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

1.1 Product identifier

Identification of the substance: Zinc dust
Article number: 9524
Registration number (REACH): not relevant (mixture)

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

Identified uses: laboratory chemical

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone: +49 (0) 721 - 56 06 0
Telefax: +49 (0) 721 - 56 06 149
E-mail: sicherheit@carlroth.de
Website: www.carlroth.de

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

E-mail (competent person): sicherheit@carlroth.de

1.4 Emergency telephone number

Emergency information service: Poison Centre Munich: +49/(0)89 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

<table>
<thead>
<tr>
<th>Section</th>
<th>Hazard class</th>
<th>Hazard class and category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3</td>
<td>serious eye damage/eye irritation</td>
<td>(Eye Irrit. 2)</td>
<td>H319</td>
</tr>
<tr>
<td>3.7</td>
<td>reproductive toxicity</td>
<td>(Repr. 2)</td>
<td>H361</td>
</tr>
<tr>
<td>3.8</td>
<td>specific target organ toxicity - single exposure</td>
<td>(STOT SE 2)</td>
<td>H371</td>
</tr>
</tbody>
</table>

2.2 Label elements
Zinc dust ≥98%, particle size <63 μm stabilized

article number: 9524

Labelling GHS

Signal word   Warning

Pictograms

Hazard statements
H319  Causes serious eye irritation
H361  Suspected of damaging fertility or the unborn child
H371  May cause damage to organs

Precautionary statements

Precautionary statements - prevention
P260  Do not breathe dust/fume/gas/mist/vapours/spray.

Precautionary statements - response
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+P311  IF exposed or concerned: Call a POISON CENTER/doctor.
P308+P313  IF exposed or concerned: Get medical advice/attention.
P337+P313  If eye irritation persists: Get medical advice/attention.

Precautionary statements - disposal
P501  Dispose of contents/container to industrial combustion plant.

For professional users only

Hazardous ingredients for labelling: Zinc oxide

Labelling of packages where the contents do not exceed 125 ml
Signal word: Warning
Symbol(s)

H361  Suspected of damaging fertility or the unborn child.
P308+P313  IF exposed or concerned: Get medical advice/attention.
contains:  Zinc oxide

2.3 Other hazards
There is no additional information.
SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Description of the mixture**

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>Identifier</th>
<th>wt%</th>
<th>Classification acc. to 1272/2008/EC</th>
<th>Pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>CAS No 7440-66-6</td>
<td>≥ 95</td>
<td>Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC No 231-175-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index No 030-001-01-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>CAS No 1314-13-2</td>
<td>≤ 5</td>
<td>Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC No 215-222-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index No 030-013-00-7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REACH Reg. No 01-2119463881-32-xxxx</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General notes**

Take off contaminated clothing.

**Following inhalation**

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

**Following skin contact**

Rinse skin with water/shower.

**Following eye contact**

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.2 Most important symptoms and effects, both acute and delayed
Irritant effects, Fever, Nausea, Vomiting, Irritation

4.3 Indication of any immediate medical attention and special treatment needed
none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Co-ordinate fire-fighting measures to the fire surroundings
water spray, foam, dry extinguishing powder, carbon dioxide (CO2)

Unsuitable extinguishing media
water jet

5.2 Special hazards arising from the substance or mixture
Combustible.

Hazardous combustion products
in case of fire and/or explosion do not breathe fumes

5.3 Advice for firefighters
Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Do not breathe dust.

6.2 Environmental precautions
Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill
Covering of drains.

Advices on how to clean up a spill
Take up mechanically. Control of dust.

Other information relating to spills and releases
Place in appropriate containers for disposal.

6.4 Reference to other sections
Hazardous combustion products: see section 5. Personal protective equipment: see section 8.
Incompatible materials: see section 10. Disposal considerations: see section 13.
Zinc dust ≥98%, particle size <63 μm stabilized

article number: 9524

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid dust formation. Provide adequate ventilation.

Advice on general occupational hygiene
Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed. Store in a dry place.

Incompatible substances or mixtures
Observe hints for combined storage.

Consideration of other advice
• Ventilation requirements
Use local and general ventilation.

• Specific designs for storage rooms or vessels
Recommended storage temperature: 15 - 25 °C.

7.3 Specific end use(s)
No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of agent</th>
<th>Notation</th>
<th>Identifier</th>
<th>TWA [mg/m³]</th>
<th>STEL [mg/m³]</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU</td>
<td>zinc oxide</td>
<td>fume</td>
<td>WES</td>
<td>5</td>
<td>10</td>
<td>WES</td>
</tr>
<tr>
<td>AU</td>
<td>zinc oxide</td>
<td>i, noAsb_less1Sil, dust</td>
<td>WES</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notation

dust As dust
fume As fume
i Inhalable fraction
noAsb_less1 Contains no asbestos and less than 1% free crystalline silica
Sil STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified
TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs/DMELs/PNECs and other threshold levels

• relevant DNELs of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>DNEL</td>
<td>50 mg/kg</td>
<td>human, oral</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>DNEL</td>
<td>5 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
</tbody>
</table>
### Zinc dust \( \geq 98\% \), particle size <63 \( \mu \)m stabilized

#### article number: 9524

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>DNEL</td>
<td>83 mg/kg bw/day</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>DNEL</td>
<td>0.8 mg/kg</td>
<td>human, oral</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>DNEL</td>
<td>5 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>DNEL</td>
<td>83 mg/kg bw/day</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>DNEL</td>
<td>0.5 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - local effects</td>
</tr>
</tbody>
</table>

• relevant PNECs of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Threshold level</th>
<th>Environmental compartment</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>20.6 ( \mu )g/l</td>
<td>freshwater</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>6.1 ( \mu )g/l</td>
<td>marine water</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>100 ( \mu )g/l</td>
<td>sewage treatment plant (STP)</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>117.8 ( \text{mg/kg} )</td>
<td>freshwater sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>56.5 ( \text{mg/kg} )</td>
<td>marine sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>35.6 ( \text{mg/kg} )</td>
<td>soil</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>20.6 ( \mu )g/l</td>
<td>freshwater</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>6.1 ( \mu )g/l</td>
<td>marine water</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>100 ( \mu )g/l</td>
<td>sewage treatment plant (STP)</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>117.8 ( \text{mg/kg} )</td>
<td>freshwater sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>56.5 ( \text{mg/kg} )</td>
<td>marine sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>35.6 ( \text{mg/kg} )</td>
<td>soil</td>
<td>short-term (single instance)</td>
</tr>
</tbody>
</table>

#### 8.2 Exposure controls

**Individual protection measures (personal protective equipment)**

![Icon of individual protection measures](image)
Eye/face protection
Use safety goggle with side protection.

Skin protection

• hand protection
Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

• type of material
NBR (Nitrile rubber)

• material thickness
>0.11 mm

• breakthrough times of the glove material
>480 minutes (permeation: level 6)

• other protection measures
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection
Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

Environmental exposure controls
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Physical state solid (powder)
Colour grey
Odour odourless
Odour threshold No data available

Other physical and chemical parameters
pH (value) This information is not available.
Melting point/freezing point 420 °C
Initial boiling point and boiling range 907 °C
Flash point not applicable
Evaporation rate no data available
Flammability (solid, gas) Flammable Stabilised
**Zinc dust ≥98%, particle size <63 µm stabilized**

**article number: 9524**

### Explosive limits

- **lower explosion limit (LEL)**: (250 g/m³)
- **upper explosion limit (UEL)**: this information is not available
- **Explosion limits of dust clouds**: these information are not available
- **lower explosion limit (LEL)**: 250 g/m³

### Vapour pressure

- Vapour pressure: 1 hPa at 487 °C

### Density

- Density: 7.14 g/cm³ at 20 °C

### Vapour density

- Vapour density: This information is not available.

### Bulk density

- Bulk density: 1,800 - 2,700 kg/m³

### Relative density

- Relative density: Information on this property is not available.

### Solubility(ies)

- Water solubility: insoluble

### Partition coefficient

- n-octanol/water (log KOW): This information is not available.

### Auto-ignition temperature

- Auto-ignition temperature: 500 °C

### Decomposition temperature

- Decomposition temperature: no data available

### Viscosity

- Viscosity: not relevant (solid matter)

### Explosive properties

- Explosive properties: Shall not be classified as explosive

### Oxidising properties

- Oxidising properties: none

### 9.2 Other information

There is no additional information.

- Particle size: <63 µm

---

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Dust explosibility.

#### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 10.3 Possibility of hazardous reactions

Violent reaction with: Alkali hydroxide (caustic alkali), Acids, Alkali (lye), Ammonium compounds, Azides, Chlorates, Nitrate, Peroxides, Metal catalyst, Cadmium, Hydrazine, Nitric acid, Halogenated hydrocarbons, Nitro compound, Sulphur, Oxidisers, => Explosive properties
Zinc dust ≥98%, particle size <63 μm stabilized

article number: 9524

10.4 Conditions to avoid
Protect from moisture.

10.5 Incompatible materials
There is no additional information.

10.6 Hazardous decomposition products
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Shall not be classified as acutely toxic.

Skin corrosion/irritation
Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties

Reproductive toxicity:
Suspected of damaging fertility or the unborn child

• Specific target organ toxicity - single exposure
May cause damage to organs.

• Specific target organ toxicity - repeated exposure
Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard
Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed
nausea, vomiting

• If in eyes
data are not available

• If inhaled
Inhalation of dust may cause irritation of the respiratory system

• If on skin
Frequently or prolonged contact with skin may cause dermal irritation

Other information
Other adverse effects: Fever, Cardiac arrhythmias, Circulatory collapse
Zinc dust ≥98%, particle size <63 μm stabilized

article number: 9524

**SECTION 12: Ecological information**

12.1 **Toxicity**

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

**Aquatic toxicity (acute)**

**Aquatic toxicity (acute) of components of the mixture**

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>EC50</td>
<td>2.2 mg/l</td>
<td>daphnia magna</td>
<td>48 h</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>EC50</td>
<td>136 mg/l</td>
<td>Selenastrum capricornatum</td>
<td>72 h</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>LC50</td>
<td>1.1 mg/l</td>
<td>rainbow trout (Oncorhynchus mykiss)</td>
<td>96 h</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>LC50</td>
<td>&gt;320 mg/l</td>
<td>bluegill (Lepomis macrochirus)</td>
<td>96 h</td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>LC50</td>
<td>2,246 mg/l</td>
<td>Pimephales promelas</td>
<td>96 h</td>
</tr>
</tbody>
</table>

12.2 **Process of degradability**

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

12.3 **Bioaccumulative potential**

Data are not available.

**Bioaccumulative potential of components of the mixture**

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>BCF</th>
<th>Log KOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc powder — zinc dust (stabilized)</td>
<td>7440-66-6</td>
<td>69.48</td>
<td></td>
</tr>
<tr>
<td>Zinc oxide</td>
<td>1314-13-2</td>
<td>250</td>
<td>&lt;4</td>
</tr>
</tbody>
</table>

12.4 **Mobility in soil**

Data are not available.

12.5 **Results of PBT and vPvB assessment**

Data are not available.

12.6 **Other adverse effects**

Data are not available.
This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations. Do not empty into drains.

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

Provisions for dangerous goods (ADR) should be complied within the premises.

The cargo is not intended to be carried in bulk.

Zinc dust ≥98%, particle size <63 μm stabilized

article number: 9524

SECTION 13: Disposal considerations

13.1 Waste treatment methods
This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information
Do not empty into drains.

Waste treatment of containers/packagings
It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

13.2 Relevant provisions relating to waste
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.3 Remarks
Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number
3077

14.2 UN proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Hazardous ingredients
Zinc powder — zinc dust (stabilized), Zinc oxide

14.3 Transport hazard class(es)
Class 9 (miscellaneous dangerous substances and articles) (environmentally hazardous)

14.4 Packing group
III (substance presenting low danger)

14.5 Environmental hazards
hazardous to the aquatic environment (zinc powder — zinc dust (stabilized))

14.6 Special precautions for user
Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

• Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number
3077

Proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Particulars in the transport document
UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (contains: zinc powder — zinc dust (stabilized), Zinc oxide), 9, III, (-)

Class 9
Classification code M7
Packing group III
Danger label(s) 9 + "fish and tree"
Environmental hazards: yes (hazardous to the aquatic environment)
Special provisions (SP): 274, 335, 375, 601
Excepted quantities (EQ): E1
Limited quantities (LQ): 5 kg
Transport category (TC): 3
Tunnel restriction code (TRC): -
Hazard identification No: 90

Emergency Action Code
2Z

International Maritime Dangerous Goods Code (IMDG)
UN number: 3077
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Particulars in the shipper's declaration: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (contains: zinc powder — zinc dust (stabilized), Zinc oxide), 9, III
Class: 9
Marine pollutant: yes (hazardous to the aquatic environment)
Packing group: III
Danger label(s): 9 + "fish and tree"

Special provisions (SP): 274, 335, 966, 967, 969
Excepted quantities (EQ): E1
Limited quantities (LQ): 5 kg
EmS: F-A, S-F
Stowage category: A

International Civil Aviation Organization (ICAO-IATA/DGR)
UN number: 3077
Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
Particulars in the shipper's declaration: UN3077, Environmentally hazardous substance, solid, n.o.s., (contains: zinc powder — zinc dust (stabilized), Zinc oxide), 9, III
Class: 9
Environmental hazards: yes (hazardous to the aquatic environment)
Zinc dust ≥98%, particle size <63 μm stabilized

article number: 9524

Packing group III
Danger label(s) 9 + "fish and tree"

Special provisions (SP) A97, A158, A179, A197, 274
Excepted quantities (EQ) E1
Limited quantities (LQ) 30 kg

SECTION 15: Regulatory information

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

National inventories
- DSL/NDSL (Canada)
- Toxic Substance Control Act (TSCA)

15.2 Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1 Indication of changes (revised safety data sheet)

<table>
<thead>
<tr>
<th>Section</th>
<th>Former entry (text/value)</th>
<th>Actual entry (text/value)</th>
<th>Safety-relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Classification according to Regulation (EC) No 1272/2008 (CLP)</td>
<td>Classification acc. to GHS</td>
<td>yes</td>
</tr>
<tr>
<td>2.2</td>
<td>Labelling according to Regulation (EC) No 1272/2008 (CLP)</td>
<td>Labelling GHS</td>
<td>yes</td>
</tr>
<tr>
<td>8.1</td>
<td>• relevant DNELs of components of the mixture: change in the listing (table)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>8.1</td>
<td>• relevant PNECs of components of the mixture: change in the listing (table)</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>14.2</td>
<td>Hazardous ingredients: Zinc powder — zinc dust (stabilized)</td>
<td>Hazardous ingredients: Zinc powder — zinc dust (stabilized), Zinc oxide</td>
<td>yes</td>
</tr>
<tr>
<td>14.8</td>
<td>Tunnel restriction code (TRC): E</td>
<td>Tunnel restriction code (TRC): -</td>
<td>yes</td>
</tr>
<tr>
<td>14.8</td>
<td>Particulars in the shipper's declaration: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (contains: zinc powder — zinc dust (stabilized)), 9, III</td>
<td>Particulars in the shipper's declaration: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (contains: zinc powder — zinc dust (stabilized), Zinc oxide), 9, III</td>
<td>yes</td>
</tr>
<tr>
<td>14.8</td>
<td>Particulars in the shipper's declaration: UN3077, Environmentally hazardous substance, solid, n.o.s., (contains: zinc powder — zinc dust (stabilized)), 9, III</td>
<td>Particulars in the shipper's declaration: UN3077, Environmentally hazardous substance, solid, n.o.s., (contains: zinc powder — zinc dust (stabilized), Zinc oxide), 9, III</td>
<td>yes</td>
</tr>
<tr>
<td>14.8</td>
<td>Packing group: III9 + “fish and tree”</td>
<td>Packing group: III</td>
<td>yes</td>
</tr>
</tbody>
</table>
Zinc dust ≥98%, particle size <63 μm stabilized

<table>
<thead>
<tr>
<th>Section</th>
<th>Former entry (text/value)</th>
<th>Actual entry (text/value)</th>
<th>Safety-relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.8</td>
<td></td>
<td>Danger label(s): 9 + “fish and tree”</td>
<td>yes</td>
</tr>
<tr>
<td>14.8</td>
<td></td>
<td>Danger label(s): change in the listing (table)</td>
<td>yes</td>
</tr>
</tbody>
</table>

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>hazardous to the aquatic environment - acute hazard</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>hazardous to the aquatic environment - chronic hazard</td>
</tr>
<tr>
<td>BCF</td>
<td>bioconcentration factor</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>CMR</td>
<td>Carcinogenic, Mutagenic or toxic for Reproduction</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>DMEL</td>
<td>Derived Minimal Effect Level</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level</td>
</tr>
<tr>
<td>EC No</td>
<td>The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>EmS</td>
<td>Emergency Schedule</td>
</tr>
<tr>
<td>GHS</td>
<td>&quot;Globally Harmonized System of Classification and Labelling of Chemicals&quot; developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>index No</td>
<td>the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008</td>
</tr>
<tr>
<td>log KOW</td>
<td>n-octanol/water</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of &quot;Marine Pollutant&quot;)</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No-Effect Concentration</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)</td>
</tr>
</tbody>
</table>
The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

### Key literature references and sources for data
- UN Recommendations on the Transport of Dangerous Good
- Dangerous Goods Regulations (DGR) for the air transport (IATA)
- International Maritime Dangerous Goods Code (IMDG)

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H319</td>
<td>causes serious eye irritation</td>
</tr>
<tr>
<td>H361</td>
<td>suspected of damaging fertility or the unborn child</td>
</tr>
<tr>
<td>H371</td>
<td>may cause damage to organs</td>
</tr>
<tr>
<td>H400</td>
<td>very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

### Disclaimer
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