



**UNIPROMA CHEMICAL CO., LIMITED**

2-1101, 259 Greenland Avenue, Huaqiao,  
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Tel: 86-21-3422 4291, 3422 8743 Fax: 86-21-5480 1476  
Email: [info@uniproma.com](mailto:info@uniproma.com) Website: [www.uniproma.com](http://www.uniproma.com)

**TECHNICAL DATA SHEET**



1. Trade name:	Sunsafe-ZnOM
2. Other name:	Microfine Zinc Oxide
3. Molecular formula:	ZnO
4. Molecular weight:	81.37
5. CAS no. :	1314-13-2
6. Appearance:	White powder
7. Assay %:	99.7 min
8. Loss on drying %:	0.3 max
9. Residue of roasting %:	0.2 max
10. Average grain size nm:	15±5
11. PbO calculate by Pb %:	0.0005 max
12. MnO calculate by Mn %:	0.0001 max
13. CuO calculate by Cu %:	0.0002 max
14. Package:	25kgs net per cardboard drum.
<b>Application:</b>	
I Ultraviolet tanner.	



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**Sunsafe-ZnOM**

**Chemical name: Microfine Zinc Oxide**

**CAS no.: 13463-67-7**

**Batch no.: U20090701-1**

**Manufacturing date: 1 Jul, 2009**

**Expiry date: 30 Jun, 2011**

**Quantity: 1000kg**

Items	Specification	Results
1. Appearance:	White powder	Pass
2. Assay %:	99.7 min	99.75
3. Loss on drying %:	0.3 max	0.28
4. Residue of roasting %:	0.2 max	0.15
5. Average grain size nm:	15±5	Pass
6. PbO calculate by Pb %:	0.0005 max	Pass
7. MnO calculate by Mn %:	0.0001 max	1.1
8. CuO calculate by Cu %:	0.0002 max	Pass
<b>Conclusion:</b>	<b>Pass</b>	



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### MATERIAL SAFETY DATA SHEET

#### Section 1 - Chemical Product and Company Identification

**Trade name:** Sunsafe-ZnOM

**Product name:** Microfine zinc oxide

**Company identification:**

Uniproma Chemical Co., Limited

2-1101, 259 Greenland Avenue, Huaqiao, Kunshan, Suzhou, Jiangsu, 215332 China.

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#### Section 2 - Composition, Information on Ingredients

CAS No.:	Chemical Name:	%	EINECS No.:
1314-13-2	Zinc Oxide	99.7 min	215-222-5

**Hazard Symbols:** N

**Risk Phrases:** 50/53

#### Section 3 - Hazards Identification

##### EMERGENCY OVERVIEW

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The toxicological properties of this material have not been fully investigated.

**Potential Health Effects:**

**Eye:** Dust may cause mechanical irritation.

**Skin:** Prolonged and/or repeated contact may cause irritation and/or dermatitis.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Moderately toxic to humans by

**ingestion:** The toxicological properties of this substance have not been fully investigated.

**Inhalation:** Effects may be delayed. May cause respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. The toxicological properties of this substance have not been fully investigated. Can produce delayed pulmonary edema.

**Chronic:** Effects may be delayed.

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### Section 4 - First Aid Measure

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Treat symptomatically and supportively

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

### Section 7 - Handling and Storage

**Handling:** Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Use with adequate ventilation. Wash clothing before reuse. Avoid breathing dust.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

### Section 8 - Exposure Controls, Personal Protection

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**Engineering Controls:** Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### Exposure Limits

CAS# 1314-13-2:

**United States OSHA:** 5 mg/m<sup>3</sup> TWA (fume); 15 mg/m<sup>3</sup> TWA (total dust); 5 mg/m<sup>3</sup> TWA (respirable fraction)

**Belgium - TWA:** 10 mg/m<sup>3</sup> VLE (dust); 5 mg/m<sup>3</sup> VLE (fumes) Belgium - STEL: 10 mg/m<sup>3</sup> VLE (fumes)

**France - VME:** 5 mg/m<sup>3</sup> VME (fume); 10 mg/m<sup>3</sup> VME (dust)

**Germany:** 5 mg/m<sup>3</sup> TWA (respirable fraction, smoke)

**Japan:** 1 mg/m<sup>3</sup> OEL (respirable dust); 4 mg/m<sup>3</sup> OEL (total dust)

**Malaysia:** 5 mg/m<sup>3</sup> TWA (fume); 10 mg/m<sup>3</sup> TWA (dust)

**Netherlands:** 5 mg/m<sup>3</sup> MAC (smoke)

**Spain:** 5 mg/m<sup>3</sup> VLA-ED (vapor); 10 mg/m<sup>3</sup> VLA-ED (dust) Spain: 10 mg/m<sup>3</sup> VLA-EC (fume)

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** powder

**Color:** White

**Odor:** odorless

**Vapor Pressure:** Not available

**Viscosity:** Not available

**Boiling Point:** Not available

**Freezing/Melting Point:** 1975°C

**Autoignition Temperature:** Not applicable

**Flash Point:** Not applicable.

**Explosion Limits:**

**Lower:** Not available

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**Upper:** Not available

**Decomposition Temperature:**

**Solubility in water:** Negligible in water

**Specific Gravity/Density:** 5.6

**Molecular Formula:** ZnO

**Molecular Weight:** 81.37

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Dust generation.

**Incompatibilities with Other Materials:** Magnesium, chlorinated rubber.

**Hazardous Decomposition Products:** Toxic fumes of zinc oxide.

**Hazardous Polymerization:** Has not been reported.

### Section 11 - Toxicological Information

**RTECS#:** CAS# 1314-13-2: ZH4810000 ZH4817000

**LD50/LC50: RTECS:**

CAS# 1314-13-2: Draize test, rabbit, eye: 500 mg/24H Mild;

Draize test, rabbit, skin: 500 mg/24H Mild;

Inhalation, mouse: LC50 = 2500 mg/m<sup>3</sup>;

Oral, mouse: LD50 = 7950 mg/kg;

**Carcinogenicity:** Zinc oxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Other:** See actual entry in RTECS for complete information.

### Section 12 - Ecological Information

**Other:** No information available.

### Section 13 - Disposal Considerations

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Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

**Section 14 - Transport Information**

	IATA	IMO	RID/ADR
<b>Shipping Name:</b>	Not available	Not available	Not available
<b>Hazard Class:</b>			
<b>UN Number:</b>			
<b>Packing Group:</b>			

**Section 15 - Regulatory Information**

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:** N

**Risk Phrases:** R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:** S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**WGK (Water Danger/Protection) CAS# 1314-13-2:** 0

**Canada CAS# 1314-13-2** is listed on Canada's DSL List

**US Federal**

**TSCA CAS# 1314-13-2** is listed on the TSCA Inventory.

**Section 16 - Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

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