

## Zinc Oxide, Micronized & Coated


Safety Data Sheet according to Federal Register / Vol. 77, No. 58 /  
March 26, 2012 / Rules and Regulation

Revision Date: 05-02-2015  
Supersedes: 03-21-2014

### 1 PRODUCT & COMPANY IDENTIFICATION

<b>Product Name:</b>	Zinc Oxide, Micronized & Coated	<b>Distributor:</b>	XI'AN AOGU BIOTECH CO.,LTD
<b>Synonyms:</b>	Zinc oxide, calamine	<b>Address:</b>	Room 606,Block B3,Jinye Times,No.32, East Section of Jinye Road, Yanta District, Xi'an Shaanxi 710065 China
<b>INCI Name:</b>	Zinc oxide, triethoxycaprylylsilane	<b>Phone / Fax:</b>	0086-29-89121514 0086-18091843361
<b>CAS Number:</b>	1314-13-2, 2943-75-1	<b>Web:</b>	<a href="http://www.aogubio.com">www.aogubio.com</a>
<b>Formula:</b>	Not available	<b>Emergency Telephone Number:</b>	<b>0086-18091843361</b>
<b>Product Form:</b>	Microfine powder		<b>(Chemtrec)</b>
<b>Product Use:</b>	Cosmetic use		

### 2 HAZARDS IDENTIFICATION

<b>GHS Signal Word:</b>	<b>WARNING</b>												
<b>GHS Hazard Pictograms:</b>													
<b>GHS Hazard Statements:</b>	H410: Very toxic to aquatic life with long lasting effects												
<b>GHS Precautionary Statements:</b>	P501: Dispose in accordance with local disposal regulations												
<b>Potential Health Hazards:</b>													
<b>Eyes:</b>	Can cause irritation, tearing and mild temporary pain.												
<b>Inhalation:</b>	Dust is non-toxic if inhaled, except of a few reported cases of metal fume fever. Some workers develop a tolerance after repeated daily exposure to zinc oxide fume. This tolerance is lost after short periods away from work.												
<b>Skin:</b>	May cause skin irritation												
<b>Ingestion:</b>	May cause vomiting, nausea, thirst, diarrhea and abdominal pain.												
<b>NFPA Ratings (704):</b>	<table border="0"> <tr> <td style="background-color: #0070C0; color: white;">Health</td> <td style="background-color: #0070C0; color: white;">2</td> <td>Moderate</td> </tr> <tr> <td style="background-color: #FF0000; color: white;">Flammability</td> <td style="background-color: #FF0000; color: white;">1</td> <td>Slight</td> </tr> <tr> <td style="background-color: #FFFF00; color: black;">Reactivity</td> <td style="background-color: #FFFF00; color: black;">0</td> <td>Minimal</td> </tr> <tr> <td>Specific Hazard</td> <td>W</td> <td>Use no water</td> </tr> </table>	Health	2	Moderate	Flammability	1	Slight	Reactivity	0	Minimal	Specific Hazard	W	Use no water
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Specific Hazard	W	Use no water											

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>Weight %</u>	<u>Molecular Weight</u>
Zinc Oxide	1314-13-2	96% - 99%	81.38 g/mol
Triethoxycaprylylsilane	2943-75-1	1% - 4%	276.49 g/mol

### 4 FIRST AID MEASURES

<b>Eyes:</b>	In case of eye contact, rinse with plenty of water and seek medical attention if necessary
<b>Inhalation:</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
<b>Skin:</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary
<b>Ingestion:</b>	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

### 5 FIRE-FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** Product is not flammable. Use appropriate media for adjacent fire. Cool unopened containers with water.

**Special protective equipment & precautions for firefighters:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

**Specific hazards:** Emits toxic fumes under fire conditions. See also Stability and Reactivity section.

## 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions:** See section 8 for recommendations on the use of personal protective equipment.

**Environmental precautions:** Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements

**Methods and material for containment and cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and place in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations

## 7 HANDLING & STORAGE

**Safe handling:** See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

**Safe storage:** Store in cool, dry well ventilated area. Keep away from incompatible materials.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Component</u>	<u>Exposure Limits</u>	<u>Basis</u>	<u>Entity</u>
Zinc Oxide	2.0 mg/m <sup>3</sup> -total dust	TWA	ACGIH
Zinc Oxide	10.0 mg/m <sup>3</sup> - total dust	STEL	ACGIH
Zinc Oxide	5.0 mg/m <sup>3</sup> - TWA respirable fraction	PEL	OSHA
Zinc Oxide	15.0 mg/m <sup>3</sup> - TWA total dust	PEL	OSHA
Zinc Oxide	5.0 mg/m <sup>3</sup> - TWA fume	PEL	OSHA
Zinc Oxide	10.0 mg/m <sup>3</sup> - STEL fume	PEL	OSHA
Zinc Oxide	5.0 mg/m <sup>3</sup> - total dust	REL	NIOSH
Zinc Oxide	15.0 mg/m <sup>3</sup> - 15min ceiling	REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.  
 TLV: Threshold Limit Value over 8 hours of work.  
 REL: Recommended Exposure Limit  
 PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.  
 IDLH: Immediately Dangerous to Life or Health  
 WEEL: Workplace Environmental Exposure Levels  
 CEIL: Ceiling

**Personal Protection:**

**Eyes:** Wear chemical safety glasses or goggles.

**Inhalation:** Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.

**Skin:** Wear nitrile or rubber gloves, apron or lab coat.

**Other:** Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance, Physical State:</b>	Powdered solid	<b>pH Value:</b>	Not available
<b>Odor:</b>	Odorless	<b>Vapor Density:</b>	Not applicable
<b>Color:</b>	White	<b>Evaporation Rate:</b>	Not applicable
<b>Medium Particle Size:</b>	86 nm	<b>Flash Point:</b>	Not flammable
<b>Molecular Weight:</b>	81.38 g/mol	<b>Specific Gravity:</b>	5.606 g/cm <sup>3</sup> (water = 1)
<b>Specific Surface Area (BET):</b>	30-70 m <sup>2</sup> /g	<b>Solubility:</b>	

<b>Boiling Point:</b>	1975 °C (3587 °F)	Insoluble in water (0.00016 g/ 100 ml cold water); soluble in acids and bases
<b>Melting Point:</b>	1975 °C (3587 °F)	

## 10 STABILITY AND REACTIVITY

<b>Reactivity:</b>	Product is stable
<b>Chemical Stability:</b>	Product is stable
<b>Possibility of Hazardous Reactions:</b>	Will not occur
<b>Conditions to Avoid:</b>	Not available
<b>Hazardous Decomposition Products:</b>	None
<b>Incompatible Materials:</b>	Zinc oxide and chlorinated rubber react violently at 215°C. Contact with magnesium and linseed oil can cause violent reaction. Contact with strong acids may cause vigorous reaction. Contact with strong bases will form water and soluble zincates. Contact between zinc oxide and hydrogen fluoride, aluminum and hexachloroethane, zinc chloride or phosphoric acid, and water should be avoided.

## 11 TOXICOLOGICAL INFORMATION

<b>Acute Toxicity (LD50):</b>	240 mg/kg (intraperitoneal, rat), >8.4g/kg (oral, rat)
<b>Carcinogenicity:</b>	Not classified as carcinogenic material
<b>Teratogenicity:</b>	Zinc oxide at 2 to 38 mg/day had no effect on reproduction
<b>Mutagenicity:</b>	Zinc components have not been active in genetics assays
<b>Embryotoxicity:</b>	Not available
<b>Specific Target Organ Toxicity:</b>	Not available
<b>Reproductive Toxicity:</b>	Not available

## 12 ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	It is very toxic to aquatic organisms. Since it take a very long time for zinc oxide to break down, it may cause adverse long-term effects in the aquatic environment.
<b>Persistence and Degradability:</b>	Not available
<b>Bioaccumulative Potential:</b>	Not available
<b>Mobility in Soil:</b>	Not available
<b>PBT and vPvB Assessment:</b>	Not available

## 13 DISPOSAL CONSIDERATIONS

<b>Waste Residues:</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
<b>Product Containers:</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
The information in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods	

## 14 TRANSPORT INFORMATION

<b>DOT (Dept. of Transportation, USA):</b>	Not regulated
<b>TDG (Transportation of Dangerous Goods, Canada):</b>	Not regulated

IMDG (International Maritime Dangerous Goods): Number UN3077, hazard class 9  
IATA (International Air Transport Association): Number UN3077, hazard class 9  
ICAO (International Civil Aviation Organization): Not regulated

## 15 REGULATORY INFORMATION

TSCA Inventory Status: All ingredients are listed on the TSCA inventory  
DSCCL (EEC): EC # 215-222-5  
SARA 311/312: Listed (acute)  
SARA 313: Compounds: Zn, Pb  
U.S. EPA: Reg. No. 71645-3, PC Code: 088502  
U.S. TRI: Reproductive Toxin - Yes, Development Toxin - Yes

## 16 OTHER INFORMATION

**Revision Date:** 05-02-2015

**Compliance:** This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

**Disclaimer:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.