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**Material Safety Data Sheet**

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<b>Product Name</b>	<b>Zinc (Metal) dust</b>
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**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identification:**

**Product Description:** Zinc (Metal) dust

**Synonyms:** Zinc Dust

**CAS-No:** 7440-66-6

**EC-No.:** 231-175-3

**Molecular Formula:** Zn

**REACH Registration No:** A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

**Recommended Use:** Laboratory chemicals

**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**  
184-186/P, Chacharwadi Vasna,  
Sarkhej-Bavla Highway,  
Ta.: Sanand, Dist.: Ahmedabad,  
Email: [info@finarchemicals.com](mailto:info@finarchemicals.com)  
Web: [www.finarchemicals.com](http://www.finarchemicals.com)
- **E-Mail Address** [safety@finarchemicals.com](mailto:safety@finarchemicals.com); [info@finarchemicals.com](mailto:info@finarchemicals.com)

**1.4. Emergency Telephone Number:**

- For Emergency contact on: +91 - 2717 - 616 717
- Registered office No: +91 - 79 – 40040085

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**Material Safety Data Sheet**

---

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture:****Classification according to Regulation (EC) No 1272/2008**

H250: Catches fire spontaneously if exposed to air

H260: In contact with water releases flammable gases which may ignite spontaneously

H400: Very toxic to aquatic life

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 to Regulation (EC) No 1272/2008****Pictogram**

Signal Word:           Warning

**Hazard Statement:**

H400: Very toxic to aquatic life

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

**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.

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**Material Safety Data Sheet**

---

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

3.1. **Substances:** Zinc (Metal) dust

3.2. **Mixtures:**

<b>Component</b>	<b>CAS-No</b>	<b>EC-No.</b>	<b>Weight %</b>
Zinc (Metal) dust	7440-66-6	231-175-3	Min 99%

**SECTION 4: FIRST AID MEASURES**

4.1. **Description of first aid measures:**

- **If Ingestion**

Do not induce vomiting. Obtain medical attention.

- **If Inhaled**

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

- **If Contact with skin**

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

- **In case of eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Get medical attention.

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.

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**Material Safety Data Sheet**

---

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media:**

**Suitable Extinguishing Media-** Use Dry sand, clay, approved class D extinguishers.

**Unsuitable Extinguishing Media-** DO NOT USE WATER, Carbon dioxide (CO<sub>2</sub>), Dry chemical, Foam

**5.2. Special hazards arising from the substance or mixture:**

Flammable.

Fine dust dispersed in air may ignite.

Pyrophoric: Spontaneously flammable in air. Water reactive.

Contact with water liberates extremely flammable gases.

Thermal decomposition can lead to release of irritating gases and vapours.

Keep product and empty container away from heat and sources of ignition.

**5.3. Advice for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**5.4 Further Information:**

No data available.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment. Remove all sources of ignition. Avoid dust formation.

Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing.

**6.2. Environmental precautions:**

Should not be released into the environment. See Section 12 for additional ecological information.

**6.3. Methods and material for containment and cleaning up:**

Remove all sources of ignition. Do not expose spill to water. Sweep up or vacuum up spillage and collect in suitable container for disposal. Use spark-proof tools and explosion-proof equipment.

Avoid dust formation.

**6.4. Reference to other sections:**

For disposal see Sections 13.

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**Material Safety Data Sheet**

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<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

**SECTION 7: HANDLING AND STORAGE****7.1. Precautions for safe handling:**

Use only under a chemical fume hood. Wear personal protective equipment. Avoid dust formation.

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

Handle under an inert atmosphere. Do not allow contact with air. Do not allow contact with water.

Keep away from open flames, hot surfaces and sources of ignition.

Use spark-proof tools and explosion-proof equipment.

Take precautionary measures against static discharges.

**7.2. Conditions for safe storage, including any incompatibilities:**

Keep containers tightly closed in a dry and well-ventilated place. Store under an inert atmosphere.

Keep away from heat and sources of ignition. Keep away from water.

**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 Controls:**

- **Personal Protective Equipment:**

**Eye & Face Protection**

Safety goggles

**Hand 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.

Full contact: -

Glove material: Nitrile Rubber

Glove Thickness: 0.11 mm

Break Through Time: 480 min

## Material Safety Data Sheet

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact: -

Glove material: Nitrile Rubber

Glove Thickness: 0.11 mm

Break Through Time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Environmental Exposure Controls

Do not let product enter drains.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

- **Appearance:** Dark grey
- **Physical State:** Solid
- **Odor:** Odourless
- **pH:** No data available
- **Melting Point:** 419°C
- **Autoignition Temperature:** 460 °C
- **Decomposition Temperature:** No data available
- **Vapor Pressure:** 1 mmHg at 487 °C
- **Relative Density:** 6.9 at 22 °C
- **Density:** No data available
- **Volatility:** No data available
- **Bulk Density:** 1.800 - 2.700 kg/m<sup>3</sup>
- **Odor Threshold:** No data available
- **Viscosity, dynamic:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Partition coefficient: n-octanol/water:** No data available

## Material Safety Data Sheet

Product Name	Zinc (Metal) dust
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- **Ionicity (in Water):** No data available
- **Boiling Point/Range:** 980 °C
- **Flash Point:** No data available
- **Specific Gravity:** 7.14
- **Water Solubility:** No data available

### 9.2. Other information:

**Molecular Formula:** Zn

**Molecular Weight:** 65.38 g/mol

## 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:

Water reactive. Moisture sensitive. Air sensitive. Pyrophoric: Spontaneously flammable in air.

### 10.3. Possibility of hazardous reactions:

Contact with water liberates extremely flammable gases. Pyrophoric: Spontaneously flammable in air.

### 10.4. Conditions to avoid:

Avoid dust formation. Incompatible products. Exposure to air. Exposure to moist air or water.

Keep away from open flames, hot surfaces and sources of ignition.

### 10.5. Incompatible materials:

Strong oxidizing agents, Strong acids, Strong bases, Amines.

### 10.6. Hazardous decomposition products:

Hydrogen

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute Oral toxicity**

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**Material Safety Data Sheet**

---

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

LD50 Oral - Rat - male and female - > 2.000 mg/kg

(OECD Test Guideline 401)

**Acute Inhalation Toxicity**

LC50 Inhalation - Rat - male and female - 4 h - > 5,41 mg/l

(OECD Test Guideline 403)

**Acute Dermal toxicity**

No data available

**Skin corrosion/irritation**

Skin - Rabbit

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

Result: No eye irritation - 24 h

(OECD Test Guideline 405)

**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**

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



**Material Safety Data Sheet**

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

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

Chromosome aberration test in vitro

Other cell types

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)

(ECHA)

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

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**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

**11.2 Further Information:**

## Material Safety Data Sheet

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

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

Not available

Effects due to ingestion may include:, chills, dry throat, sweet taste, Fever, Cough, Nausea, Vomiting, Weakness, Contact with eyes or skin may cause:, Irritation

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 - other fish - 0,439 mg/l - 96 h

Remarks: (ECHA)

##### **Toxicity to daphnia and other aquatic invertebrates**

Static test EC50 - Daphnia magna (Water flea) - 1,833 mg/l - 48 h

(OECD Test Guideline 202)

##### **Toxicity to algae**

Static test NOEC - Pseudokirchneriella subcapitata - 0,005 mg/l - 3 d

(OECD Test Guideline 201)

##### **Toxicity to bacteria**

Static test NOEC - activated sludge - 0,1 mg/l - 4 h (ISO 9509)

Remarks: (in analogy to similar products)

#### **12.2 Persistence and degradability:**

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

#### **12.3 Bioaccumulate potential:**

This substance is not considered to be persistent, bioaccumulating 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.

**Material Safety Data Sheet**

<b>Product Name</b>	Zinc (Metal) dust
---------------------	-------------------

**12.6 Other adverse effects:**

No data available

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods:**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**SECTION 14: Transport information**

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
<b>14.1 UN number</b>	UN 3077		
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc powder (pyrophoric))		
<b>14.3 Hazard Class</b>	9		
<b>14.4 Packing group</b>	III		
<b>14.5 Environmentally hazardous</b>	Yes		
<b>14.6 Special precautions for user</b>	-		
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:</b>	Not relevant		

**SECTION 15: Regulatory information**

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

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

REACH - Restrictions on the manufacture, : Not applicable

placing on the market and use of certain

dangerous substances, preparations and articles

**Material Safety Data Sheet**

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

(Annex XVII)

**National legislation**

Seveso III: Directive 2012/18/EU of the : ENVIRONMENTAL HAZARDS  
 European Parliament and of the Council on the  
 control of major-accident hazards involving  
 dangerous substances.

**Other regulations**

Take note of Dir 94/33/EC on the protection of young people at work.

**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.**

Hazard Statement:

H400: Very toxic to aquatic life

H410: Very toxic to aquatic life with long lasting effects

**Training advice**

Provide adequate information, instruction and training for operators.

**References:** Not available

**Created:** 31/03/2021

**Disclaimer:**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Finar Limited be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if

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**Material Safety Data Sheet**

---

<b>Product Name</b>	<b>Zinc (Metal) dust</b>
---------------------	--------------------------

Finar Limited has been advised of the possibility of such damages.