

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

SAFETY DATA SHEET

Version: v1

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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



Signal word

Danger

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Hazard statement(s)	
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
Precautionary statement(s)	
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
Thermal Analysis-Zinc	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.

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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

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

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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

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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 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)

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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

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

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

SECTION 16: Other information

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