



**SAFETY DATA SHEET**

Date Previous Revision: 29.07.2011  
 Date of this revision: 22.07.2013

Revision: Number: 6

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**1. CHEMICAL PRODUCT – COMPANY IDENTIFICATION.**

**Product name:** Zinc Oxide

**Common / Trade names:** Zinc Oxide, Oxzinal.  
Zinc Oxide, Máximo.

**Application:** Zinc oxide is widely used as an additive to many products in the ceramic, rubber, paints, animal feed, zinc compounds, pharmaceuticals, industries, etc...

**Company Identification:** Zinc Nacional, S.A.  
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**Emergency telephone:** +52 (81) 8345-4078.  
Note: Phone available only during business hours.

**2. COMPOSITION AND INFORMATION ON INGREDIENTS.**

Component	CAS Number	EC Number	Trade names of zinc oxide products		
			Oxzinal 800 to 821	Máximo 318, 414, 417W, 730, 819 to 996	Máximo 720, 721 and 725
Zinc Oxide, ZnO	1314-13-2	215-222-5	> 99.6 %	> 99.0 %	> 89.6%
Appearance and Odor	NA	NA	White powder, odorless	Creamy white powder, odorless	Brown powder, odorless

**3. HAZARDS IDENTIFICATION**

**Inhalation:** May cause respiratory tract irritation. Symptoms may include coughing and wheezing. Inhalation can cause flu-like symptoms (a clinical picture known as smelter fever). Lasts between 24 and 48 hours and is characterized by fever, muscle pain, headache and dry throat and mouth.

**Accidental ingestion:** Important oral ingestion can cause gastrointestinal tract irritation.

**Skin contact:** Not considered a health hazard by skin contact. Prolonged or repeated contact can cause moderate dermatitis in some individuals.

**Eye contact:** Not considered a health risk, although in cases of mass influx may cause irritation and burning eyes.

**4. FIRST-AID MEASURES.**

**Inhalation:** Move into fresh air and keep at rest. If the person is not breathing provide artificial respiration, if breathing is difficult, give oxygen. Get medical attention.

**Ingestion:** Ingestion of large quantities, get medical attention, never induce vomiting unless indicated by medical personnel.

**Skin contact:** Wash with soap and water and launder clothing before re-use. If irritation occurs get medical attention.

**Eye contact:** Immediately flush with plenty of water for up to 15 minutes holding the eyelids open. Get medical attention.

**5. FIRE-FIGHTING MEASURES.**

<b>Flammability:</b> Not flammable	<b>Flash point:</b> Not applicable.
<b>Autoignition:</b> Not applicable.	<b>Flammable Limit:</b> Not applicable.
<b>Extinguishing Media:</b> Use media appropriate to the environment.	<b>Fighting Procedures:</b> In case of fire in the environment, use protective equipment and self-protective clothing to prevent contact with skin and eyes.
<b>Risks:</b> Emits toxic fumes.	

**6. ACCIDENTAL RELEASE MEASURES.**

**Personal precautions:** Use personal protective equipment (see paragraph 8).

**Precautions to protect the environment:** Product dangerous to the environment in case of large spills or when the product contaminates lakes, rivers or sewers, inform appropriate authorities in accordance with local laws.

**Clean Methods:** Clean spills in a way that does not disperse dust into the air and place in suitable container. Dispose according to regulations.

The disposal area can be cleaned with water, but prevent it from spilling into a river or reservoir.

**7. HANDLING AND STORAGE.**

**Precautions for safe handling.**

No special handling required, we recommend the following general measures:

- Use personal protective equipment (see paragraph 8).
- Wash after handling.

**Conditions for safe storage.**

No special storage measures required; we recommend the following general measures:

- Store in a dry place.
- Do not expose to sun, heat or incompatible substances (see paragraph 10).
- Product life, Unlimited if tightly closed and dry.
- Place away from sources of ignition.
- Do not store with food.

**Specific uses.**

There are no other recommendations for the use of this product other than those already indicated.

**8. EXPOSURE CONTROL / PERSONAL PROTECTION.**

**Exposures limit values.**

Applicable specific control parameters for the job.

Name	VLA-ED*	VLA-EC*
Zinc Oxide	mg/m <sup>3</sup>	mg/m <sup>3</sup>
Respirable fraction	5	10

Information obtained from the Permissible Exposure Limit (PEL) of OSHA.



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**Exposure Controls**

Local and general ventilation, to ensure that concentration does not exceed the limits for occupational exposure. Consider enclosing the process. Ensuring control of process conditions. Replacement air supply to supply air continuously removed. Provide showers and eyewash stations.

**Personal Protection:**

	<b>Eye Protection:</b> Wear approved safety goggles.
	<b>Hand protection:</b> Rubber gloves are recommended. Wash hands and face before eating, drinking or smoking.
	<b>Respiratory Equipment:</b> If ventilation is insufficient, suitable respiratory protection must be provided.
	<b>Other protection:</b> Self contained breathing apparatus and overalls.
	<b>Ventilation:</b> Ventilate the premises to maintain exposure below limits.

**9. PHYSICAL AND CHEMICAL PROPERTIES.**

- **Odor:** Odorless
- **Appearance:** White powder, creamy white or brown.
- **Molecular weight (gr/mol):** 81.39
- **Melting point (°C):** 1970 - 1975 °C
- **Boiling point:** Not applicable.
- **Specific Gravity:** 5.606
- **Solubility in water:** Insoluble
- **Solubility:** Acids, ammonia, ammonium carbonate and alkali.
- **Explosive Properties:** Not applicable.
- **Oxidizing properties:** Not applicable.
- **Vapor pressure:** Not applicable.

**10. STABILITY AND REACTIVITY.**

- **Reactivity:** Stable under normal conditions.
- **Stability:** Stable under normal conditions.
- **Conditions to avoid:** None
- **Materials to avoid:** Strong alkalis. Strong acids
- **Hazardous decomposition products:** None.

**11. TOXICOLOGICAL INFORMATION.**

- A) **Toxicity Data:**  
 LD50 (oral, mouse): 7950 mg / kg. LC50 (inhalation, mouse): 2500 mg/m3
- B) **Chronic effects:**  
 No know significant effects or critical hazards. There is no information that prolonged or repeated exposure aggravates medical conditions.
- C) **Acute effects:**  
 Powder or zinc oxide fumes can irritate the respiratory tract. Prolonged exposure of the skin may lead to dermatitis. Exposure to high levels of dust or smoke can lead to fever, muscle pain, headache and dry throat and mouth.

**12. ECOLOGICAL INFORMATION**

No data available

**13. DISPOSAL INFORMATION.**

Avoid or minimize the generation of waste wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products must meet the requirements of environmental protection legislation and waste disposal and the requirements of local authorities.

**14. TRANSPORT INFORMATION.**

**DOT Classification:** Not a DOT controlled material

**Identification:** Not applicable.

**Special Provisions for transport:** Not applicable.

**15. REGULATORY INFORMATION**

United States. Illinois toxic substances disclosure to employee act: Zinc oxide  
 Rhode Island RTK hazardous substances: Zinc oxide  
 Pennsylvania RTK: Zinc oxide  
 Minnesota: Zinc oxide  
 Massachusetts RTK: Zinc oxide  
 New Jersey: Zinc oxide  
 California Director's List of Hazardous Substances: Zinc oxide  
 TSCA 8(b) inventory: Zinc oxide

Canada. WHMIS Classification – not controlled  
 Domestic substance list (DSL) – listed.

**Other Classifications:**

United States. Hazardous Materials Identification System, (HMIS)

Health 1	Fire 0	Reactivity 0	Personal Protection E
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**16. OTHER INFORMATION.**

This information relates to the specific product designated and may not be valid for such product used in combination with any other materials or in any other processes. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement. Customers are responsible for compliance with local, state and federal regulations that may pertinent in the storage, application and disposal of this product.