



Preparing for the New Era of Laboratories

# MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

## **ZINC DUST 98% AR**

PRODUCT CODE : O-5230

CAS No : 7440-66-6

FORMULA : Zn

UN No : 3077

# MATERIAL SAFETY DATA SHEET (SDS/MSDS)

## ZINC DUST 98% AR



MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

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

- 1.1 Product Name** : ZINC DUST 98% AR  
**Synonyms** : Zinc  
**CAS No.** : 7440-66-6  
**HS Code** : 7903 1000  
**Chemical Formula** : Zn  
**Molecular Weight** : 65,39 g/mol  
**Product Code** : O-5230  
**Brand** : Labotiq  
**1.2 Manufacturer** : Labotiq  
**Address** : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111  
**Website** : [www.labotiq.net](http://www.labotiq.net)  
**Email** : [labotiq.id@gmail.com](mailto:labotiq.id@gmail.com)  
**For information** : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710  
**Emergency number** : +6281316894650  
**1.3 Application** : Laboratory chemicals, Manufacture of substances

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

Short-term (acute) aquatic hazard, (Category 1) H400: Very toxic to aquatic life. Long-term  
 (chronic) aquatic hazard, (Category 1) H410: Very toxic to aquatic life with long lasting effects.

For the full text of the H-Statements mentioned in this Section, see Section 16

#### 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

warning

Hazard statement(s)

H410

Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P273

Avoid release to the environment.

P391

Collect spillage.

P501

Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard Statements

none

# MATERIAL SAFETY DATA SHEET (SDS/MSDS)

## ZINC DUST 98% AR



MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

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### Reduced labelling (≤125 ml)

Hazard pictograms



Signal word

Warning

Hazard statements

none

Precautionary statements

none

### 2.3 Other hazards

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.

#### Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. May form explosible dust-air mixture if dispersed.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : Zinc  
Formula : Zn  
Molecular weight : 65,39 g/mol  
CAS-No. : 7440-66-6

### 3.2 Mixture

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
zinc powder, zinc dust stabilized CAS-No. 7440-66-6 EC-231-175-3 No. Index-No. 030-001-01-9	Aquatic Acute 1; Aquatic Chronic 1; H400, H410 M-Factor - Aquatic Acute: 1 M-Factor - Aquatic Chronic: 1	≤100 %

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

# **MATERIAL SAFETY DATA SHEET (SDS/MSDS)**

## **ZINC DUST 98% AR**



MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

### **If inhaled**

After inhalation: fresh air.

### **In case of skin contact**

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

### **In case of eye contact**

After eye contact: rinse out with plenty of water. Remove contact lenses.

### **If swallowed**

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

## **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 Foam Carbon dioxide (CO<sub>2</sub>) 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**

Zinc/zinc oxides Combustible.

Risk of dust explosion.

Development of hazardous combustion gases or vapours possible in the event of fire.

### **5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus

### **5.4 Further information**

Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. 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.

### **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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

# **MATERIAL SAFETY DATA SHEET (SDS/MSDS)**

## **ZINC DUST 98% AR**



MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

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

For disposal see section 13.

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **Advice on safe handling**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### **Hygiene measures**

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

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

#### **Storage conditions**

Tightly closed. Dry. Handle and store under inert gas. Air and moisture sensitive.

#### **Storage class**

Storage class (TRGS 510): 11: Combustible Solids

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Ingredients with workplace control parameters**

### **8.2 Exposure control**

#### **Appropriate engineering controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

#### **Personal protective equipment**

##### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

##### **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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### **Full contact**

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

# MATERIAL SAFETY DATA SHEET (SDS/MSDS)

## ZINC DUST 98% AR



MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

Material tested: Dermatril® (KCL 740, Size M)

**Splash contact**

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740, Size M)

**Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Control of environmental exposure**

Do not let product enter drains.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Appearance	Form: Dust
Odour	Colour: dark gray
Odour Threshold	odorless
pH	No data available
Melting point/freezing point	Not applicable
Initial boiling point and boiling range	Melting point/ range: 420 °C - lit.
Flash point	907 °C - lit.
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	May form combustible dust concentrations in air.
Vapour pressure	No data available
Vapour density	No data available
Density	1,33 hPa at 487 °C
Relative density	7,133 g/cm <sup>3</sup> at 25 °C - lit
Water solubility	6,9 at 22 °C
Partition coefficient: octanol/water	0,0001 g/l at 20 °C - OECD Test Guideline 105- slightly soluble
Auto-ignition temperature	Not applicable for inorganic substances
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	none

# **MATERIAL SAFETY DATA SHEET (SDS/MSDS)**

## **ZINC DUST 98% AR**



MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

### **9.2 Other safety information**

No data available

## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### **10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) . Contains the following stabilizer(s): Zinc oxide ( $\leq 33\%$ )

### **10.3 Possibility of hazardous reactions**

No data available

### **10.4 Conditions to avoid**

No data available

### **10.5 Incompatible materials**

No data available

### **10.6 Hazardous decomposition products**

in the event of fire: See section 5.

## **SECTION 11: Toxicological information**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

LD50 Oral - Rat - male and female -  $> 2.000$  mg/kg (zinc powder, zinc dust stabilized)  
(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h -  $> 5,41$  mg/l - dust/mist (zinc powder, zinc dust stabilized)  
(OECD Test Guideline 403) Dermal: No data available

#### **Skin corrosion/irritation**

Skin - Rabbit (zinc powder, zinc dust stabilized)  
Result: No skin irritation - 5 d  
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 (zinc powder, zinc dust stabilized)  
Result: No eye irritation - 24 h (OECD Test Guideline 405)

#### **Respiratory or skin sensitisation**

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

# MATERIAL SAFETY DATA SHEET (SDS/MSDS)

## ZINC DUST 98% AR



MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

### Germ cell mutagenicity

Test Type: Ames test (zinc powder, zinc dust stabilized)

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Zinc sulphate

Test Type: In vitro mammalian cell gene mutation test (zinc powder, zinc dust stabilized)

Test system: mouse lymphoma cells

Metabolic activation: without metabolic activation

Result: negative

Remarks: (in analogy to similar products) (ECHA)

The value is given in analogy to the following substances: zinc chloride

Test Type: Chromosome aberration test in vitro (zinc powder, zinc dust stabilized)

Test system: Other cell types

Metabolic activation: with and without metabolic activation

Result: negative

Remarks: (in analogy to similar products) (ECHA)

The value is given in analogy to the following substances: zinc chloride

(zinc powder, zinc dust stabilized)

Test Type: Micronucleus test

Species: Mouse

Cell type: Red blood cells (erythrocytes)

Application Route: Intraperitoneal Result: negative

Remarks: (in analogy to similar products) (ECHA)

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

This information is not available

### Aspiration hazard

No data available

### Additional Information

Endocrine disrupting properties

Product:

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 31,52 mg/kg - LOAEL (Lowest observed adverse effect level) - 53,8 mg/kg (zinc powder, zinc dust stabilized) RTECS: ZG8600000 Effects due to ingestion may include:, chills, dry



**MATERIAL SAFETY DATA SHEET (SDS/MSDS)**  
**ZINC DUST 98% AR**

MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

throat, sweet taste, Fever, Cough, Nausea, Vomiting, Weakness, Contact with eyes or skin may cause; Irritation (zinc powder, zinc dust stabilized) To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (zinc powder, zinc dust stabilized).

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

Toxicity to fish

flow-through test LC50 - other fish - 0,439 mg/l - 96 h (zinc powder, zinc dust stabilized)

Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Ceriodaphnia dubia (water flea) - 0,155 mg/l - 48 h

(zinc powder, zinc dust stabilized) (US-EPA)

Toxicity to algae

static test NOEC - Pseudokirchneriella subcapitata (green algae) - 0,05 mg/l - 3 d

(zinc powder, zinc dust stabilized) (OECD Test Guideline 201)

Toxicity to bacteria

static test NOEC - activated sludge - 0,1 mg/l - 4 h (zinc powder, zinc dust stabilized) (ISO 9509)

Remarks: (in analogy to similar products)

Toxicity to fish(Chronic toxicity)

flow-through test NOEC - other fish - 0,169 mg/l - 30 d (zinc powder, zinc dust stabilized)

Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)

semi-static test NOEC - Daphnia magna (Water flea) - 0,100 mg/l - 3 Weeks

(zinc powder, zinc dust stabilized)

Remarks: (ECHA)

**12.2 Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances

**12.3 Bioaccumulative potential**

Substance is not persistent, bioaccumulative, and toxic (PBT).

**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.

**12.6 Other adverse effects**

No data available

**Endocrine disrupting properties****Product:**

Assessment :

# MATERIAL SAFETY DATA SHEET (SDS/MSDS)

## ZINC DUST 98% AR



MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

No data available

### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID: 3077

IMDG: 3077

IATA: 3077

#### 14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(zinc powder, zinc dust stabilized, Zinc oxide)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(zinc powder, zinc dust stabilized, Zinc oxide)

IATA: Environmentally hazardous substance, solid, n.o.s.  
(zinc powder, zinc dust stabilized, Zinc oxide)

#### 14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

#### 14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

#### 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: yes

#### 14.6 Special precautions for user

##### Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

#### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

### SECTION 16: Other information

#### Full text of H-Statements referred to under sections 2 and 3.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

#### National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 1

# **MATERIAL SAFETY DATA SHEET (SDS/MSDS)**

## **ZINC DUST 98% AR**



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MSDS Number : 0419

Date : June 10<sup>th</sup>, 2025

Version : 1.0

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### ***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. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.*

Version : 1.0

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