











SAFETY DATA SHEET

Product	Personal Protection Elements			
ZINCODUR	 Gloves	 Overall	 Safety Goggles	 Maintenance-free respirator

SECTION 1. PRODUCT IDENTIFICATION	
GHS Product identifier	ZINCODUR
Other means of identification	
Recommended use of the chemical and restrictions on use In the agricultural industry as fertilizer.	EMERGENCY PHONE NUMBER 24 HS (0291) 459-8188 - (0291) 459-8008 - Security (0291) 154-050421 – Safety Health (0291) 459-8196 – Medical Service
SUPPLIER Produquímica Industria y Comercio SA. Alberto Soares Sampaio, 2544. Capuava, SP - CEP 09380-000 Brasil	DISTRIBUTOR Profertil S.A. Planta de Fertilizantes, Puerto de Ing. White – Zona Cangrejales, Bahía Blanca, Argentina

SECTION 2. HAZARD IDENTIFICATION							
Classification of the substance	Classification		Labeled				Hazard indication code
	Hazard class	Hazard category	Pictogram		Signal word	Hazard indication	
			GHS	Model Regulations of the UN			
	Dangerous substance for the aquatic environment	Acute 1			Warning	Very toxic for aquatic organisms	
Chronic 1		Very toxic for aquatic organisms with lasting harmful effects					H410
Reproductive toxicity	1A		Not required	Danger	May harm the fertility or damage the foetus.	H360	
Specific target organ toxicity (repeated exposure)	2		Not required	Warning	May provoke organ injuries due to prologed repeated exposition	H373	

Classification of the substance	Classification		Labeled				Hazard indication code
	Hazard class	Hazard category	Pictogram		Signal word	Hazard indication	
			GHS	Model Regulations of the UN			
Classification of the substance	Acute Oral Toxicity	4		Not required	Warning	Harmful in case of ingestion	H302
	Acute Toxicity through inhalation	4				Harmful in case of inhalation	H332
	Skin corrosion/irritation	2				Not required	Warning
	Substances and mixtures that react spontaneously	Type E and F			Warning	May ignite when heated	H242
	Summary Causes skin irritation. May be harmful if inhaled or swallowed. It can impair fertility or harm the fetus. May damage certain organs by prolonged or repeated exposure. It can catch fire when heated. It has acute and chronic toxic effects for aquatic organisms.						
SECTION 3. INFORMATION ON INGREDIENTS							
Composition: Mixture			Comercialization: Bines – Granel				
Common name	Synonyms of the Substance	CAS number	Chemical family	Formula	Composition (% by weight)		
Zinc Oxide + Zinc sulphate	Zinc Monoxide	1314-13-2	Inorganic salt	ZnO+	Minimum 88		
Total sulphur	-	7704-34-9	No metals	S	Less than 15		
SECTION 4. FIRST-AID MEASURES							
Contact with skin	IN CASE OF SKIN CONTACT, wash with plenty of soap and water. Specific treatment is needed (see Reference to first aid instructions on this label) In case of skin irritation, consult a doctor. Remove contaminated clothing and wash before reuse.						
Inhalation	IN CASE OF INHALATION, transport the victim outside and keep them at rest in a position comfortable for breathing. Call a poison control center or a doctor in case of discomfort						
Ingestion	IN CASE OF INGESTION, Rinse mouth, Call a poison control center or a doctor in case of discomfort.						
Notes for the doctor	Not applicable.						

<p>Prudence advice Prevention</p>	<p>Request special instructions before use - Do not handle the substance before reading and understanding the safety instructions - Use mandatory personal protective equipment. Do not breathe particulate matter. Use only outdoors or well ventilated places Do not eat, drink or smoke during use - Wash thoroughly after handling. Wear gloves/clothing/safety goggles/protective mask.</p>
<p>SECTION 5. FIRE-FIGHTING MEASURES</p>	
<p>Suitable extinguishing media</p>	<p>In case of fire use suitable means to the environment.</p>
<p>Specific hazards arising from the chemical</p>	<p>Not applicable.</p>
<p>Special protective actions for fire- fighters</p>	<p>In case of fumes or gases, firefighters should wear gloves, goggles, respiratory protection and full protective clothing during extinction. Contain the water used in the fire fighting, preventing it from reaching drains or water courses and collecting it for later treatment.</p>
<p>SECTION 6. ACCIDENTAL RELEASE MEASURES</p>	
<p>Personal precautions, protective equipment and emergency procedures</p>	<p>For people who are not part of the emergency control: Withdraw from the site and avoid skin contact and inhalation. For personnel who will control the emergency: Use the Personal Protective equipment described in Section 8. Do not touch spilled material without protection. If the spill is outside, avoid turning against the wind, if it is inside, ventilate the enclosed spaces before entering. Place the recovered product in appropriate containers and identify it with the corresponding signage</p>
<p>Environmental precautions</p>	<p>Avoid spillage of product on the environment, especially water courses, drains, sewers, canals. etc. When possible, prepare a dike or containment for spilled material. Contact local environmental authorities.</p>
<p>Methods and materials for containment and cleaning up</p>	<p>Large spills: When possible, prepare a dike or barrier for spilled material and cover with a plastic sheet to prevent dispersion. To recover, use mechanical means (such as: shovels and buckets) and place in containers. After removing the product, verify the cleanliness of the area. Small spills: collect material directly with mechanical means. Check the cleanliness of the spilled surface. Never return spilled product to original container for reuse. For disposal information, see section 13.</p>



SECTION 7. HANDLING AND STORAGE	
Precautions for safe handling	<p>Prevention of worker exposure: Product handling must be done with the personal protection elements mentioned in Section 8.</p> <p>Fire and explosion prevention: Not applicable.</p> <p>Precautions and guidelines for safe handling: Do not handle the product without having read and understood the safety instructions. When handling do it wisely. Open the package carefully to prevent the material from spreading. The work area should be limited to people who use adequate safety equipment when handling the product. Avoid contact of the product with the skin and eyes. Do not breathe or ingest the product. During handling outside, do it with your back to the wind, inside premises, keep the premises ventilated. Do not throw waste down the drain</p> <p>Hygiene measures</p> <p>Suitable: Keep the storage location always tidy, ventilated and marked., Wash thoroughly after handling, hands, face, forearms and where there are more exposed areas.</p> <p>Inappropriate: eating, drinking or smoking in the workplace Remove clothing and personal protective items and clean yourself before eating food, wash your hands before smoking. Do not smoke in the presence of product</p>
Conditions for safe storage	<p>Appropriate conditions: Keep in tightly closed original containers, stored in clean, tidy, ventilated and locked areas. Conditions to avoid, including possible incompatibilities: physical, moisture, heat and incompatible impacts.</p> <p>Packing materials</p> <p>Recommendations: Not available.</p> <p>Inadequate: Not available.</p> <p>Other information: Store in a dry and ventilated place and stay away from incompatible materials. Keep out of the reach of children. Stay away from food, drinks. If regulations exist, store in accordance with local or regional regulations.</p>
SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION	
Control parameters	<p>Occupational exposure limits: There are no known occupational exposure limits for the mixture. For zinc oxide, (PNEOF) CMP 10 mg/m³ for inhalable particles and 3 mg/m³ for respirable Resol SRT 295/03. 5 mg/m³ (TWA) per respirable fraction - OSHA/PEL 2 mg/m³ (TWA) - ACGIH/TLV</p> <p>Biological indicators: Not available.</p> <p>Other limits and values: Not applicable.</p>
Appropriate engineering controls	<p>It is recommended to manipulate in open places facing away from the wind or in enclosed places ensuring local and / or general ventilation system to protect exposed employees. Provide station for eye wash.</p>

Individual protection measures, personal protective equipment (PPEs)	<p>Wear safety glasses.</p> <p>To avoid skin contact, wear long-sleeved clothing that protects the limbs, bodysuit and/or PVC apron; and PVC or neoprene gloves.</p> <p>In case of closed sites/poor air renewal, work with large amounts of exposed material, use PVC/neoprene gloves, waterproof cape footwear and approved respiratory protection for dusts all the time of exposure. Frequently rule out PPEs that have deteriorated.</p>
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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance		Physical state: Solid, Granulated Colour: Brown	
Odour	Odourless	Vapour pressure	Undetermined
Odour threshold	Not available	Vapour density	Not applicable
pH	Not available	Solubility	Undetermined
Melting point / freezing point	Undetermined	Partition coefficient: n-octanol/water	Undetermined
Initial boiling point and boiling range	Undetermined	Auto-ignition temperature	Undetermined
Flash point	Undetermined	Decomposition temperature	Undetermined
Evaporation rate	Undetermined	Relative density	Not available
Flammability	Not applicable	Apparent density	Not available
Upper/lower flammability or explosive limits	Not applicable	Viscosity	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	The product is stable and non-reactive under normal conditions of use, storage and transport.
Possibility of hazardous reactions	Not available
Conditions to be avoided	For the Zinc oxide high temperatures are recommended.
Incompatible materials	For the Zinc oxide, contact with Magnesium and chlorated rubber is to be avoided.
Hazardous decomposition products	For the Zinc oxide, toxic fumes may be released.
Special Observations	Does not have

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity by component of the mixture, routes of entry and kind of test

Zinc Oxide	<p>-<i>Dermic</i>: DL₅₀: 2000 mg/kg (- Rat – 24 hs). Not classified</p> <p>-<i>Oral</i>: DL₅₀: 2000 - 5000 mg/kg (-Rat/Mouse-). Practically non toxic</p> <p>-<i>Inhalation</i>: CL₅₀: 1,79- 5.7 mg/l,(- Rat - 4 Hours). Pactly non toxic</p>
Sulphur	<p>-<i>Dermic</i>: DL₅₀: 2000 mg/kg (- Rat – 24 hs). Not classified</p> <p>-<i>Oral</i>: DL₅₀: 2000 - 12448 mg/kg (-Rat-). Not Classified</p> <p>-<i>Inhalation</i>: CL₅₀: 5,4- 5.74 mg/l,(- Rat - 4 Hours). Not classified</p>

Skin corrosion/irritation	It causes skin irritation.		
Serious eye damage/irritation	Not described		
Acute toxicity	Harmful if ingested or inhaled.		
Respiratory or skin sensitization	Not described		
Germ cell mutagenicity	Unclassified.		
Carcinogenicity	Unclassified.		
Reproductive toxicity	It may damage fertility or harm the foetus.		
Specific target organ toxicity –single exposure	Not described		
Specific target organ toxicity –repeated exposure	Might cause harm to the organs due to long, repetitive expositions.		
Aspiration hazard	Harmful.		
Teratogenicity	Avoid contact during pregnancy / lactation. It can harm the foetus.		
Chronic effects	Prolonged exposure without control might produce chronic effects.		
SECTION 12. ECOTOXICOLOGICAL INFORMATION			
Zinc Oxide - <i>-Aquatic Environment (a)</i>			
Acute			
Algae	IC ₅₀		1,63 -6,65 µg/l, 72 hours
Invertebrates	EC ₅₀		140 - 6000 mg/l, 24 hours
Fish	CL ₅₀		330 µg/l, 96 hours
Chronic			
Invertebrates	NOEC		33,3-100 µg/l, (9 months)
Fish	NOEC		78-575 µg/ l , (8 months)
Sulphur - <i>-Aquatic Environment (a)</i>			
Acute			
Algae	IC ₅₀		Not available
Crustaceans	EC ₅₀		Not available
Fish	CL ₅₀		5 g/l, (4 days)
Chronic			
Invertebrates	NOEC		Not available
Fish	NOEC		9,3 mg/ l , (28 days)
Toxicity	Large or frequent spills could have harmful effects on the environment.		
Persistence and degradability	Information unavailable		



Bioaccumulative potential	Information unavailable
Mobility in soil	Information unavailable
Other adverse effects	The product might have lasting harmful effects for aquatic organisms.
SECTION 13. DISPOSAL CONSIDERATIONS	
Disposal methods	The discharge to surface water courses or groundwater should be avoided. Recovery of the material with inert absorbents, whenever possible.
Manipulation	The corresponding PPE should be used, as reported in section 8. Place the material in suitable containers for disposal.
Treatment	Dispose according to applicable legal regulations. The containers, once used and cleaned, may contain traces of the product. Observe the warnings indicated on the label after emptying the container.
SECTION 14. TRANSPORT INFORMATION	
International regulations	This product is not classified as dangerous according to the CNRT (Argentina), Mercosur Dangerous Goods Transportation Agreement [Acuerdo Sobre Transporte de Mercancías Peligrosas del Mercosur].
Special provisions for transport	Land and sea transport: General cargo
Environmental hazards	IMDG: The product is not covered by international rules or by those of the European Union on the transport of dangerous goods. IMO: The product is not classified as Hazardous. ADN: The product is not classified as Hazardous. RID/ADR: It is not covered by international rules or by those of the European Union on the transport of dangerous goods. IATA: The product is not covered by international rules or by those of the European Union on the transport of dangerous goods.
Transport in bulk <i>according to Annex II of MARPOL 73/78 and the IBC Code</i>	Not established.
UN Number	Not regulated.
UN Proper Shipping Name	Not regulated.
Hazard class(es) for transportation	Not regulated.
Packing Group	Not regulated.



SECTION 15. REGULATORY INFORMATION			
Other regulations	Mercosur Dangerous Goods Transportation Agreement [Acuerdo Sobre Transporte de Mercancías Peligrosas del Mercosur] National Health and Safety Law No. 19587/72 National Traffic Law No. 24,449 National Hazardous Waste Law No. 24,051 Regulatory Decree No. 351/79 on Health and Safety Resolution 195/97 Technical Standards Res. MTySS 295/03 Chemical Pollutants SRT Resolution No. 801/15 GHS SRT Resolution No. 3359/15, Extension GHS GHS - Globally Harmonized System of Classification and Labeling of Chemicals. 5th Ed. Revised. United Nations, New York and Geneva, 2013. TOMES Plus®, Vol 28, January 1996 Micomedex Inc.		
SECTION 16. OTHER INFORMATION			
Glossary	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> GHS: Globally Harmonized System. ACGIH: American Conference of Governmental Industrial Hygienists. (USA) AIHA WEEL: Workplace Environmental Exposure Level of the American Industrial Hygiene Association (USA) Carcinogenic: It is said of the physical, chemical or biological agent that induces the development of cancer. Teratogenic: That generates malformations to the fetus. CAS: Chemical Abstract Service. CL50: Lethal Media Concentration. CNRT: National Commission for Transport Regulation DL₅₀: Mean Lethal Dose, CL₅₀: Lethal Media Concentration. EC₅₀: Concentration with effect in 50% of organisms. IARC: International Agency Research on Cancer Mutagenic: Substance or agent that permanently alters the DNA of cells. </td> <td style="width: 50%;"> OECD: Organization for Co-operation and Development. OSHA: Occupational Safety and Health Administration (USA) EPA: Environmental Protection Agency (USA) PEL: Permissible Exposure Limit. TLV: Threshold Limit Value. TWA: Time-weighted average. CMP: Maximum allowable concentration. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods (Code). IMO: International Maritime Organization. ADN: European Agreement on the International Transport of Dangerous Goods in Inland Navigation. RID: Regulation of the International Transport of Dangerous Goods by Rail. ADR: "European Agreement on the International Transport of Dangerous Goods by Road". </td> </tr> </table>	GHS: Globally Harmonized System. ACGIH: American Conference of Governmental Industrial Hygienists. (USA) AIHA WEEL: Workplace Environmental Exposure Level of the American Industrial Hygiene Association (USA) Carcinogenic: It is said of the physical, chemical or biological agent that induces the development of cancer. Teratogenic: That generates malformations to the fetus. CAS: Chemical Abstract Service. CL50: Lethal Media Concentration. CNRT: National Commission for Transport Regulation DL ₅₀ : Mean Lethal Dose, CL ₅₀ : Lethal Media Concentration. EC ₅₀ : Concentration with effect in 50% of organisms. IARC: International Agency Research on Cancer Mutagenic: Substance or agent that permanently alters the DNA of cells.	OECD: Organization for Co-operation and Development. OSHA: Occupational Safety and Health Administration (USA) EPA: Environmental Protection Agency (USA) PEL: Permissible Exposure Limit. TLV: Threshold Limit Value. TWA: Time-weighted average. CMP: Maximum allowable concentration. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods (Code). IMO: International Maritime Organization. ADN: European Agreement on the International Transport of Dangerous Goods in Inland Navigation. RID: Regulation of the International Transport of Dangerous Goods by Rail. ADR: "European Agreement on the International Transport of Dangerous Goods by Road".
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FOR MORE INFORMATION	CONTACT PROFERTIL SA		
Date of the Last Revision	Rev. Nº 01 November 8, 2016		
Historial of Revision	Does not have.		
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