

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.09.2017

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## Zinc Oxide

### SECTION 1: Identification

#### Product identifier

**Product name:** Zinc Oxide

**Product code:** S25641

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory Chemicals

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

**Manufacturer:**

**United States**

AquaPhoenix Scientific

860 Gitts Run Road

Hanover

PA 17331

(717) 632-1291

**Supplier:**

**United States**

Fisher Science Education

6771 Silver Crest Road

Nazareth

PA 18064

800 955-1177

#### Emergency telephone number:

**United States**

Emergency Telephone No.: 800-255-3924

### SECTION 2: Hazard(s) identification

#### GHS classification:

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Warning

#### Hazard statements:

H400 Very toxic to aquatic life.

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 and container as instructed in Section 13.

**Hazards not otherwise classified:** None

### SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
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CAS number: 1314-13-2	Zinc oxide	100
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**Additional Information:** None

### SECTION 4: First aid measures

#### Description of first aid measures

##### General notes:

Not determined or not applicable.

##### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

##### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

##### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

##### After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

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

##### Acute symptoms and effects:

Not determined or not applicable.

##### Delayed symptoms and effects:

Not determined or not applicable.

#### Immediate medical attention and special treatment

##### Specific treatment:

Not determined or not applicable.

##### Notes for the doctor:

Not determined or not applicable.

### SECTION 5: Firefighting measures

#### Extinguishing media

##### Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

##### Unsuitable extinguishing media:

Not determined or not applicable.

#### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

#### Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

#### Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion

Heating causes a rise in pressure, risk of bursting and combustion

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### SECTION 6: Accidental release measures

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

- Ensure air handling systems are operational
- Wear protective eye wear, gloves and clothing
- Ensure adequate ventilation

#### Environmental precautions:

- Should not be released into the environment
- Prevent from reaching drains, sewer or waterway

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

- Wear protective eye wear, gloves and clothing
- Sweep or scoop up solid material while minimizing dust generation
- Dispose of contents / container in accordance with local regulations

#### Reference to other sections:

Not determined or not applicable.

### SECTION 7: Handling and storage

#### Precautions for safe handling:

- Use only with adequate ventilation.
- Avoid breathing dust.
- Do not eat, drink, smoke or use personal products when handling chemical substances.

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

- Keep container tightly sealed.
- Keep container dry.
- Store in a cool, well-ventilated area.

### SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

#### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Zinc oxide	1314-13-2	ACGIH TLV TWA 2.0 mg/m <sup>3</sup>
	Zinc oxide	1314-13-2	ACGIH TLV TWA 10.0 mg/m <sup>3</sup>
United States (OSHA)	Zinc oxide	1314-13-2	OSHA PEL TWA 5 mg/m <sup>3</sup> (Fume)
	Zinc oxide	1314-13-2	OSHA PEL TWA 15 mg/m <sup>3</sup> (Total dust)
	Zinc oxide	1314-13-2	OSHA PEL TWA 5 mg/m <sup>3</sup> (Respirable fraction)
NIOSH	Zinc oxide	1314-13-2	NIOSH REL TWA 5.0 mg/m <sup>3</sup> ; C 15 mg/m <sup>3</sup> (Dust)
	Zinc oxide	1314-13-2	NIOSH REL TWA 5.0 mg/m <sup>3</sup> ; ST 10 mg/m <sup>3</sup> (Fume)

#### Biological limit values:

No biological exposure limits noted for the ingredient(s).

#### Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. Biological monitoring may also be appropriate for some substances.

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### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.  
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

Select glove material impermeable and resistant to the substance.  
Wear appropriate clothing to prevent any possibility of skin contact.

#### Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

### General hygienic measures:

Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and at the end of work.  
Wash contaminated clothing before reuse.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Off-white
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not determined or not available.
<b>pH</b>	7.50 g/L aq. sol (susp)
<b>Melting point/freezing point</b>	1975 °C / 3587 °F
<b>Initial boiling point/range</b>	Not determined or not available.
<b>Flash point (closed cup)</b>	Not determined or not available.
<b>Evaporation rate</b>	Not determined or not available.
<b>Flammability (solid, gas)</b>	Not determined or not available.
<b>Upper flammability/explosive limit</b>	Not determined or not available.
<b>Lower flammability/explosive limit</b>	Not determined or not available.
<b>Vapor pressure</b>	Not determined or not available.
<b>Vapor density</b>	Not determined or not available.
<b>Density</b>	Not determined or not available.
<b>Relative density</b>	5.6
<b>Solubilities</b>	Not determined or not available.
<b>Partition coefficient (n-octanol/water)</b>	Not determined or not available.
<b>Auto/Self-ignition temperature</b>	Not determined or not available.
<b>Decomposition temperature</b>	Not determined or not available.
<b>Dynamic viscosity</b>	Not determined or not available.
<b>Kinematic viscosity</b>	Not determined or not available.
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	Not determined or not available.

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### Other information

### SECTION 10: Stability and reactivity

#### Reactivity:

Does not react under normal conditions of use and storage.

#### Chemical stability:

Stable under normal conditions of use and storage.

#### Possibility of hazardous reactions:

None under normal conditions of use and storage.

#### Conditions to avoid:

Avoid generating dust.

#### Incompatible materials:

Magnesium, chlorinated rubber.

#### Hazardous decomposition products:

Oxides of zinc.

### SECTION 11: Toxicological information

#### Acute toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Skin corrosion/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Serious eye damage/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

#### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

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### Specific target organ toxicity (single exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

## SECTION 12: Ecological information

### Acute (short-term) toxicity

**Assessment:** Very toxic to aquatic life

**Product data:** No data available.

**Substance data:**

Name	Result
Zinc oxide	Oncorhynchus mykiss (rainbow trout) - 1.1 mg/l - 96.0 h
	Daphnia magna (Water flea) - 0.098 mg/l - 48 h

### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.

## SECTION 13: Disposal considerations

### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

## SECTION 14: Transport information

### United States Transportation of dangerous goods (49 CFR DOT)

UN number	3077
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**Zinc Oxide**

<b>UN proper shipping name</b>	Environmentally Hazardous Substance, Solid, N.O.S. Zinc Oxide		
<b>UN transport hazard class(es)</b>	9		
<b>Packing group</b>	III		
<b>Environmental hazards</b>	Marine Pollutant Zinc Oxide Marine Pollutant		
<b>Special precautions for user</b>	None		

**International Maritime Dangerous Goods (IMDG)**

<b>UN number</b>	3077		
<b>UN proper shipping name</b>	Environmentally Hazardous Substance, Solid, N.O.S. Zinc Oxide		
<b>UN transport hazard class(es)</b>	9		
<b>Packing group</b>	III		
<b>Environmental hazards</b>	Marine Pollutant Zinc Oxide		
<b>Special precautions for user</b>	None		

**International Air Transport Association Dangerous Goods Regulations (IATA-DGR)**

<b>UN number</b>	3077		
<b>UN proper shipping name</b>	Environmentally Hazardous Substance, Solid, N.O.S. Zinc Oxide		
<b>UN transport hazard class(es)</b>	9		
<b>Packing group</b>	III		
<b>Environmental hazards</b>	Marine Pollutant Zinc Oxide		
<b>Special precautions for user</b>	None		

<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
<b>Bulk Name</b>	None
<b>Ship type</b>	None
<b>Pollution category</b>	None

**SECTION 15: Regulatory information**

**United States regulations**

**Inventory listing (TSCA):**

1314-13-2	Zinc oxide	Listed
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**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

**SARA Section 311/312 hazards:**

Acute	Chronic	Fire	Pressure	Reactive
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No	No	No	No	No
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**SARA Section 302 extremely hazardous substances:** Not determined.

**SARA Section 313 toxic chemicals:**

1314-13-2	Zinc oxide	Not Listed
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**CERCLA:** Not determined.

**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):** Not determined.

**Massachusetts Right to Know:**

1314-13-2	Zinc oxide	Listed
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**New Jersey Right to Know:**

1314-13-2	Zinc oxide	Not Listed
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**New York Right to Know:**

1314-13-2	Zinc oxide	Listed
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**Pennsylvania Right to Know:**

1314-13-2	Zinc oxide	Listed
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**California Proposition 65:** Not determined.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

**Disclaimer:**

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 0-0-0-0

**HMIS:** 0-0-0-0

**Initial preparation date:** 05.09.2017

**End of Safety Data Sheet**