



## SAFETY DATA SHEET OF ZINC DUST

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### SECTION I IDENTIFICATION OF THE HAZARDOUS CHEMICAL

<b>1) Chemical name</b>	<b>2) Other means of identification</b>	<b>3) Recommended use of the substance</b>
Zinc Powder	Zinc Powder	Industrial use
<b>4) Supplier or manufacturer data</b>		<b>5) SETIQ emergency number</b>
Azinsa Oxidos, S.A. de C.V. Fernando Montes de Oca, #21, Edif. B P2, San Nicolas Tlalnepantla, Estado de México C.P. 54030		55 59 15 88 (D.F.) 01 (800) 00 214 24 hours a day, 365 days a year. It provides technical and specific information by telephone to attend emergencies and incidents

### SECTION II HAZARD IDENTIFICATION

Not applicable	<b>1) Hazardous chemical classification</b>			
	<b>Section</b>	<b>Hazard Class</b>	<b>Class and category</b>	<b>Hazard Indication</b>
	4.1.C	Hazardous to the aquatic environment – acute danger	(Aquatic acute 1)	H400
	4.1.C	Dangerous for the aquatic environment – chronic danger	(Aquatic chronic 1)	H410
	<b>2) SIGNALLING ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS AND PRECAUTIONARY PICTOGRAMS</b> Identification: Zinc Powder Word of Warning: Attention Hazard indications: H400 + H410. Very toxic to aquatic organisms, with long-lasting harmful effects. Precautionary statements: P273.- Avoid its dispersion to the environment P391.- collect the discharges			
<b>3) OTHER HAZARDS WHICH DO NOT CONTRIBUTE TO THE CLASSIFICATION</b> No additional information				

### SECTION III COMPOSITION / COMPONENT INFORMATION

Identification of the substance	CAS No.	%	ACGIH (TLV-TWA) mg/m <sup>3</sup>	OSHA (PEL-TWA) mg/m <sup>3</sup>
Zinc Powder	7440-66-6	90 - 100	Unavailable	Unavailable

### SECTION IV. FIRST AID

#### 1) DESCRIPTION OF FIRST AID



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<b>Inhalation</b>	CALL A DOCTOR. If inhaled, remove from exposure to fresh air. If you do not breathe, give artificial respiration. If you have trouble breathing, give oxygen.
<b>Ingestion</b>	If it is ingested and the person is conscious, immediately supply large amounts of water. Get medical attention.
<b>Skin</b>	In case of contact, immediately wash with water / shower, if discomfort appears or in your case of doubt consult the doctor.
<b>Eyes</b>	In case of contact, immediately wash with plenty of water for at least 15 minutes. Immediate medical attention.
<b>2) MOST IMPORTANT SYMPTOMS AND EFFECTS, ACUTE OR CHRONIC</b>	
<b>Acute</b>	Inhalation can cause irritation of the upper respiratory system. Overexposure can cause irritation of the mucous membranes, mouth and throat, headache, fever, nausea and dizziness. Contact with the skin and eyes can cause irritation.
<b>Chronocicle</b>	None identified
<b>(3) INDICATION OF THE NEED FOR IMMEDIATE MEDICAL ATTENTION AND, WHERE APPROPRIATE, SPECIAL TREATMENT</b>	
<b>Notes for the Doctor</b>	Treat symptomatically. Contact a poison treatment specialist immediately if a large amount has been ingested or inhaled. In case of inhalation of decaying products in a fire, symptoms may appear later. The exposed person may need to be under medical surveillance for a period of 48 hours.
<b>Specific treatment:</b>	There is no specific treatment
<b>Protection of personnel:</b>	No action should be taken that poses a personal risk or without adequate training. It can be dangerous for the person providing help by giving mouth-to-mouth breathing. Wash contaminated clothing with water before removing them or wearing gloves.

### SECTION V. FIRE-FIGHTING MEASURES

#### 1) ADEQUATE MEANS OF EXTINCTION

Use a suitable extinguishing agent for the surrounding fire. Spray the area with water at a distance and cool until long after you have extinguished the fire / Immediately ventilate the place and avoid breathing gases  
Inadequate extinguishing means: Avoid the use of abundant water as this can produce pollution

#### (2) SPECIFIC HAZARDS OF THE HAZARDOUS CHEMICAL OR MIXTURE

The pressure may increase and the container may explode in case of heating or fire. This material is toxic to aquatic life with long-lasting effects. Firefighting water contaminated with this material must be prevented from entering waterways, drains or sewers.

Hazardous thermal decomposition products:

Carbon dioxide Carbon monoxide Nitrogen oxides Zinc oxide

Avoid breathing dust or smoke from materials that are burning. In case of inhalation of decaying products in a fire, symptoms may appear later.

#### (3) SPECIAL MEASURES TO BE FOLLOWED BY FIREFIGHTING GROUPS

In case of fire, quickly isolate the area, evacuating all people from the vicinity of the incident site. No action that poses a personal risk or without adequate training should be taken. Firefighting water contaminated with this material must be prevented from entering waterways, drains or sewers.

Firefighters should wear appropriate protective gear and self-contained breathing equipment with a full face mask operating in positive pressure mode. Fire protection clothing with chemicals



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### **VI. MEASURES TO BE TAKEN IN CASE OF ACCIDENTAL SPILLAGE OR LEAKAGE**

#### **1) PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE**

No action that poses a personal risk or without adequate training should be taken. Evacuate the surroundings. Don't let unnecessary and unprotected staff in. Do not touch or walk on the spilled material. Provide adequate ventilation. Do not breathe in dusts. Wear an appropriate breathing apparatus when the ventilation system is inadequate. Wear appropriate personal protective equipment.

If special garments are needed to manage the discharge, take into account the information contained in Section 8 regarding suitable and unsuitable materials.

Inform the local authorities in the event of environmental pollution. Also consult the information mentioned in "For non-emergency personnel".

#### **(2) ENVIRONMENTAL PRECAUTIONS**

Avoid the dispersion of spilled material, its contact with the soil, waterways, drainage pipes and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, flutes, soil or air).

Water polluting material. It can be harmful to the environment if released in large quantities. Collect the spill.

#### **3) METHODS AND MATERIALS FOR THE CONTAINMENT AND CLEANING OF SPILLS OR LEAKS**

Close the drains.

Pick up mechanically. Control of dusts and place in recent suitable for disposal

Wear appropriate personal protective equipment, avoid contact on skin, eyes, face and respiratory system.

### **SECTION VII. HANDLING AND STORAGE**

#### **1) PRECAUTIONS TO BE TAKEN TO ENSURE SAFE HANDLING**

- Ensure adequate ventilation
- Wash your hands before breaks and at the end of work
- Keep containers tightly closed, store in a dry place
- Observe compatible chemical storage

#### **(2) SECURE STORAGE CONDITIONS, INCLUDING ANY INCOMPATIBILITY**

Store in accordance with local regulations. Store in the original container protected from direct sunlight in a dry, cool and well-ventilated area, separated from incompatible materials: alkalis, food and drink. Keep the containers tightly closed and sealed until the time of use.

Open containers should be closed perfectly carefully and kept upright to prevent spills. Do not store in unlabeled containers.

Use appropriate safety packaging to avoid contamination of the environment. Fence storage facilities to prevent soil and water contamination in the event of a spill.

Recommended storage temperature: 15 to 25 °C Specific end uses; there is no information.

### **SECTION VIII. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

#### **1) PARAMETERS OF CONTROL (NOM-010-STPS-2014)**



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(As zinc oxide) PPT: 2 mg/m <sup>3</sup>	(Such as zinc oxide) CT o P: 10 mg/m <sup>3</sup>
<b>2) APPROPRIATE TECHNICAL CONTROLS</b>	
If this product contains ingredients of limited exposure, use process fencing, local ventilation, or other engineering controls to keep the worker's exposure below all limits. Recommended.	
<b>3) PERSONAL PROTECTIVE MEASURES , SUCH AS PERSONAL PROTECTIVE EQUIPMENT, PPE</b>	
<b>Ventilation</b>	Use general ventilation or local exhaust to meet TLV requirements.
<b>Respiratory</b>	Respiratory protection is necessary for: Dust formation. Particulate filter N-95 (MODEL 85110 3M) (filters at least 80% of atmospheric particles, color code: white) Features: Compatibility Exhalation valve Adjustable strap Clip nasal "M"
<b>Eye protection</b>	Safety glasses with side protections (goggles).
<b>Protective gloves</b>	Wear appropriate gloves . For special uses it is recommended to check with the supplier of the protective gloves, on the resistance of these against the chemical products mentioned above: Nitrile rubber, thickness > 0.11 mm, penetration time of the material with which the gloves are made > 480 minutes (Level 6)
<b>Other</b>	Environmental exposure control. Keeping the product away from drains and surface and groundwater. Preventive skin protectors (protective creams /ointments) are recommended

### SECTION IX. PHYSICAL AND CHEMICAL

<b>1) APPEARANCE (PHYSICAL CONDITION AND COLOR)</b> Grey Powder	<b>2) SMELL;</b> Toilet	<b>3) ODOR THRESHOLD ;</b> Unavailable	<b>4) PH;</b> 7.4
<b>(5) MELTING POINT/ FREEZING POINT;</b> Melting: 420 °C Freezing: Not available	<b>6) STARTING POINT AND BOILING RANGE;</b> 907 °C	<b>7) FLASH POINT ;</b> Not applicable	<b>8) EVAPORATION RATE;</b> Not applicable
<b>9) FLAMMABILITY (SOLID OR GAS);</b> Stabilized Flammable	<b>10) UPPER/LOWER LIMITS OF FLAMMABILITY OR EXPLOSIVENESS;</b> LIE; (250 g/m <sup>3</sup> ) LSE; NO DISPONIBLE	<b>11) VAPOUR PRESSURE;</b> 1 hPa a 487 °C	<b>12) VAPOUR DENSITY ;</b> Not applicable



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**(13) RELATIVE BULK DENSITY ;**

1,800 - 2,700 kg/m<sup>3</sup>

**(17) DECOMPOSITION TEMPERATURE ;**

Not applicable

**(14) SOLUBILITY(S);**

Hidrosolubilidad; insoluble

Unavailable

**(18) VISCOSITY;**

Not relevant (solid matter )

**(15) PARTITION COEFFICIENT : N-OCTANOL /WATER;**

500 °C

**(19) MOLECULAR WEIGHT**

81.37 g/mol

**(16) SPONTANEOUS IGNITION TEMPERATURE;**

**(20) OTHER RELEVANT DATA**

Not classified as explosive or oxidizing

**1) REACTIVITY**

**2) HAZARDOUS CHEMICAL STABILITY**

**3) POSSIBILITY OF DANGEROUS REACTIONS**

**(4) CONDITIONS TO BE AVOIDED**

**5) INCOMPATIBLE MATERIALS**

**6) DANGEROUS DECOMPOSITION PRODUCTS**

**Explosive dust capacity**

The material is stable under normal environmental conditions and under foreseeable conditions of temperature and pressure during storage and handling. Strong reactions with: Alkaline hydroxide (caustic alkali), Acids, Alkalis (bleach), Ammonium compounds, Azidides (azides), Chlorates, Nitrate, Peroxides, Metal catalyst , Cadmium, Hydrazine, Nitric acid, Hydrocarbons halogenated, Nitrated derivado, Sulphur, Oxidizers, => Explosive properties

Protect from moisture

Magnesium, strong acids and alkalis .

None identified.

### SECTION X. STABILITY AND REACTIVITY

### SECTION XI. TOXICOLOGICAL INFORMATION

**1) Primary entry route:**

Inhalation

**Attacked organs:**

Respiratory System

**2) SYMPTOMS RELATED TO PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS**

- In case of Ingestion; nausea and vomiting
- In case of contact with the eyes; the data is not available
- In case of inhalation; After inhaling dust can irritate the airways
- In case of contact with the skin; May cause irritation
- Other side effects: Fever, cardiac arrhythmia, circulatory collapse

**(3) IMMEDIATE AND DELAYED EFFECTS , AS WELL AS CHRONIC EFFECTS PRODUCED BY SHORT- AND LONG-TERM EXPOSURE**

It is not classified as a specific toxic in certain organs (single exposure). It is not classified as specific toxic in certain organs (repeated exposure).



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Shall not be classified as a germ cell mutagen, carcinogen or toxic to reproduction Shall not be classified as respiratory sensitizer or skin sensitiser

#### 4) NUMERICAL MEASURES OF TOXICITY (SUCH AS ACUTE TOXICITY ESTIMATES)

It shall not be classified as acute toxicity

#### SECTION XII. ECOTOXICOLOGICAL INFORMATION

##### 1) TOXICITY

<b>Result</b>	<b>Species</b>	<b>Exposition</b>	<b>Reference</b>
Acute EC50 >1000 mg/l fresh water	Fish – Daphnia magna	<b>48 hours</b>	Environmental Fate and Effects, US, EPA.
Acute CL50 1.1 mg/l fresh water	Fish – Oncorhynchus	<b>96 h</b>	Environmental Fate and Effects, US, EPA.
Acute CL50 >320 mg/l fresh water	Fish – Lepomis macrochirus	<b>96 h</b>	Environmental Fate and Effects, US, EPA.
Acute NOEC 0.026-0.075 mg/l fresh water	Fish – Jordanella floridae	<b>720</b>	luclid5
Acute CL50 0.136 mg/l fresh water	Aquatic plants	<b>72 p.m.</b>	

Very toxic to aquatic organisms. Toxic to aquatic organisms, with long-lasting harmful effects.

##### 2) PERSISTENCE AND BIODEGRADABILITY

*Methods for determining decay cannot be applied to inorganic materials.*

##### 3) BIOACCUMULATION POTENTIAL

<b>Name of the substance</b>	<b>No. Case</b>	<b>FBC</b>	<b>Log KOW</b>
Zinc Powder (stabilized)	7440-66-6	69,48	No disponible
Zinc Oxide	1314-13-2	250	<4

##### 4) MOBILITY ON THE GROUND

*Not available, No significant risks or critical effects recog*

##### 5) OTHER SIDE EFFECTS

Ozone reduction ;	Unavailable
Creation of photochemical ozone;	Unavailable
Endocrine disruptor ,	Unavailable
Global warming.	Unavailable



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### SECTION XIII. DELETION INFORMATION

#### 1) DISPOSAL METHODS

- Methods for waste treatment: Remove the product and its container as hazardous waste, Remove the contents in accordance with local, regional or national regulations.
- Do not throw waste down the drain, avoid its release into the environment
- It is a hazardous waste, only containers that have been approved can be used

### SECTION XIV. TRANSPORT INFORMATION

No. ONU	3077
Official Transportation Designation	Substance hazardous to the environment - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUIS N.O.S. (Zinc oxide )
Clase(s) relativas al transporte	Not applicable
Packing/packaging group, ir applicable	III (matter presenting a lower degree of dangerousness)
Environmental risks	Hazardous to the aquatic environment (zinc powder (stabilized))
Special precautions for the user	Environmental risk
Bulk transport in accordance with Annex II to MARPOL 73/78 and the IBC Code	In process

### SECTION XV. REGULATORY INFORMATION

Specific safety, health and environmental provisions for the hazardous chemicals or mixtures concerned	<p>Safety, health and environmental regulations and legislation specific to the substance or mixture Relevant European Union (EU) provisions</p> <ul style="list-style-type: none"><li>• Regulation 649/2012/EU on the export and import of hazardous chemicals (PIC); None of the components are included in the list.</li><li>• Regulation 1005/2009/EC on substances that deplete</li></ul>
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### SECTION XVI. OTHER INFORMATION INCLUDING INFORMATION RELATING TO THE PREPARATION AND UPDATING OF SAFETY DATA SHEETS

The date of preparation	In process	
	<b>ABBREVIATIONS</b>	
	CASE	Chemical Abstracts Service (unique identifier number without



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<p><b>Description of the abbreviations and acronyms used in the safety data sheet</b></p>		chemical significance)
	<b>Aquatic Acute</b>	dangerous to the aquatic environment - acute danger
	<b>Aquatic Chronic</b>	dangerous to the aquatic environment - chronic danger
	<b>FBC</b>	bioconcentration factor
	<b>INSHT</b>	Professional Exposure Limits for Chemical Agents, INSHT
	<b>log KOW</b>	n-octanol/water
	<b>MARPOL</b>	The International Convention for the Prevention of Pollution by ships
	<b>mPmB</b>	<i>Very persistent and very bioaccumulative</i>
	<b>SGA</b>	"Globally Harmonized System of Classification and Labelling of chemical substances" developed by the United Nations
	<b>VLA</b>	<i>Environmental limit value</i>
	<b>VLA-EC</b>	<i>Environmental limit value-short-term exposure</i>
<p><b>References of the basic documents and data sources used to prepare the security data sheet, these may be included in the security data sheet, if</b></p>	In process	

### Disclaimer

The Information in this safety data sheet corresponds to the true knowledge of our knowledge on the day of printing. The information must be points of support for the safe handling of products mentioned in this safety sheet for storage, processing, transport and disposal. Indications cannot be passed on to other products. As long as the product is mixed or made with other materials, the indications on this safety sheet cannot be transferred to the new agent.

**Reviewed**

Laboratory Coordinador

**Approved**

Quality Manager