Azinsa Óxidos	**CHEMICAL SAFETY DATA SHEET** **ZINC OXIDE UN 1435**	Code:	HSOZ1435
		Review:	5
		Revision date:	March, 2024
		Pages:	1 de 12

SECTION I HAZARDOUS CHEMICAL IDENTIFICATION

1) Chemical name	2) Other identification means	3) Recommended use of the substance
Zinc oxide	Zinc oxide	Industrial use

4) Supplier or manufacturer data	5) SETIQ emergency number
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

1) Hazardous chemical classification

Acute toxicity, category 1.
Hazard to the aquatic environment.

2) Signaling elements, including precautionary statements and precautionary pictograms

Identification: Zinc oxide
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
P501.- Dispose of contents and container in accordance with local regulations.

1) Other hazards which do not contribute to the classification
No additional information

SECTION III COMPOSITION / COMPONENT INFORMATION

Substance identification	CAS No.	%	ACGIH (TLV-TWA) mg/m^3	OSHA (PEL-TWA) mg/m^3

Zinc oxide (ZnO)	1314-13-2	90 - 100	10 mg/m^3	15 mg/m^3

SECTION IV. FIRST AID

1) First aid description

Inhalation	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.
Ingestion	If it is ingested and the person is conscious, immediately supply large amounts of water. Get medical attention.
Skin	In case of contact, immediately wash with water / shower, if discomfort appears or in your case of doubt consult the doctor.
Eyes	In case of contact, immediately wash with plenty of water for at least 15 minutes. Immediate medical attention.

2) Most important symptoms and effects, acute or chronic

Acute	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.
Chronicle	None identified

3) Indicación de la necesidad de recibir atención médica inmediata y, en su caso, de tratamiento especial

Notes for the doctor	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.
Specific treatment	There is no specific treatment

Personnel protection	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.

SECTION 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

Spills: Product hazardous to the environment, in case of large spills or if the product contaminates lakes, rivers or sewers, inform the competent authorities, according to local laws.

Clean-up: Wear personal protective equipment. Clean up spillage so that it is not dispersed into the air place in a suitable container. Dispose in accordance with applicable regulations. The spill area can be cleaned up with water, to avoid spillage into a river or water reservoir.

SECTION VII. HANDLING AND STORAGE

1) Precautions to be taken to ensure safe handling

Protective Measures: Wear appropriate personal protective equipment (See Section 8). Do not get in eyes on skin or clothing. Do not breathe vapors or mists. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only under conditions of adequate ventilation or fitted with a suitable respirator. Keep in original container or approved alternative container made of a compatible material and keep tightly closed when not in use. Empty containers retain product residues and may be hazardous. Do not reuse container.

General Workplace Hygiene Information: Eating, drinking or smoking should be prohibited in areas where this product is handled, stored or treated. Workers should wash hands and face before eating, drinking or smoking.

Remove protective equipment and contaminated clothing before entering eating areas. Refer to Section 8 for additional hygienic measures.

2) Conditions for safe storage, including any incompatibilities

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

Opened containers should be tightly closed with care and kept upright to avoid spillage. 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 case of spillage.

SECTION VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

1) Control parameters (NOM-010-STPS-2014)

(As zinc oxide) PPT: 2 mg/m^3	**(Such as zinc oxide) CT o P:** 10 mg/m^3

2) Appropriate technical controls

If this product contains limited exposure ingredients, use process enclosures, local ventilation, or other engineering controls to keep worker exposure below all recommended limits.

3) Individual protective measures, such as personal protective equipment, PPE, etc.

Ventilation	Use general ventilation or local exhaust to meet TLV requirements.
Respiratory	If concentrations exceed TLV limits, respiratory protection is required. At concentrations up to 75 ppm, a high efficiency particulate respirator is recommended. If the concentration exceeds the respirator's capacity, a self-contained breathing apparatus is recommended.
Eye protection	Safety goggles with side shields.
Protective gloves	Wear suitable gloves.

	For special uses it is recommended to check with the supplier of the protective gloves for their resistance against the above mentioned chemicals: Nitrile rubber, thickness > 0.11 mm, breakthrough time of the material from which the gloves are made > 480 minutes (Level 6).
Other	None

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES

1) Appearance (physical state and color): White powder	**2) Odor:** Odorless	**3) Odor threshold:** Not available	**4) pH:** 7.4
5) Melting point/freezing point: Melting: 1975 °C Freezing: Not available	**6) Initial point and boiling range:** Not applicable	**7) Flash point:** Not applicable	**8) Evaporation rate:** Not applicable
9) Flammability (solid or gas): Not applicable	**10) Upper/lower flammability or explosivity limits:** LS: Not applicable LI: Not applicable	**11) Vapor pressure:** Not applicable	**12) Vapor density:** Not applicable

13) Relative bulk density: 4.0 - 6.0 g/pulg^3	**14) Solubility:** In water: Negligible	**15) Partition coefficient: N-octanol/water:** Not available	**16) Spontaneous ignition temperature:** Not applicable
17) Decomposition temperature: Not applicable	**18) Viscosity:** Not relevant (solid matter)	**19) Molecular weight:** 81.37 g/mol	**20) Other relevant information:** None

SECTION X. STABILITY AND REACTIVITY

1) Reactivity	Hazardous decomposition products.
2) Hazardous chemical stability	Chemical substance stable under normal environmental conditions of pressure and temperature.
3) Possibility of dangerous reactions	Chemical substance does NOT react or polymerize.
4) Conditions to be avoided	Protect against moisture.
5) Incompatible materials	Strong magnesium and acid.
6) Hazardous decomposition products	None identified

SECTION XI. TOXICOLOGICAL INFORMATION

1) Primary route of entry:	Organs attacked:
Inhalation	Respiratory system

2) Symptoms related to physical, chemical and toxicological characteristics.

- In case of ingestion; nausea and vomiting.
- In case of eye contact; no data available.
- In case of inhalation; After inhalation of dust may irritate the respiratory tract.
- In case of skin contact; May cause irritation.

3) Immediate and delayed effects, as well as chronic effects produced by short-term exposure.

Not classified as specific target organ toxicant (single exposure).
Not classified as specific target organ toxicant (repeated exposure).
Not to be classified as a germ cell mutagen, carcinogen or reproductive toxicant.
Not to be classified as a respiratory sensitizer or skin sensitizer.
There is no experimental or epidemiological evidence to justify the classification of zinc compounds as having carcinogenic activity.

4) Numerical measures of toxicity (such as acute toxicity estimates).

LD 50 oral (ingestion rat):	LDS 50 dermis (Contact):
5000 mg/kg Acute oral toxicity	Not applicable

SECTION XII. ECOTOXICOLOGICAL INFORMATION

1) Toxicity

Result	Specie	Exposition	Reference
Acute EC50 >1000 mg/l fresh water	Fish - Daphnia magna	48 h	Environmental Fate and Effects, US, EPA.
Acute LC50 1.1 mg/l fresh water	Fish – Oncorhynchu	96 h	Environmental Fate and Effects, US, EPA.

Acute LC50 >320 mg/l fresh water	Fish – Lepomis macrochirus	96 h	Environmental Fate and Effects, US, EPA.
Acute NOEC 0.026-0.075 mg/l fresh water	Fish – Jordanella floridae	720	Iuclid5
Acute LC50 0.136 mg/l fresh water	Aquatic plants	72 h	Environmental Fate and Effects, US, EPA.

Highly toxic to aquatic organisms. Toxic to aquatic life with long lasting effects.

2) Persistence and biodegradability

There are no known significant hazards or critical effects.

3) Bioaccumulation potential

There are no known significant hazards or critical effects.

4) Mobility on the ground

Not available, No significant risks or critical effects are recognized.

5) Other adverse effects

Ozone depletion	Not available.
Photochemical ozone creation	Not available.
Endocrine disruptor	Not available.
Global warming	Not available.

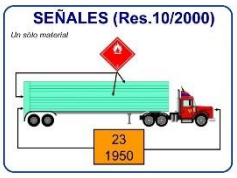
SECTION XIII. DISPOSAL INFORMATION

1) Disposal methods

Avoid or minimize waste generation whenever possible. Waste should not be flushed down the sewer untreated unless consistent with the requirements of all authorities having jurisdiction. Avoid dispersal of spilled material, contact with soil, waterways, drainage pipes and sewers.

Both leftover product and empty containers should be disposed of according to current legislation on Environmental Protection and in particular on Hazardous Waste (National Law No. 24.051 and its regulations). The waste should be classified and disposed of by an authorized company.
Dispose of the waste product and its containers with all possible precautions. Precautions should be taken when handling emptied containers that have not been cleaned or rinsed. Empty containers or liners may retain product residues. Avoid or minimize waste generation where possible. Residual containers should be recycled. Incineration or burial should only be considered when recycling is not feasible. Ensure that the container is completely empty before recycling.

SECTION XIV. TRANSPORT INFORMATION



ONU Number	3077
Official transport designation	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUIS N.O.S. (Óxido de zinc)
Class(es) relating to transportation	
Packaging group/packaging, if applicable	III (material presenting a lower degree of hazard).
Environmental risks	Hazardous to the aquatic environment (zinc powder (stabilized).
Special precautions for the user	Environmental risk.
Bulk transport according to MARPOL 73/78 Annex II and IBC Code	In process

SECTION XV. REGULATORY INFORMATION

Specific safety, health and environmental provisions for the hazardous chemicals or mixtures concerned.	Safety, health and environmental regulations and legislation specific to the substance or mixture Relevant European Union (EU) provisions. - Regulation 649/2012/EU on the export and import of dangerous chemicals (PIC); None of the components are listed. - Regulation 1005/2009/EC on substances that deplete the ozone layer; None of the components are included in the list.

SECTION XVI. OTHER INFORMATION INCLUDING THOSE RELATING TO THE PREPARATION AND UPDATING OF SAFETY DATA SHEETS

Preparation date	In process	
Description of abbreviations and acronyms used in the safety data sheet.	**Abreviaturas**	
	CAS	Chemical Abstracts Service.
	Aquatic Acute	Hazardous to the aquatic environment - acute hazard.
	Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard.
	FBC	Bioconcentration factor.
	INSHT	Occupational Exposure Limits for Chemical Agents, INSHT.
	log KOW	n-octanol/water.
	MARPOL	The International Convention for the Prevention of Pollution from Ships.
	mPmB	Very persistent and highly bioaccumulative
	SGA	"Globally Harmonized System of Classification and Labeling of Chemicals" developed by the United Nations.
	VLA	Environmental limit value.
	VLA-EC	Environmental limit value-short-term exposure.
References to the basic documents and data sources used to prepare the safety data sheet may be included in this section, if deemed necessary.	In process	

Disclaimer clause

The information in this safety data sheet corresponds to the best of our knowledge at the time of printing. The information is intended as a guideline for safe handling of the products mentioned in this safety data sheet for storage, processing, transport and disposal. The information may not be transferred to other products. As long as the product is mixed or processed with other materials, the information in this safety data sheet cannot be transferred to the new agent.

Reviewed	**Approved**
Laboratory Coordinator	Quality Manager