











SAFETY DATA SHEET

Product	Personal Protection Elements			
ZINC DDP	 Gloves	 Overall	 Safety goggles	 Maintenance-free respirator

SECTION 1. PRODUCT IDENTIFICATION	
GHS Product identifier	ZINC DDP
Other means of identification	
Recommended use of the chemical and restrictions on use In the agricultural industry.	EMERGENCY PHONE NUMBER 24 HS (0291) 459-8188 - (0291) 459-8008 - Security (0291) 154-050419 – Safety Health (0291) 459-8196 – Medical Service
SUPPLIER Profertil S.A. Planta de Fertilizantes, Puerto de Ing. White – Zona Cangrejales, Bahía Blanca, Argentina	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			
Hazardous Substance to the aquatic environment	Acute1			Warning	Very toxic to aquatic organisms	H400	
	Chronic1					Very toxic to aquatic organisms with lasting harmful effects	H410
Reproductive toxicity	1A		Does not require	Danger	It may damage fertility or harm the foetus.	H360	
Specific target organ toxicity (repeated exposure)	2		Does not require	Warning	It may impair certain organs by prolonged or repeated exposure	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			
Oral Acute Toxicity	4		Does not require	Warning	Harmful if ingested.	H302	
Acute Toxicity Via Inhalation	4				Harmful in case of inhalation	H332	
Skin corrosion/irritation	1			Danger	Causes serious eye damage.	H318	
Summary	Causes serious eye damage. 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 has acute and chronic toxic effects for aquatic organisms.						
SECTION 3. INFORMATION ON INGREDIENTS							
Composition: Mixture			Comercialization: Bines – Bulk				
Common name	Synonyms of the Substance	CAS number	Chemical family	Formula	Composition (% by weight)		
Zinc oxide	Zinc Monoxide	1314-13-2	Inorganic salt	ZnO	90		
Zinc Hydroxide	-	20427-58-1	Inorganic Compound	ZN (OH)2	4,8%		
Zinc sulfate	-	69012-24-4	Inorganic Compound	ZnSO4(H2O)	2,5%		
Hydroxy Zinc Chloride Sulfate Hydrated	-	-	Inorganic Compound	Zn12(SO4)Cl3 (OH)15 . 5H2O	1,1%		
SECTION 4. FIRST-AID MEASURES							
Contact with eyes	IF IN EYES: Rinse cautiously with water for several minutes (not less than 15 minutes), keeping the eyelids open and making circular movements with the eyes. Remove contact lenses, if worn and easy. Continue rinsing Call a TOXICOLOGICAL INFORMATION CENTER or a doctor immediately.						
Contact with skin	Remove contaminated clothing and wash before reuse. IN CASE OF SKIN CONTACT, wash with plenty of water and soap. In case of skin irritation: consult a doctor.						
Inhalation	IN CASE OF INHALATION, transport the victim outside and keep them at rest in a position comfortable for breathing. Call a Toxicology Information 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.
Prudence advice Prevention	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 dust. Use only outdoors or well ventilated places Do not eat, drink or smoke during use - Wash thoroughly after handling. Wear gloves / clothing / glasses / protective mask. IN CASE OF EXPOSITION OR PRESUMED EXPOSITION: Consult a doctor. If you need a specific treatment (see this document).
SECTION 5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media	In the event of a fire in the sector, any type of extinguishing agent can be used, selected based on other materials present.
Specific hazards arising from the chemical	Not applicable.
Special protective actions for fire-fighters	In case of fumes or gases, those responsible for controlling the fire must wear respiratory protection and full protective clothing during the extinction of chemical fires. Contain the water used in the fire fighting, preventing it from reaching drains or water courses and collecting it for later treatment.
SECTION 6. ACCIDENTAL RELEASE MEASURES	
Personal precautions, protective equipment and emergency procedures	For people who are not part of the emergency control: retreat from the site and avoid contact with skin, eyes 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
Environmental precautions	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.
Methods and materials for containment and cleaning up	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.



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. 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.</p>
Conditions for safe storage	<p>Appropriate conditions: Keep in tightly closed original containers, stored in clean, tidy, ventilated and locked areas.</p> <p>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 goggles.</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	Inodour	Vapour pressure	Undetermined
Odour threshold	Not available	Vapour density	Not applicable
pH	Not available	Solubility	Undetermined
Melting/Solidification Point	Undetermined	Partition coefficient: n-octanol/water	Undetermined
Initial boiling point and boiling range	Undetermined	Auto-ignition temperatura	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	Due to the Zinc Oxide content, it is recommended to avoid high temperatures.
Incompatible materials	Due to the Zinc Oxide content, it is recommended to avoid contact with Magnesium and chlorinated rubber.
Hazardous Decomposition Products	Because of the zinc oxide content, toxic fumes could be released.
Special Observations	Does not have

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity by mixture component, routes of entry and test species

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). Practically non toxic</p>
Zinc Hydroxide	<p>-<i>Dermic</i>: DL₅₀: Not available</p> <p>-<i>Oral</i>: DL₅₀: 2000 - 5000 mg/kg (-Rat-). Practically non toxic</p> <p>-<i>Inhalation</i>: CL₅₀: 1,79- 5.7 mg/l,(- Rat - 4 Hours). Practically non toxic</p>



Zinc Sulfate	- <i>Dermic</i> : DL ₅₀ : Not available - <i>Oral</i> : DL ₅₀ : 23 - 2350 mg/kg (-Rat) -Toxic 60,2 - 890 mg/Kg (Mouse) – Toxic - <i>Inhalation</i> : Not available
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage	Causes serious eye damage.
Acute toxicity	May be harmful if ingested or inhaled.
Respiratory or skin sensitization	Not described
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	It can impair fertility or harm the fetus.
Specific target organ toxicity –single exposure	Not described.
Specific target organ toxicity –repeated exposure	May cause damage to organs through prolonged and repetitive exposures.
Aspiration hazard	Not classified
Teratogenicity	Avoid contact during pregnancy/lactation. It can harm the foetus.
Chronic effects	Prolonged exposure without control may 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)
Zinc Hydroxide and Zinc Sulfate-		<i>- Aquatic Environment (a)</i>	
Acute			
Algae	IC ₅₀		163 -150 µg/l, 72 hours
Crustaceans	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)



Toxicity	Discharges can have noxious or harmful effects on the environment.
Persistence and degradability	Not available information
Bioaccumulative potential	Not available information
Mobility in soil	Not available information
Other adverse effects	The product is dangerous for the aquatic environment.
SECTION 13. DISPOSAL CONSIDERATIONS	
Disposal methods	Discharge into surface or underground water courses should be avoided. Material recovery, whenever possible.
Manipulation	The corresponding PPEs, reported in section 8, should be used. Place the material in appropriate containers and identify them correctly for disposal.
Treatment	Dispose according to applicable legal regulations. Once used, the containers may contain traces of 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 applicable.
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	<p>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.</p>
SECTION 16. OTHER INFORMATION	
Glossary	<p>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.</p> <p>OECD: Organization for Cooperation and Development OSHA: Occupational Safety and Health Adm. (USA) Teratogenic: That generates malformations. PEL: Exposure Limit Allowed TLV: Threshold Limit Value TWA: Time weighted average. IATA: International Air Transport Association. IMDG: International Maritime Code of Dangerous Goods IMO: International Maritime Organization. ADN: European Agreement on the International Transport of Dangerous Goods in inland navigation. RID: Regulations for the International Transport of Dangerous Goods by Rail. ADR: "European Agreement on the International Carriage of Dangerous Goods by Road".</p>
FOR MORE INFORMATION	CONTACT PROFERTIL SA
Date of the Last Revision	Rev. Nº 02 December 15, 2016
Historial of Revision	This document replaces the rev. Nº 01, adapting to the Regulations indicated in the GHS and to Res. SRT No. 801/15 of Argentina.
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