



Safety Data Sheet

1. IDENTIFICATION

Product Name	Zinc Oxide
Recommended use	Fertilizer and Animal Feed
Supplier	Valudor Products, LLC. 179 Calle Magdalena, Suite 100 Encinitas, CA 92024 (760) 635-8500
Emergency Telephone	(800) 535-5053 (Infotrac)

2. HAZARD IDENTIFICATION

Classification

This product not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Label Elements

Not a hazardous substance or mixture

Hazards not other classified None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance

Chemical Name	Zinc Oxide
Synonym	NA
Formula	ZnO
Molecular weight	81.39 g/mol
Cas No.	1314-13-2
Concentration	99-100%

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Immediately rinse with plenty of water. Remove contact lenses, if present and easy to do so. Keep eye wide open while rinsing. Continue rinsing for 15 minutes. Call a doctor/physician if irritation persists.
Skin Contact	Wash off immediately with plenty of soap and water. Remove all contaminated clothes and shoes. If skin irritation persists, call a doctor/physician.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	Do not induce vomiting without medical advice. Rinse

mouth with water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed

Symptoms No information available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing Media Use any means suitable for extinguishing surrounding fire.

Specific Hazards Arising from the chemical

Hazardous combustion products Thermal decomposition can lead to the release of irritation or toxic gases and vapors.

Protective equipment and precautions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use personal protection recommended in Section 8. Ensure adequate ventilation.

Methods and materials for containment and cleanup

Methods for clean-up Sweep or vacuum up and place in an appropriate closed container. Keep unauthorized personnel away. Avoid generating dust.

Environmental Precautions Prevent entry into waterways or sewers.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not breathe dust. Avoid dust formation. Avoid contact with eyes, skin and clothing. Use personal protective equipment recommended in section 8. Remove and wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Store in a cool/low-temperature, well-ventilated, dry place. Keep containers closed and labeled when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH	NIOSH	OSHA
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Zinc Oxide 1314-13-2	TWA: 2 mg/m ³ STEL: 10 mg/m ³	REL: 5 mg/m ³ STEL: 10 mg/m ³	PEL: 15 mg/m ³ (total dust) PEL: 5 mg/m ³ (Respirable Fraction)
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Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Consider the potential hazards of this material, applicable exposure limits, job activities and other substances in the work place when designing controls and selecting personal protective equipment.

Personal Protective Equipment

Eye/face protection	Safety glasses are recommended in professional settings. If dust is generated use tightly fitted safety goggles.
Skin protection	Choose the appropriate protective clothing and gloves based on the tasks being performed to avoid exposure to skin. Wear protective gloves.
Respiratory protection	Not required under normal circumstances. If exposure limits are exceeded or if irritation or other symptoms are experienced use a NIOSH/MSHA approved respirator.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

9. PHYSICAL and CHEMICAL PROPERTIES

Appearance	White to Yellowish Powder
Physical state	Solid
Odor	Odorless
Odor threshold	No information available
pH	6.9-7.4
Melting point / freezing point	1975 C / 3587 F
Boiling point / Boiling range	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability	No information available
Flammability or explosive limits	
Upper	No information available
Lower	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	5.607
Solubility in water	0.004 g/l at 64 F
Partition coefficient	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available

10. STABILITY AND REACTIVITY

Reactivity	None known under normal conditions.
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Chemical stability	Stable under ordinary conditions of use and storage.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Avoid dust formation. Excessive heat
Incompatible materials	Strong oxidizing agents. Chlorinated compounds. Magnesium.
Hazardous decomposition products	Hazardous combustion can lead to the release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Skin contact	May cause skin irritation
Eye contact	May cause eye irritation
Inhalation	May cause irritation of respiratory tract
Ingestion	May be harmful if swallowed

Symptoms related to the physical chemical and toxicological characteristics

No information available

Delayed and immediate effects and also chronic effects form short and long-term exposure

Skin damage/irritation	Not classified
Eye damage/irritation	Not classified
Sensitization	Not classified
Mutagenic effects	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT – single exposure	Not classified
STOT – repeated exposure	Not classified
Aspiration hazard	Not classified

Acute Toxicity

Component information

Component	Cas-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Zinc Oxide	1314-13-2	> 5,000 mg/kg	> 2,000 mg/kg	> 5.7 mg/L/4hr.

12. ECOLOGICAL INFORMATION

Ecotoxicity Very toxic to aquatic life with long lasting effects. Should not be released to environment

Component	Freshwater Fish	Freshwater Algae	Water Flea
Zinc Oxide 1314-13-2	LC50: 0.25 mg/l – 96 hr (Morone saxatilis)	-	EC50: 0.098 mg/l – 48 hr (Daphnia magna)

Persistence and degradability No information available

Bioaccumulative potential No information available

Mobility in soil No information available

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Processing, use or contamination of this product may occur during product use. Accordingly, it is the responsibility of the user to determine the proper disposal methodologies. Consult the appropriate state, regional or local regulations to ensure complete and accurate classification. Dispose of contaminated packaging in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT Not regulated

Classification depends on package size, mode of transport and other factors. Always consult local regulations before shipment.

15. REGULATORY INFORMATION

International Inventories

TSCA	Listed
DSL	Listed

US Federal Regulations

TSCA section 12(b) Export Notification

Not regulated

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following compounds which are subject to the reporting requirements of the Act and 40 CFR, Part 372: Zinc compounds

SARA 311/312 Hazard Categorization

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Pressure	No
Reactivity	No

CERCLA/SARA 302 & 304

Product name: Zinc Oxide

Date of Issues: 10/30/2019

Section 302 & 304 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Not applicable

CWA (Clean Water Act)

Not applicable

US State Regulations

California Proposition 65

This product does not contain any proposition 65 chemicals

16. OTHER INFORMATION

NFPA Ratings Health: 1 Flammability: 0 Reactivity: 0

Creation Date: 10/30/2019

Revision Date:

Revision Number: 1.0

Revision Information Creation

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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 process, unless specified in the text.