

## Safety Data Sheet

### HP1Z-COTE

Revision date : 2010/07/29  
Version: 1.0

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(51288139/SDS COS US/EN)

#### 1. Product and Company Identification

Use: cosmetic ingredient

Company

TKB Trading, LLC  
1101 9th Avenue  
Oakland, CA 94606 USA

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Chemical family:	agglomerates / aggregates of nanoparticles
INCI Name:	Zinc Oxide (and) Triethoxycaprylylsilane

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#### 2. Hazards Identification

Emergency overview

CAUTION:  
PROLONGED OR REPEATED EXPOSURE MAY CAUSE LUNG DAMAGE.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.  
The product is under certain conditions capable of dust explosion.  
Avoid contact with the skin, eyes and clothing.  
Avoid inhalation of dusts.  
Use with local exhaust ventilation.  
Wear a NIOSH-certified (or equivalent) particulate respirator.  
Wear safety glasses with side-shields.  
Wear chemical resistant protective gloves.  
Wear protective clothing.  
Eye wash fountains and safety showers must be easily accessible.

State of matter: solid  
Colour: white  
Odour: odourless

Potential health effects

**Primary routes of exposure:**  
Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

**Chronic toxicity:**

Repeated dose toxicity: The substance may cause damage to the lung after repeated inhalation of high doses.

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### 3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
1314-13-2	>= 96.0 - <= 99.0 %	Zinc oxide
2943-75-1	>= 1.0 - <= 4.0 %	Triethoxycaprylsilane

### 4. First-Aid Measures

**General advice:**

Remove contaminated clothing.

**If inhaled:**

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

**If on skin:**

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

**If in eyes:**

Flush with copious amounts of water for at least 15 minutes. If irritation develops, seek medical attention.

**If swallowed:**

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

**Note to physician**

Treatment: Symptomatic treatment (decontamination, vital functions).

### 5. Fire-Fighting Measures

Flammability: does not ignite

**Suitable extinguishing media:**

water spray, carbon dioxide, foam, dry powder

**Protective equipment for fire-fighting:**

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

**Further information:**

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

### 6. Accidental release measures

**Personal precautions:**

Ensure adequate ventilation. Wear appropriate respiratory protection.

**Environmental precautions:**

Do not discharge into drains/surface waters/groundwater.

**Cleanup:**

Dispose of absorbed material in accordance with regulations.

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

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### 7. Handling and Storage

#### Handling

##### **General advice:**

Avoid dust formation. Avoid aerosol formation. Don't mill the product in a dry form.

##### **Protection against fire and explosion:**

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Avoid dust formation.

#### Storage

##### **General advice:**

Keep container tightly closed in a cool, well-ventilated place.

### 8. Exposure Controls and Personal Protection

##### **Advice on system design:**

Provide local exhaust ventilation to control dust.

#### Personal protective equipment

##### **Respiratory protection:**

Wear a NIOSH-certified (or equivalent) particulate respirator.

##### **Hand protection:**

Chemical resistant protective gloves

##### **Eye protection:**

Safety glasses with side-shields.

##### **General safety and hygiene measures:**

Avoid contact with eyes. Avoid inhalation of dusts. Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and Chemical Properties

Form:	powder, solid	
Odour:	odourless	
Colour:	white	
pH value:	approx. 7	( 50 g/l, 20 °C) (as suspension)
Melting point:	approx. 1,970 °C	
Bulk density:	approx. 500 - 700 kg/m <sup>3</sup>	Literature data.
	500 kg/m <sup>3</sup>	
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:		not applicable
Particle size:		Contains agglomerates / aggregates of nanoparticles
Solubility in water:		insoluble
Other Information:	primary particle size < 200 nm	

### 10. Stability and Reactivity

Conditions to avoid:

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Avoid all sources of ignition: heat, sparks, open flame.

**Substances to avoid:**  
hydrogen peroxide, magnesium

**Hazardous reactions:**  
No hazardous reactions if stored and handled as prescribed/indicated.

**Thermal decomposition:**  
No decomposition if used as directed.

**Corrosion to metals:**  
Corrosive effects to metal are not anticipated.

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## 11. Toxicological information

### Acute toxicity

#### Oral:

*Information on: Zinc oxide*  
*Type of value: LD50*  
*Species: rat*  
*Value: > 5,000 mg/kg*  
*Literature data.*

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#### Inhalation:

*Information on: Zinc oxide*  
*Type of value: LC50*  
*Species: rat (male/female)*  
*Value: > 5.7 mg/l (BASF-Test)*  
*Exposure time: 4 h*

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#### Irritation / corrosion:

##### Skin:

*Information on: Zinc oxide*  
*Species: rabbit*  
*Result: non-irritant*  
*Literature data.*

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##### Eye:

*Information on: Zinc oxide*  
*Species: rabbit*  
*Result: non-irritant*

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##### Sensitization:

*Information on: Zinc oxide*  
*Guinea pig maximization test*  
*Species: guinea pig*  
*Result: Non-sensitizing.*  
*Method: OECD Guideline 406*

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##### Genetic toxicity

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*Information on: Zinc oxide*

*The substance was not mutagenic in bacteria. The substance was mutagenic in various cell culture test systems; however, these results could not be confirmed in tests with mammals.*

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## 12. Ecological Information

### Aquatic toxicity

*Information on: Zinc oxide*

*Assessment of aquatic toxicity:  
Very toxic (acute effect) to aquatic organisms.*

### Fish

*Information on: Zinc oxide*

*Acute:  
static  
Oncorhynchus mykiss/LC50 (96 h): 0.14 mg/l  
Literature data.*

### Aquatic invertebrates

*Information on: Zinc oxide*

*Acute:  
static  
Daphnia magna/EC50 (48 h): 2.2 mg/l*

### Aquatic plants

*Information on: Zinc oxide*

*Toxicity to aquatic plants:  
static  
green algae/EC50 (72 h): 0.17 mg/l*

### Microorganisms

*Information on: Zinc oxide*

*Toxicity to microorganisms:  
bacterium/EC0 (16 h): > 80,000 mg/l*

*Inorganic product which cannot be eliminated from water by biological purification processes.*

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## 13. Disposal considerations

### Waste disposal of substance:

Do not discharge into waterways or sewer systems without proper authorization. Dispose of in accordance with national, state and local regulations.

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## 14. Transport Information

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### Land transport USDOT

Not classified as a dangerous good under transport regulations

### Sea transport IMDG

Hazard class: 9  
Packing group: III  
ID number: UN 3077  
Hazard label: 9, EHSM  
Marine pollutant: YES  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains ZINC OXIDE)

### Air transport IATA/ICAO

Hazard class: 9  
Packing group: III  
ID number: UN 3077  
Hazard label: 9, EHSM  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(contains ZINC OXIDE)

## 15. Regulatory Information

### Federal Regulations

Registration status:  
Chemical TSCA, US released / listed

Cosmetic TSCA, US released / exempt

OSHA hazard category: Chronic target organ effects reported; ACGIH TLV established

EPCRA 311/312 (Hazard categories): Acute; Chronic

### EPCRA 313:

<u>CAS Number</u>	<u>Chemical name</u>
1314-13-2	Zinc oxide

### State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
MA, NJ, PA	1314-13-2	Zinc oxide

## 16. Other Information

### NFPA Hazard codes:

Health: 1 Fire: 1 Reactivity: 0 Special:

### HMIS III rating

Health: 1<sup>+</sup> Flammability: 1 Physical hazard: 0

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NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

**MSDS Prepared by:**  
Product Regulations

MSDS Prepared on: 2010/07/29

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