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

### 1.1 Product identifier

**Trade name**

## Zinc dust

| | |
|---|---|
| Substance name | zinc powder - zinc dust (stabilized) |
| REACH registration no. | 01-2119467174-37-0030 |

**Identification numbers**

| | |
|---|---|
| CAS no. | 7440-66-6 |
| EC no. | 231-175-3 |
| Index no. | 030-001-01-9 |

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

**Relevant identified uses of the substance or mixture**
anti corrosive foundation
reducing agent in chemical reactions

**Uses advised against**
None known

### 1.3 Details of the supplier of the safety data sheet

**Address**
Conmet GmbH
Jülicher Straße 336
D-52070 Aachen

| | |
|---|---|
| Telephone no. | +49 241 1 68 24 52 |
| Fax no. | +49 241 1 68 24 53 |

**Information provided by / telephone**
+49 241 1 68 24 52, Dr. Gorny

**Advice on Safety Data Sheet**
sdb_info@umco.de

### 1.4 Emergency telephone number

+49 241 1 68 24 52

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

**Classification information**
This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3 and 4 of Annex I to CLP.

### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)**

**Product identifier**
7440-66-6 (zinc powder - zinc dust (stabilized))

**Hazard pictograms**

GHS09

**Signal word**
Warning

**Hazard statements**

| | |
|---|---|
| H410 | Very toxic to aquatic life with long lasting effects. |

**Precautionary statements**

| | |
|---|---|
| P273 | Avoid release to the environment. |
| P391 | Collect spillage. |
| P501 | Dispose of contents/container in accordance with local and national regulations. |

### 2.3 Other hazards
No data available.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

**Chemical characterization**

| | |
|---|---|
| Substance name | zinc powder - zinc dust (stabilized) |
| Formula | Zn |
| Molecular weight | 65.37 |

**Identification numbers**

| | |
|---|---|
| CAS no. | 7440-66-6 |
| EC no. | 231-175-3 |
| Index no. | 030-001-01-9 |

### 3.2 Mixtures
Not applicable. The product is not a mixture.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information**
In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

**After inhalation**
Ensure supply of fresh air. Take medical treatment.

**After skin contact**
When in contact with the skin, clean with soap and water.

**After eye contact**
Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

**After ingestion**
Induce vomiting if patient is conscious, seek medical advice. Rinse out mouth and give plenty of water to drink. Administer activated charcoal.

### 4.2 Most important symptoms and effects, both acute and delayed

**Symptoms**
Fever; Nausea; Vomiting

### 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**
Metal fire powders; Carbon dioxide; Sand

**Unsuitable extinguishing media**
Water; Foam

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

In the event of fire, the following can be released: Zinc oxides

### 5.3 Advice for firefighters

Run-off water from fire fighting must not be discharged into drains or enter surface water. In case of combustion use a suitable breathing apparatus.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel**
Refer to protective measures listed in sections 7 and 8. Avoid dust formation. Keep away sources of ignition.

**For emergency responders**
No data available. Personal protective equipment (PPE) - see Section 8.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

### 6.3 Methods and material for containment and cleaning up

Take up mechanically. Avoid raising dust. Send in suitable containers for recovery or disposal.

### 6.4 Reference to other sections

No data available.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Advice on safe handling**
Avoid the formation and deposition of dust. If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn.

**General protective and hygiene measures**
Do not eat, drink or smoke during work time. After worktime and during work intervals the affected skin areas must be thoroughly cleaned. Store work clothing separately. Do not inhale dust.

**Advice on protection against fire and explosion**
Keep away from sources of heat and ignition. Take precautionary measures against static charges.

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

**Technical measures and storage conditions**
Keep container tightly closed and dry in a cool, well-ventilated place.

**Requirements for storage rooms and vessels**
Keep in original packaging, tightly closed.

**Advice on storage assembly**
Do not store together with: Acids; Bases; Keep away from water. Do not store with combustible materials. Do not store together with foodstuffs.

### 7.3 Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limit values**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 1 | **zinc oxide** | **1314-13-2** | **215-222-5** |
| | **List of approved workplace exposure limits (WELs) / EH40** | | |
| | Zinc oxide, fume | | |
| | STEL | 10 mg/m³ | |
| | TWA | 5 mg/m³ | |
| 2 | **DUST** | | |
| | **List of approved workplace exposure limits (WELs) / EH40** | | |
| | total inhalable dust | | |
| | TWA | 10 mg/m³ | |
| | **List of approved workplace exposure limits (WELs) / EH40** | | |
| | respirable dust | | |
| | TWA | 4 mg/m³ | |

**DNEL and PNEC values**

**DNEL values (worker)**

| No | Substance name | | | CAS / EC no | |
|---|---|---|---|---|---|
| | **Route of exposure** | **Exposure time** | **Effect** | **Value** | |
| 1 | **zinc powder - zinc dust (stabilized)** | | | **7440-66-6<br>231-175-3** | |
| | dermal | Long term (chronic) | systemic | 83.3 | mg/kg/day |
| | with reference to: Zn<br>Remarks: insoluble | | | | |
| | inhalative | Long term (chronic) | systemic | 5 | mg/m³ |
| | with reference to: Zn<br>Remarks: insoluble | | | | |

**DNEL value (consumer)**

| No | Substance name | | | CAS / EC no | |
|---|---|---|---|---|---|
| | **Route of exposure** | **Exposure time** | **Effect** | **Value** | |
| 1 | **zinc powder - zinc dust (stabilized)** | | | **7440-66-6<br>231-175-3** | |
| | oral | Long term (chronic) | systemic | 0.83 | mg/kg/day |
| | Remarks: insoluble | | | | |
| | dermal | Long term (chronic) | systemic | 83 | mg/kg/day |
| | Remarks: insoluble | | | | |
| | inhalative | Long term (chronic) | systemic | 2.5 | mg/m³ |
| | with reference to: Zn<br>Remarks: insoluble | | | | |

**PNEC values**

| No | Substance name | | CAS / EC no | |
|---|---|---|---|---|
| | **ecological compartment** | **Type** | **Value** | |
| 1 | **zinc powder - zinc dust (stabilized)** | | **7440-66-6<br>231-175-3** | |
| | water | fresh water | 20.6 | µg/l |
| | water | marine water | 6.1 | µg/l |
| | water | fresh water sediment | 117.8 | mg/kg |
| | with reference to: dry weight | | | |
| | water | marine water sediment | 56.5 | mg/kg |
| | with reference to: dry weight | | | |
| | soil | - | 35.6 | mg/kg |
| | with reference to: dry weight | | | |
| | sewage treatment plant | - | 100 | µg/l |

**Other information**
DNELinhal soluble Zn(worker): 1 mg Zn/m³
DNELinhal insoluble Zn(worker): 5 mg Zn/m³

### 8.2 Exposure controls

**Appropriate engineering controls**
No data available.

**Personal protective equipment**

**Respiratory protection**
If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn.
Respiratory filter (part): P2

**Eye / face protection**
Safety glasses (EN 166)

**Hand protection**
In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product . Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

**Other**
Normal chemical work clothing.

**Environmental exposure controls**
No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| **Form/Colour** |
|---|
| solid |
| grey |

| **Odour** |
|---|
| odourless |

| **Odour threshold** |
|---|
| No data available |

| **pH value** |
|---|
| Not applicable |

| **Boiling point / boiling range** | | | |
|---|---|---|---|
| Value | | 906 | °C |

| **Melting point / melting range** | | | |
|---|---|---|---|
| Value | > | 409 | °C |
| Reference substance | powder | | |

| **Decomposition point / decomposition range** |
|---|
| No data available |

| **Flash point** |
|---|
| Not applicable |

| **Ignition temperature** |
|---|
| not determined |

| Auto-ignition temperature |
|---|
| No data available |

| Oxidising properties |
|---|
| No data available |

| Explosive properties |
|---|
| No data available |

| Flammability (solid, gas) |
|---|
| No data available |

| Lower flammability or explosive limits |
|---|
| No data available |

| Upper flammability or explosive limits |
|---|
| No data available |

| Vapour pressure |
|---|
| Not applicable |

| Vapour density |
|---|
| No data available |

| Evaporation rate |
|---|
| No data available |

| Relative density |
|---|
| No data available |

| Density | | | | |
|---|---|---|---|---|
| Value | 6.9 | - | 7.1 | g/cm³ |
| Reference temperature | | | 20 | °C |

| Solubility in water | | | | |
|---|---|---|---|---|
| Value | | | 0.1 | mg/l |

| Solubility(ies) |
|---|
| No data available |

| Partition coefficient: n-octanol/water |
|---|
| No data available |

| Viscosity |
|---|
| No data available |

### 9.2 Other information

| Other information |
|---|
| No data available. |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity
No data available.

### 10.2 Chemical stability
Stable under recommended storage and handling conditions (See section 7).

### 10.3 Possibility of hazardous reactions
Dangerous reactions are not to be expected when handling product according to its intended use.

### 10.4 Conditions to avoid
No data available.

### 10.5 Incompatible materials
Acids; Bases; Reacts strongly with water.

### 10.6 Hazardous decomposition products

ZnO-fume can be generated during thermal processing.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

| Acute oral toxicity | | | | |
|---|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | | **231-175-3** |
| LD50 | > | 2000 | | mg/kg bodyweight |
| Species | rat | | | |
| Method | OECD 401 | | | |
| Source | CSR | | | |

| Acute dermal toxicity |
|---|
| No data available |

| Acute inhalational toxicity | | | | |
|---|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | | **231-175-3** |
| LC50 | | 5.41 | | mg/l |
| Duration of exposure | | 4 | | h |
| State of aggregation | Dust | | | |
| Species | rat | | | |
| Method | OECD 403 | | | |
| Source | CSR | | | |

| Skin corrosion/irritation | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | **231-175-3** |
| Source | CSR | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| Serious eye damage/irritation | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | **231-175-3** |
| Source | CSR | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| Respiratory or skin sensitisation | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | **231-175-3** |
| Route of exposure | respiratory tract | | |
| Source | CSR | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| Route of exposure | Skin | | |
| Source | CSR | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| Germ cell mutagenicity |
|---|
| No data available |

| Reproduction toxicity |
|---|
| No data available |

| Carcinogenicity |
|---|
| No data available |

| STOT-single exposure |
|---|
| No data available |

| STOT-repeated exposure |
|---|
| No data available |

| Aspiration hazard |
|---|
| No data available |

| Delayed and immediate effects as well as chronic effects from short and long-term exposure |
|---|
| Inhalation of dusts may irritate the respiratory tract. Zinc is present in drugs (medication) in small amounts up to 25 mg. Amounts in grams can cause serious damage to health. Inhalation of zinc oxide fumes can cause fever, muscle pains, shivering and nausea. In general these troubles last only 24 hours without any after-effect (zinc fever). |

## SECTION 12: Ecological information

### 12.1 Toxicity

| Toxicity to fish (acute) |
|---|
| No data available |

| Toxicity to fish (chronic) |
|---|
| No data available |

| Toxicity to Daphnia (acute) | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | **231-175-3** |

| | | | |
|---|---|---|---|
| EC50 | | 0.9 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Ceriodaphnia dubia | | |
| with reference to | pH < 7 | | |
| Method | US EPA 821-R-02-012 | | |
| Source | CSR | | |

| Toxicity to Daphnia (chronic) | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | **231-175-3** |

| | | | |
|---|---|---|---|
| NOEC | | 82 | µg/l |
| Duration of exposure | | 7 | day(s) |
| Species | Daphnia magna | | |
| with reference to | pH 6.0 | | |
| Source | CSR | | |

| Toxicity to algae (acute) | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | **231-175-3** |

| | | | |
|---|---|---|---|
| EC50 | | 0.3 | mg/l |
| Duration of exposure | | 72 | h |
| Species | Selenastrum capricornutum | | |
| with reference to | pH > 7 - 8,5 | | |
| Method | OECD 201 | | |
| Source | CSR | | |

| Toxicity to algae (chronic) | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **zinc powder - zinc dust (stabilized)** | **7440-66-6** | **231-175-3** |
| NOEC | 19 | µg/l | |
| Duration of exposure | 7 | day(s) | |
| Species | Pseudokirchneriella subcapitata | | |
| with reference to | pH 8.0 | | |
| Source | CSR | | |

| Bacteria 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.

### 12.7 Other information

| Other information |
|---|
| Do not discharge into the drains or waters and do not store on public depositories. |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product**
Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

**Packaging**
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.

## SECTION 14: Transport information

### 14.1 Transport ADR/RID/ADN

| | |
|---|---|
| Class | 9 |
| Classification code | M7 |
| Packing group | III |
| Hazard identification no. | 90 |
| UN number | UN3077 |
| Technical name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| Danger releasing substance | zinc powder - zinc dust (stabilized) |
| Tunnel restriction code | E |
| Label | 9 |
| Environmentally hazardous substance mark | Symbol "fish and tree" |

### 14.2 Transport IMDG

| | |
|---|---|
| Class | 9 |
| Packing group | III |
| UN number | UN3077 |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| Danger releasing substance | zinc powder - zinc dust (stabilized) |
| EmS | F-A+S-F |
| Label | 9 |
| Marine pollutant mark | Symbol "fish and tree" |

### 14.3 Transport ICAO-TI / IATA

| | |
|---|---|
| Class | 9 |
| Packing group | III |
| UN number | UN3077 |
| Proper shipping name | Environmentally hazardous substance, solid, n.o.s. |
| Danger releasing substance | zinc powder - zinc dust (stabilized) |
| Label | 9 |
| Environmentally hazardous substance mark | Symbol "fish and tree" |

### 14.4 Other information

No data available.

### 14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

### 14.6 Special precautions for user

No data available.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

## SECTION 15: Regulatory information

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

**EU regulations**

| **Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)** |
|---|
| In accordance with the Reach regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation. |

| **REACH candidate list of substances of very high concern (SVHC) for authorisation** |
|---|
| In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list"). |

| **Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES** |
|---|
| The substance is not subject to the provisions of annex XVII (restriction entries) of the Reach regulation (EC) 1907/2006. |

| **Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances** | |
|---|---|
| This product is subject to Part I of Annex I, risk category: | E1 |

| **Other regulations** |
|---|
| Observe employment restrictions for young people. |

### 15.2 Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

## SECTION 16: Other information

**Sources of key data used to compile the data sheet:**
Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.
EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

**Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

| | |
|---|---|
| H400 | Very toxic to aquatic life. |

**Department issuing safety data sheet**

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Tel.: +49 40 / 79 02 36 300 Fax: +49 40 / 79 02 36 357 e-mail: umco@umco.de


This information is based on our present state of knowledge and experience.
The security data sheet describes products with a view to the security requirements.
However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:
Alterations to the previous edition are marked in the left-hand margin.