

Version: v1
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SAFETY DATA SHEET

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

1.1 Product identifiers

Product name : Cadmium telluride
Product Number : C114079
Brand : aladdin
CAS-No. : 1306-25-8

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

Identified uses : It is only for scientific research purposes, not for medicine, family standby medicine or other purposes.

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 (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Carcinogenicity (Category 1A), H350

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

Warning

Hazard statement(s)

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H302	Harmful if swallowed
Precautionary statement(s)	
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.
P330	Rinse mouth.
P391	Collect spillage.
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.
P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to an approved waste disposal plant.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Cadmium monotelluride;
Formula	: CdTe
Molecular weight	: 240.01
CAS No.	: 1306-25-8
EC-NO.	: 215-149-9

Component	Classification	Concentration
Cadmium telluride	Acute toxicity Category 4; Carcinogenicity Category 1A; Short-term (acute) aquatic hazard Category 1; Long-term (chronic) aquatic hazard Category 1; H302, H332, H312, H350, H400, H410 M-Factor - Aquatic Acute: 10	99.999% metals basis

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a doctor. Show this safety technical instruction to the doctor on site.

If inhaled

If inhaled, remove the patient to fresh air. If breathing stops, perform artificial respiration. Consult a doctor.

In case of skin contact

Rinse with soap and plenty of water. Send the patient to the hospital immediately. Consult a doctor.

In case of eye contact

As a precaution, rinse your eyes with water.

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If swallowed

Never feed anything to an unconscious person. Rinse your mouth with water. Consult a doctor.

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

no data available

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Cadmium/cadmium oxides Tellurium oxides Not combustible.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting 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 a respirator. Avoid breathing vapors, aerosols or gases. Ensure adequate ventilation. Evacuate personnel to a safe area. See Part 8 for personal protection.

6.2 Environmental precautions

If safety can be ensured, measures can be taken to prevent further leakage or overflow. Do not allow the product to enter the sewer. Avoid discharge into the surrounding environment.

6.3 Methods and materials for containment and cleaning up

no data available

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

Avoid contact with skin and eyes. Avoid breathing vapors or droplets. Avoid contact with skin, eyes and clothing. Wash hands immediately before rest and after handling this product.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep the container closed and store in a dry and ventilated place. Open containers must be carefully resealed and kept upright to prevent leakage.

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

Eyeface 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

Gloves must be checked before use. Please use proper methods to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU 2016 / 425 and the en 374 standard 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 respirator with multi-purpose combination (US) or type ABEK (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

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

a) Appearance	form: Crystals color: Grey to Dark Grey to Black
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	1041°C
f) Initial boiling point and boiling range	1130°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
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

no data available

10.5 Incompatible materials

强氧化剂, 强酸

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 - Rat - female - > 2,000 mg/kg

(OECD Test Guideline 423)

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

LC50 Inhalation - Rat - male and female - 4 h - 2.71 mg/l - dust/mist

(OECD Test Guideline 403)

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

Dermal: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Skin - reconstructed human epidermis (RhE) Result: No skin irritation - 4 h (OECD Test Guideline 431)

Serious eye damage/eye irritation

Eyes - Rabbit Result: No eye irritation - 1 h (OECD Test Guideline 405)

Respiratory or skin sensitisation

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Chromosome aberration test in vitro Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative

Carcinogenicity

no data available

Reproductive toxicity

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

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

RTECS: EV3330000

Acute inhalation exposure to cadmium fumes may cause "metal fume fever" with flu-like symptoms of weakness, fever, headache, chills, nausea, vomiting, dizziness, sweating, muscular pain, cough and difficulty breathing. Acute pulmonary

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edema may develop within 24 hours and reaches a maximum by three days. The first chronic effect of exposure to cadmium is generally kidney damage, manifested by excretion of excessive protein in the urine, followed by anemia, teeth discoloration and loss of smell. Cadmium also is believed to cause pulmonary emphysema and bone disease.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish

flow-through test LC50 - *Danio rerio* (zebra fish) - > 1,000 mg/l - 96h

(OECD Test Guideline 203)

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

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - *Daphnia magna* (Water flea) - 0.4 mg/l - 48 h

(OECD Test Guideline 202)

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

Toxicity to algae

static test EC50 - *Pseudokirchneriella subcapitata* (algae) - 3.1 mg/l - 72 h

(OECD Test Guideline 201)

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

Toxicity to bacteria

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

(OECD Test Guideline 209)

12.2 Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

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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

no data available

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 3077

Packing group: III

Class: 6.1

Proper shipping name:

Reportable Quantity(RQ): no data available Poison Inhalation Hazard: no data

ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, SOLID, N.O.S. (Cadmium
telluride)

Environmental Hazards: yes

IMDG

UN number: 3077

Packing group: III

EMS-No: no data available

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cadmium telluride)

IATA

UN number: 3077

Packing group: III

Class: 6.1

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cadmium telluride)

SECTION 15: Regulatory information

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Listed

Regulations on Occupational Labor Protection in the at workplaces where Toxic Substances Are Used

Catalogue of Highly Toxic Chemicals : Listed

Other regulations

Please pay attention on the waste treatment should also comply with local regulations

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requirement.

SECTION 16: Other information

Further information

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