

Issue Date: 25-Aug-14

Version: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Zinc Oxide

Other Means of Identification

SDS# OBC-008

Synonyms Zinc white; Flowers of zinc; Calamine

Recommended Use of the Chemical and Restrictions on Use

Recommended Use For industrial use.

Details of the Supplier of the Safety Data Sheet

Manufacturer Address

Old Bridge Chemicals, Inc.
554 Waterworks Road
Old Bridge, NJ 08857

Emergency Telephone Number

Company Phone Number (732) 727-2225 (normal business hours)

(800) 275-3924 (24 hour number)

Emergency Telephone Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Classification

Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Signal Word

Warning

Hazard Statements

Harmful if swallowed
Harmful in contact with skin

Hazard Statements

Very toxic to aquatic life with long lasting effects.



Appearance: White powder

Physical State: Solid

Odor: Odorless

Precautionary Statements - Prevention

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not eat, drink or smoke when using this product
- Avoid release to the environment.

Precautionary Statements - Response

IF ON SKIN: Wash with plenty of soap and water

Take off contaminated clothing and wash it before reuse

Call a POISON CENTER or doctor/physician if you feel unwell

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

None

3. COMPOSITION/INFORMATION ON INGREDIENTS**Synonyms**

Zinc white; Flowers of zinc; Calamine

Chemical Name	CAS No	Weight-%
Zinc Oxide	1314-13-2	95 - 100

4. FIRST AID MEASURES**First Aid Measures**

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. Call a POISON CENTER or doctor/physician if you feel unwell.
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.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Promptly drink large quantities of milk, egg white, gelatin solution, or if these are not available, drink large quantities of water. Never give anything by mouth to an unconscious person.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms No specific symptoms.

Indication of any Immediate Medical Attention and Special Treatment Needed

No specific treatment.

Note to Physicians Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical, CO₂ or water spray.

Unsuitable Extinguishing Media None know.

Specific Hazards Arising from the Chemical Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous Combustion Products Zinc/zinc oxides.

Protective Equipment and Precautions for Firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment (see Section 8).

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Avoid the generation of dusts during clean-up. Wear NIOSH or MSHA approved respirator if dust will be generated. Dry sweep up, using a sweeping compound. Shovel spill material into plastic bags and seal with tape. Place in appropriate containers for disposal. Dispose of contents/container to an approved waste disposal plant. Prevent run off to storm sewers and ditches leading to natural waterways.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Store in original containers.

Packaging Materials Store in plastic or rubber.

Incompatible Materials Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
Zinc oxide 1314-13-2	TWA: 2 mg/m ³ 8 hours STEL: 10 mg/m ³ 15 minutes.	TWA: 5 mg/m ³ 8 hours - Fume TWA: 5 mg/m ³ 8 hours - Respirable fraction TWA: 15 mg/m ³ 8 hours. - Total dust	CEIL: 15 mg/m ³ - Dust TWA: 5 mg/m ³ 10 hours - Dust and fumes STEL: 10 mg/m ³ 15 minutes -Fume

Appropriate Engineering Controls

Engineering Controls Use process enclosures, local exhaust ventilation or other engineering controls to control airborne levels below recommended exposure limits. Wash hands before breaks and at the end of workday. Eyewash stations. Showers.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards.

Skin and Body Protection Handle with gloves. Avoid skin contact.

Respiratory Protection If necessary, wear an approved respirator for dusts or mists: MSHA/NIOSH approved number prefix TC-21C, or a NIOSH approved respirator with any R, P or HE filter. Alternatively, provide respiratory protection in accordance with Paragraph 1910.134 of Title 29 of the Code of Federal Regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on Basic Physical and Chemical Properties**

Physical State	Solid	Odor	Odorless
Appearance	Powder		
Color	White	Odor Threshold	Not determined
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	Not Applicable		
Melting Point/Freezing Point	1975°C / 3587°F		
Boiling Point/Boiling Range	Not determined		
Flash Point	Not determined		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Not determined		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	Not determined		
Molecular weight	81.37 g/mole		
Molecular formula	ZnO		
Specific Gravity	5.8		
Water Solubility	Slightly soluble in water		
Solubility in Other Solvents	Not determined		
Partition Coefficient	Not determined		
Autoignition Temperature	Not determined		

Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

The product is stable.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid inhalation of dust.
Ingestion	Harmful if swallowed.

Component Information

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Zinc oxide 1314-13-2	7,950 mg/kg (mouse)	> 2,000 mg/kg (Rat)	2,500 mg/m ³ (mouse)

Information on Physical, Chemical and Toxicological Effects

Symptoms	Please see section 4 of this SDS for symptoms.
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Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
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Numerical Measures of Toxicity

Not determined

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc oxide 1314-13-2	EC ₅₀ 0.042 mg/L Fresh water Algae - Pseudokirchneriella subcapitata - Exponential growth phase 72 hours	LC ₅₀ - Oncorhynchus mykiss (rainbow trout) - 1.1 mg/l - 96.0 h		EC ₅₀ - Daphnia magna (Water flea) - 0.098 mg/l - 48 h

Persistence and Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Not determined

Other Adverse Effects

Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

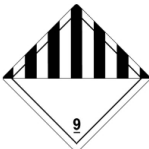
Disposal should be in accordance with applicable regional, national and local laws and regulations. With prior approval the material can be returned to the manufacturer.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Regulatory Information	ID Number	Proper Shipping Name	Hazard Class	Packing Group	Label(s)	RQ	Additional Information
US DOT	Not regulated for domestic transportation by truck or rail.						

Regulatory Information	ID Number	Proper Shipping Name	Hazard Class	Packing Group	Label(s)	RQ	Additional Information
IATA	UN3077	Environmentally hazardous substances, solid, n.o.s. (Zinc Oxide)	9	III			
IMDG	UN3077	Environmentally hazardous substances, solid, n.o.s. (Zinc Oxide)	9	III	 		Zinc oxide is a marine pollutant

15. REGULATORY INFORMATION

International Inventories

TSCA This material is listed.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substance RQ	CERCLA/SARA RQ	Reportable Quantity (RQ)
Zinc oxide 1314-13-2	Yes	N/A	N/A

SARA 311/312 Hazard Categories

Acute health hazard Yes

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Zinc oxide	1314-13-2	95 - 100	1.0

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc oxide 1314-13-2		X		

