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

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	: Zinc chloride
Product Number	: Z141099
Brand	: aladdin
CAS-No.	: 7646-85-7

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 liquid (class 2), H225

Acute toxicity, oral (category 4), H302

Skin corrosion/irritation (category 1B), H314

Serious eye injury/eye irritation (category 1), H318

Carcinogenicity (Category 2), H351

Specific target organ system toxicity (first exposure) (category 3), respiratory tract irritation, anesthetic effect, H335, H336

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

Long-term aquatic hazards (category 2), H411

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H225	Highly Flammable liquid and vapor
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
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.
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.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P308+P313	IF exposed or concerned: 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.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Synonyms	: Butter of zinc;Dichlorozinc
Formula	: Cl2Zn
Molecular weight	: 136.30

Component	Classification	Concentration
Tetrahydrofuran		
CAS-No.: 109-99-9 EC-No.: 203-726-8	Flam. Liq. 2; Acute Tox. 4; Eye Irrit. 2; Carc. 2; STOT SE 3; H225, H302, H319, H351, H336, H335 Concentration limits: >= 25 %: Eye Irrit. 2, H319; >= 25 %: STOT SE 3, H335;	
Zinc chloride		
CAS-No.: 7646-85-7 EC-No.: 231-592-0	Acute toxicity category 4; Skin corrosion/irritation category 1B; Serious eye injury/eye irritation category 1; Specific target system toxicity (first exposure) category 3; Acute (short-term) aquatic hazard category 1; Long-term aquatic hazard category 1 h302, h314, h318, h335, h400, h410m-factor-Aquatic Acute: 10 M- factor-Aquatic Chronic: 1	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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

Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides Hydrogen chloride gas Zinc/zinc oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Test for peroxide formation periodically and before distillation.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Component	CAS No	value	controls parameter	according to
Tetrahydrofuran	109-99-9	PC-TWA	300 mg/m3	Harmful factors in workplace occupational exposure limits-chemical harmful factors
zinc chloride	7646-85-7	PC-TWA	1 mg/m3	Harmful factors in workplace occupational exposure limits-chemical harmful factors
		PC-STEL	2 mg/m3	Harmful factors in workplace occupational exposure limits-chemical harmful factors

Biological limit

Component	CAS No	parameter	value	biological sample	according to
Tetrahydrofuran	109-99-9	Tetrahydrofuran	2 mg/l	Urine	ACGIH-biological limit (BEI)
	Remarks	Sampling immediately after contact or after working hours			

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	283°C
f) Initial boiling point and boiling range	732°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

It is stable under the recommended storage conditions

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Warming. Moisture.

10.5 Incompatible materials

Oxidizing agents, Strong oxidizing agents, Oxygen

10.6 Hazardous decomposition products

Peroxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Tetrahydrofuran

LD50 oral-rat-male and female-1,650 mg/kg

Remarks: (ECHA)

Symptoms: irritation of mucous membranes

LC50 inhalation-rat-male and female-4 h-> 16.9 mg/L.

(US-EPA)

Symptoms: mucosal irritation, cough, shortness of breath, possible damage: damage to respiratory tract

The LD50 was percutaneous-rat-male and female-> 2,000 mg/kg

(OECD test guideline 402)

zinc chloride

LD50 oral-rat-male-1,100 mg/kg

(OECD test guideline 401)

LC50 inhalation-rat-female-10min-<= 1,975 mg/m3

Remarks: (ECHA)

The LD50 was percutaneous-rat-male and female-> 2,000 mg/kg

(OECD test guideline 402)

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

Mixtures can cause respiratory irritation. The mixture may cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

As far as we know, the chemical, physical and toxic properties have not been completely studied. , which has great damage to mucous membrane, upper respiratory tract, eyes and skin. Spasm, inflammation, sore throat, spasm, inflammation, bronchitis, pneumonia, pulmonary edema, burning sadness: cough, wheezing, laryngitis, shortness of breath, headache can not rule out other dangers. This substance must be handled with special care. Operate in accordance with good industrial hygiene and safety regulations.

SECTION 12: Ecological information

12.1 Toxicity

no data available

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

SECTION 13:

13.1 Disposal considerations

Product

ecycle 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.

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

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 2924	Packing group: II	Class: 3 (8)
Proper shipping name: Flammable liquid, corrosive, n.o.s. (Tetrahydrofuran, zinc chloride)	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: no		

IMDG

UN number: 2924	Packing group: II	EMS-No: no data available
Proper shipping name: Flammable liquid, corrosive, n.o.s. (Tetrahydrofuran, zinc chloride)		

IATA

UN number: 2924	Packing group: II	Class: 3 (8)
Proper shipping name: Flammable liquid, corrosive, n.o.s. (Tetrahydrofuran, zinc chloride)		

SECTION 15: Regulatory information

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

SECTION 16: Other information

Further information

 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.

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