

# MATERIAL SAFETY DATA SHEET

ZINC OXIDE

## 1 PRODUCT & COMPANY IDENTIFICATION

<b>Product Name:</b> Zinc oxide	<b>Supplier:</b> ASES CHEMICAL WORKS.
<b>CAS No:</b> 1314-13-2	<b>Address:</b> Brahm Bagh, Jalori Gate Jodhpur - 342001 Rajasthan-India
<b>Synonym:</b> Zinc white, calamine, Chinese white, flowers of zinc	<b>Phone:</b> +91-9636889954
<b>INCI Name :</b> Zinc Oxide	<b>Web:</b> www.ases.in
<b>Formula :</b> ZnO	<b>Email :</b> ecom@ases.in
<b>Product Form:</b> Solid	
<b>Product Use:</b> Cosmetic use.	

## 2 HAZARDS IDENTIFICATION

**Classification of the substance or mixture :** Hazardous in case of inhalation. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion..

Hazard statements H410 Very toxic to aquatic life with long lasting effects

**Label elements :** Signal word : Warning. GHS 09



**Other hazards Results of PBT and vPvB assessment :**

According to the results of its assessment, this substance is not a PBT or a vPvB.

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

Product Name	CAS No	EC No	Molecular Weight	Weight%
Zinc oxide	1314-13-2	215-222-5	81.37g/mol	99%

## 4 FIRST AID MEASURES

<b>Eyes:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.
<b>Inhalation:</b>	If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.
<b>Skin:</b>	Wash skin with plenty of water for several minutes Get medical attention if skin irritation develops or persists.
<b>Ingestion:</b>	If patient is conscious and can swallow, give water, induce vomiting as directed by medical personnel. Do Not Induce Vomiting or give anything by mouth to an unconscious person. Get medical attention if necessary.

## 5 FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture :** low addition of zinc oxide to cover linseed oil varnish causes generation of heat and ignition..

**Advice for firefighters :** Wear self-contained breathing apparatus for firefighting if necessary.

**Further info:** May explode when mixed with chlorinated rubber. Zinc Oxide and Magnesium can react explosively when heated.

## 6 ACCIDENTAL RELEASE MEASURES

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## 7 HANDLING & STORAGE

**Precautions:** Keep locked up.. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as acids.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F)

# MATERIAL SAFETY DATA SHEET

## ZINC OXIDE

### 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an certified respirator or equivalent. Gloves.

#### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

#### Exposure Limits:

TWA: 5 STEL: 10 (mg/m<sup>3</sup>) from ACGIH (TLV) [United States] Inhalation TWA: 15 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Total. TWA: 5 STEL: 10 CEIL: 25 (mg/m<sup>3</sup>) from NIOSH Inhalation TWA: 5 STEL: 10 (mg/m<sup>3</sup>) from OSHA (PEL) [United States] Inhalation Respirable. Consult local authorities for acceptable exposure limits.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

**Physical state and appearance:** Solid. (Powdered solid.)

**Odor:** Odorless.

**Taste:** Bitter.

**Molecular Weight:** 81.38 g/mole

**Color:** White to yellowish-white

**pH (1% soln/water):** Not applicable.

**Boiling Point:** Not available.

**Melting Point:** 1975°C (3587°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 5.607 (Water = 1)

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Is not dispersed in cold/hot water.

#### Solubility:

Insoluble in cold water, hot water Soluble in dilute acetic acid, or mineral acids, ammonia, ammonium carbonate, fixed alkali hydroxide solution.

### 10 STABILITY AND REACTIVITY

**Reactivity:** None under normal use conditions

**Chemical Stability:** Stable under normal temperature conditions

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** None known.

**Incompatible Materials:** Avoid contact with: Nitrites, strong acids, strong oxidizers

**Corrosivity:** Non-corrosive in presence of glass

**Special Remarks on Reactivity:** Reacts violently with magnesium, linseed oil. Reacts with hydrochloric acid to produce zinc chloride. Reacts with sulfuric acid to produce zinc sulfate. Reacts with hydrogen fluoride to produce zinc fluoride tetrahydrate. Gradually absorbs CO<sub>2</sub> on exposure to air. Sublimes at normal pressure. Zinc Oxide reacts with Carbon Monoxide or hydrogen to produce elemental zinc.

### 11 TOXICOLOGICAL INFORMATION

**Routes of Entry:** Dermal contact. Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD<sub>50</sub>): 7950 mg/kg [Mouse].

**Chronic Effects on Humans:** MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/ or yeast.

#### Other Toxic Effects on Humans:

Hazardous in case of inhalation. Slightly hazardous in case of skin contact (irritant), of ingestion.

**Special Remarks on Toxicity to Animals:** Not available.

#### Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects based on animal data. No human data found at this time. May affect genetic material (mutagenic).

## MATERIAL SAFETY DATA SHEET

### ZINC OXIDE

#### Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: May cause mild skin irritation. Eyes: May cause mechanical eye irritation and conjunctivitis. Inhalation: May cause mechanical irritation of the respiratory tract. A few sources claim that finely divided zinc oxide dust can cause "metal fume fever." Zinc oxide dust is generally considered a nuisance dust; adverse effects are unlikely when exposures are kept under reasonable control. Inhalation of high concentrations of Zinc Oxide fume or dust may cause "Metal Fume Fever." Symptoms of metal fume fever may include a flu-like condition involving headache, chills, fever, sweats, nausea, vomiting, cough, muscle aches and pains, and difficulty breathing, ; ulmonary edema. May also affect the liver. Ingestion: May cause digestive tract irritation although Zinc oxide has a low toxicity by oral exposure route. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion of zinc oxide may affect blood, metabolism, and the thyroid.

#### 12 ECOLOGICAL INFORMATION

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

#### 13 DISPOSAL CONSIDERATIONS

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

#### 14 TRANSPORT INFORMATION

**US DOT Shipping Description (Land) :** Not regulated

**IMO-IMDG Shipping Description (Sea) :** Not regulated

**IATA Shipping Description (Air) :** Not regulated

#### 15 REGULATORY INFORMATION

**Chemical Safety Assessment:** This product does not contain any chemical components regulated.

**Other :** Not regulated

#### 16 OTHER INFORMATION

##### Disclaimer & Caution

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 ASES CHEMICAL WORKS assume no liability resulting from its use.