

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-11

Print Date: 2025-09-13

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

### 1.1 Product identifiers

Product name : Thermal Analysis-Zinc  
Product Number : Z119583  
Brand : aladdin  
CAS-No. : 7440-66-6(powder)

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

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Spontaneous combustion (category 1), H250

Self-heating substances and mixtures (category 1), H251

Substances and substances that emit smoke when in contact with water (category 1), H260

Acute (short-term) aquatic hazard (category 1), H400

Long-term aquatic hazard (category 1), H410

### 2.2 GHS Label elements, including precautionary statements

Pictogram



## ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

| Signal word                       | Danger                                                                                          |
|-----------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Hazard statement(s)</b>        |                                                                                                 |
| H250                              | Catches fire spontaneously if exposed to air                                                    |
| H251                              | Self-heating; may catch fire                                                                    |
| H260                              | In contact with water releases flammable gases which may ignite spontaneously                   |
| H410                              | Very toxic to aquatic life with long lasting effects                                            |
| <b>Precautionary statement(s)</b> |                                                                                                 |
| P210                              | Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking. |
| P222                              | Do not allow contact with air.                                                                  |
| P223                              | Do not allow contact with water.                                                                |
| P273                              | Avoid release to the environment.                                                               |
| P280                              | Wear protective gloves/protective clothing/eye protection/face protection.                      |
| P231+P232                         | Handle under inert gas/... Protect from moisture.                                               |
| P235+P410                         | Keep cool. Protect from sunlight.                                                               |
| P391                              | Collect spillage.                                                                               |
| P335+P334                         | Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.                |
| P370+P378                         | In case of fire: Use ... to extinguish.                                                         |
| P407                              | Maintain air gap between stacks or pallets.                                                     |
| P420                              | Store separately.                                                                               |
| P422                              | Store contents under ...                                                                        |
| P402+P404                         | Store in a dry place. Store in a closed container.                                              |
| 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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                     |
|------------------|---------------------|
| Synonyms         | : Zinc dust         |
| Formula          | : Zn                |
| Molecular weight | : 65.39             |
| CAS No.          | : 7440-66-6(powder) |
| EC-NO.           | : no data available |

| Component                    | Classification                                                                                                                                               | Concentration                  |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>Thermal Analysis-Zinc</b> |                                                                                                                                                              |                                |
|                              | Pyr. Sol. 1; Self-heat. 1; Water-react 1; Aquatic Acute 1; Aquatic Chronic 1; H250, H251, H260, H400, H410 M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1 | melting temperature : 420.67°C |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this material 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

Flush eyes with water as a precaution.

#### If swallowed

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

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

Dry powder Dry sand

#### Unsuitable extinguishing media

Do NOT use water jet.

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

Zinc/zinc oxides

### 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

Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

### 6.2 Environmental precautions

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

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

Sweep up and shovel. 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). Do not flush with water. Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

### 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Under Inert Atmosphere

### 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

Safety glasses with side-shields conforming to EN166 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 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**

Impervious 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**

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

---

**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                 | 419.6°C           |
| f) Initial boiling point and boiling range      | 907°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                             | 7.13              |
| 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**

Reacts violently with water.

**10.4 Conditions to avoid**

Exposure to moisture.

**10.5 Incompatible materials**

Strong acids and oxidizing agents

**10.6 Hazardous decomposition products**

no data available

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

LD50 Oral-Cannabis-Male and Female-> 2,000 mg/kg

(OECD Test Guideline 401)

LC50 Sex-Elf-Male and Female-4 h-> 5.41 mg/l

(OECD Test Guideline 403)

**Skin corrosion/irritation**

Skin - Rabbit Result: No skin irritation - 5 Days Remarks: (in analogy to similar products) (ECHA) The value is given in analogy to the following substances: Zinc oxide

**Serious eye damage/eye irritation**

Eyes - Rabbit Result: No eye irritation - 24 h (OECD Test Guideline 405)

**Respiratory or skin sensitisation**

Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Zinc oxide

**Germ cell mutagenicity**

In vitro mammalian cell gene mutation test mouse lymphoma cells Result: negative Remarks: (in analogy to similar products) (ECHA) The value is given in analogy to the following substances: zinc chloride Ames test Escherichia coli/Salmonella typhimurium Result: negative Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Zinc sulphate Chromosome aberration test in vitro Result: negative Remarks: (in analogy

---

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

to similar products) (ECHA) The value is given in analogy to the following substances: zinc chloride Mouse - male and female - Red blood cells (erythrocytes) Result: negative Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Zinc sulphate

**Carcinogenicity**

no data available

**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**

Repeated exposure toxicity-Rat-Male and female-Oral-13 weeks-No harmful effect observed-31.52 mg/kg-Observed

The lowest level of harmful effects-53.8 mg/kg

Remarks: (Compared with similar products)

Cold, dry throat, sweetness, fever, cough, nausea, vomiting, weakness

As far as we know, the chemical, physical and toxic properties have not been fully studied.

---

**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish LC50-Cyprinus carpio (carp)-0.45 mg/l-96 h

Remarks: (ECOTOX database)

Toxicity to water flea and other aquatic invertebrates

Static test EC50-Ceriodaphnia dubia (Ceriodaphnia dubia)-0.155 mg/l-48 h

(US-EPA)

Toxicity to algae static test NOEC-Pseudokirchneriella subcapitata-0.05 mg/l-3 days

(OECD Test Guideline 201)

Toxicity to bacteria static test NOEC-activated sludge-0.1 mg/l-4 h

(ISO 9509)

**12.2 Persistence and degradability**

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

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

### 12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

---

## SECTION 13:

### 13.1 Disposal considerations

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as

#### Contaminated packaging

Dispose of as unused product.

---

## SECTION 14: Transport information

#### DOT (US)

UN number: 1436

Packing group: II

Class: 4.3

Proper shipping name: ZINC POWDER

Reportable Quantity(RQ): no data available

Poison Inhalation Hazard: no data available

Environmental Hazards: No

#### IMDG

UN number: 1436

Packing group: II

EMS-No: no data available

Proper shipping name: ZINC POWDER

#### IATA

UN number: 1436

Packing group: II

Class: 4.3

Proper shipping name: ZINC POWDER

---

## SECTION 15: Regulatory information

Please note that waste disposal should also meet the requirements of local regulations.

If applicable, the chemical meets the requirements of the "Regulations on the Safety Management of Hazardous

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Chemicals" (adopted by the State Council on December 4, 2013).

## SECTION 16: Other information

**Prepared By**

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

Email: QualityAssurance@aladdinsci.com

**Creation Date**

09-Sep-2021

**Revision Date**

11-Sep-2025

**Print Date**

13-Sep-2025

**Revision Summary**

SDS sections updated v1

**Disclaimer**

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.