ON SKIN: wash with plenty of water.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P332+P313	IF SKIN irritation occurs: Get medical advice/attention.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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+P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: no data available
Formula	: As
Molecular weight	: 74.92
CAS No.	: 7440-38-2
EC-NO.	: 231-148-6

Component	Classification	Concentration
Arsenic		

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Component	Classification	Concentration
	no data available	no data available

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

In case of skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

In case of eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

If swallowed

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

no data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

no data available

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

Unclear nature after product decomposition Non combustible. Surrounding fire sources may cause the release of hazardous vapors

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

no data available

## SECTION 6: Accidental release measures

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

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

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

### 6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Operators should be specially trained and strictly abide by the operating procedures. Operation and disposal should be carried out in a place with local ventilation or general ventilation facilities. Avoid eye and skin contact and avoid breathing vapor. See Section 8 for personal protective measures. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled, and there should be a grounding device to prevent the accumulation of static electricity. Avoid contact with incompatible substances such as oxidizing agents (see section 10 for incompatible substances). When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Empty containers may be harmful residues. Wash hands after use and prohibit eating or drinking in the workplace. Equipped with the corresponding variety and quantity of fire fighting equipment and leakage emer

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

Room temperature storage

### 7.3 Specific end use(s)

no data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

## 8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

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 fullface particle respirator type N100 (US) or type P3 (EN 143) 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

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	817°C
f) Initial boiling point and boiling range	613°C
g) Flash point	no data available
h) Evaporation rate	no data available
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	no data available

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n) Water solubility	no data available
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

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Exothermic reaction in: aluminium bromine Bromate Chlorate Iodate salt nitric acid There may be a risk of fire or the generation of flammable gases or vapors in conjunction with it: Nitrate alkali metal zinc reducing agent Strong oxidant There is an explosion risk associated with it: Potassium permanganate Azide Halogen halogen compounds peroxide Nitrogen trichloride

### 10.4 Conditions to avoid

Heating. Exposure to air may affect product quality

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

LD50 oral mice -145 mg/kg

Note: Behavioral: Exercise disorders

diarrhea

(RTECS)

Classification according to EU CLP Regulation 1272/2008, Annex 6 (Tables 3.1/3.2)

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Acute toxicity estimate inhalation -4 hours -0.51 mg/l - dust/smoke  
(Expert opinion)

Skin corrosion/irritation

Skin in vitro experimental study Result: Irritating to the skin- 15 minutes Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Severe eye damage caused- 24 hours (OECD Testing Guidelines 405)

Respiratory or skin sensitisation

Maximum Response Test - Guinea Pig Result: Negative (OECD Testing Guidelines 406)

Germ cell mutagenicity

测试类型: Ames试验 测试系统: Escherichia coli 结果: 阴性 备注: (ECHA)

Carcinogenicity

May cause cancer. Positive evidence obtained from human epidemiological studies.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Registration of toxic effects of chemical substances: CG0525000

To our knowledge, this chemical, physical, and toxic property has not been fully studied.

The following information applies to arsenic and its compounds: it has capillary and enzymatic toxicity Symptoms of arsenic poisoning: Rapid: Inhalation causes mucosal irritation and coughing, difficulty breathing, and chest discomfort Respiratory perforation may occur After oral administration, gastrointestinal disorders and vomiting, diarrhea, spasms, central nervous system disorders, accompanied by headaches, confusion, tremors, and confusion of consciousness Cardiovascular dysfunction to circulatory system failure Chronic: rash, keratosis, or melanosis Skin diseases, hair loss, conjunctivitis, liver dysfunction, and kidney disease When arsenic accumulates in the liver, kidneys, or skin, it will only be slowly eliminated Experience has shown that arsenic compounds can cause cancer in the human body

Other hazards cannot be ruled out.

This substance requires special caution in handling

## SECTION 12: Ecological information

### 12.1 Toxicity

Static toxicity test for fish LC50- *Oreochromis mossambicus* (Mozambique tilapia) - 28.68 mg/l - 96 h

Remarks: (ECHA)

Toxicity to *Daphnia* and other aquatic invertebrates

Static test EC50- *Bosmina longirostris* -0.85 mg/l -48 hours

Remarks: (ECHA)

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Toxicity static test on algae NOEC - *Macrocystis pyrifera* (brown algae) -0.04 mg/l -42 hours

Remarks: (ECHA)

Static toxicity test for bacteria EC50- Activated sludge -10.6 mg/l -10 days

Remarks: (ECHA)

## 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 Results of PBT and vPvB assessment

no data available

## 12.6 Other adverse effects

no data available

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## SECTION 13:

### 13.1 Disposal considerations

Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur.

Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

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## SECTION 14: Transport information

DOT (US)

UN number: 1558

Proper shipping name: ARSENIC

Environmental Hazards: yes

IMDG

UN number: 1558

Proper shipping name: ARSENIC

IATA

UN number: 1558

Packing group: II

Reportable Quantity(RQ): no data available

Packing group: II

Packing group: II

Class: 6.1

Poison Inhalation Hazard: no data available

EMS-No: no data available

Class: 6.1



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Proper shipping name: ARSENIC

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## SECTION 15: Regulatory information

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

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## SECTION 16: Other information

Further information

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