

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

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2025-09-17  
Print Date: 2025-09-23

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

### 1.1 Product identifiers

Product name : Cadmium selenide quantum dot (CdSe core)  
Product Number : C396224  
Brand : aladdin  
CAS-No. : 1306-24-7(solution)

### 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

Skin corrosion/irritation (Category 2), H315

Reproductive toxicity (Category 2), H361

Specific target organ toxicity - single exposure (Category 3), Narcotic effects, H336

Specific target organ toxicity - repeated exposure (Category 2), H373

Aspiration hazard (Category 1), H304

Short-term (acute) aquatic hazard (Category 2), H401

Long-term (chronic) aquatic hazard (Category 2), H411

Acute toxicity, Oral (Category 3), H301

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

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 4), H312

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



Danger

Signal word

Hazard statement(s)

H225	Highly Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H350	May cause cancer
H361f	Suspected of damaging fertility
H373	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
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.
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P202	Do not handle until all safety precautions have been read and understood.
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.
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.
P331	Do NOT induce vomiting.

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

P391	Collect spillage.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P332+P313	IF SKIN irritation occurs: Get medical advice/attention.
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.

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

Toxic to aquatic life with long lasting effects; Reproductive Harm

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Synonyms	: no data available
Formula	: CdSe
Molecular weight	: 191.37

Component	Classification	Concentration
<b>n-Hexane</b>		
CAS-No.: 110-54-3	Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1;	
EC-No.: 203-777-6	Aquatic Chronic 2; H225, H315, H361f, H336, H373, H304, H411	
	Concentration limits: >= 5 %: STOT RE 2, H373; >= 20 %: STOT SE 3, H336;	
<b>Cadmium selenide</b>		
CAS-No.: 1306-24-7	Acute Tox. 3; Acute Tox. 4; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1;	
EC-No.: 215-148-3	H301, H331, H312, H373, H400, H410 M-Factor - Aquatic Acute: 10 -	
	Aquatic Chronic: 10	

## 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

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

#### In case of skin contact

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

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**In case of eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

**If swallowed**

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

#### **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

---

### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

**Suitable extinguishing media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

**Unsuitable extinguishing media**

no data available

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

no data available

#### **5.3 Advice for firefighters**

wear self-contained breathing and full protective gear.

#### **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**

Ensure adequate ventilation. Use personal protective equipment as required.

#### **6.2 Environmental precautions**

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

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

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed Up containers for disposal.

#### **6.4 Reference to other sections**

For disposal see section 13.

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

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Heat, Air, heat and light sensitive , 2-8 °C, filled with argon, stored away from light.

### 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

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.

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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	form: Liquid color: Clear Red-Orange to Red
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
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
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

## 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

no data available

### 10.4 Conditions to avoid

Incompatible products. Heat, flames and sparks. Exposure to light. Keep away from open flames, hot surfaces and sources of ignition.

### 10.5 Incompatible materials

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

Strong oxidizing agents, Halogens

## 10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

---

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

Liver Heart Blood Central nervous system (CNS) Peripheral Nervous System (PNS)

**Aspiration hazard**

no data available

**Additional Information**

---

## SECTION 12: Ecological information

### 12.1 Toxicity

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

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

## 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

## SECTION 13:

### 13.1 Disposal considerations

#### Product

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

#### DOT (US)

UN number: UN1208

Packing group: II

Class: 3 (6.1)

Proper shipping name: Cadmium  
selenide quantum dot

Reportable Quantity(RQ): no data  
available

Poison Inhalation Hazard: no data  
available

Environmental Hazards: yes

#### IMDG

UN number: UN1208

Packing group: II

EMS-No: no data available

Proper shipping name: Cadmium selenide quantum dot

#### IATA

UN number: UN1208

Packing group: II

Class: 3 (6.1)

Proper shipping name: Cadmium selenide quantum dot

## SECTION 15: Regulatory information

Please note that waste disposal should also meet local regulations. If applicable, the chemical meets the requirements of the Regulations on the Safety Management of Hazardous Chemicals (adopted by the State Council on December 4, 2013).

## SECTION 16: Other information

#### Further information

Copyright Aladdin Co. Ltd. License granted to make unlimited paper copies for internal use only. The above

Phone: 400-620-6333 Email: Sale@aladdin-e.com Web: <https://www.aladdin-e.com>



Shanghai Aladdin Biochemical Technology Co., Ltd.

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

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: 2025-09-17

Print Date: 2025-09-23

□