





## SAFETY SHEET DATA

Product	Personal Protection Elements		
<b>eNe-TOTAL PLUS</b>	 Gloves	 Respiratory protection	 Safety goggles

SECTION 1. PRODUCT IDENTIFICATION	
<b>GHS Product identifier</b>	Granulated Urea
<b>Other means of identification</b>	Does not have
<b>Recommended use of the chemical and restrictions on use</b> In the agricultural industry as fertilizer.	<b>EMERGENCY PHONE NUMBER 24 HS</b> (0291) 459-8188 - (0291) 459-8008 – Security (0291) 154-050419 – Safety Health (0291) 459-8196 – Medical Service
<b>SUPPLIER</b> Profertil S.A. Román Subiza Esq. Prefectura (Puerto Nuevo). CP 2900-San Nicolás -Buenos Aires, Argentina	<b>DISTRIBUTOR</b> Profertil S.A. Román Subiza Esq. Prefectura (Puerto Nuevo). CP 2900-San Nicolás -Buenos Aires, Argentina

SECTION 2. HAZARD IDENTIFICATION							
Clasificación de la Sustancia	Clasificación		Labeled				Hazard Indication Code
	Hazard class	Hazard category	Pictogram		Signal word	Hazard Indication	
			GHS	Model Regulations of the UN			
	Skin sensitization	2B		It is not required	Warning	It can cause a skin reaction	H317
<b>Summary</b>	Contact with the powder of this product may cause sensitivity, irritation to the skin, eyes and respiratory tract. Not classified as dangerous substance according to Directive 92/32 / EEC. The product is not considered toxic to humans. It is not listed as carcinogenic, mutagenic or teratogenic according to ACGIH, EPA, IARC, OSHA. Its decomposition can affect aquatic life.						

SECTION 3. INFORMATION ON INGREDIENTS					
<b>Composition:</b> Granulated urea sprayed with a thin film of Additives * <i>* Mix of additives in benzyl alcohol solution</i>			<b>Comercialization:</b> solid granulated in bag and in bulk.		
Common name	Synonyms of the Substance	CAS number	Chemical Family	Formula	Composition (% by weight)
Urea	Granulated Urea	57-13-6	Carbamide - Aliphatic Amide	CO(NH <sub>2</sub> ) <sub>2</sub>	>99
Mix of additives	-	-	-	-	0.2

<b>SECTION 4. FIRST-AID MEASURES</b>	
<b>Contact with eyes</b>	Contact with the dust may cause irritation to the eyes, so immediately rinse the eyes with plenty of water, at least for 15 minutes, keeping the eyelids open. Request medical attention.
<b>Contact with skin</b>	Contact with dust may cause irritation to the skin. If irritation should arise, seek medical attention. Remove and wash contaminated clothing and shoes.
<b>Inhalation</b>	Contact with dust may cause irritation to the mucous membranes and upper respiratory tract, therefore the exposed person should be moved to a place where he can breathe uncontaminated air. Request medical attention.
<b>Ingestion</b>	Rinse the mouth with water. Do not induce vomiting unless expressly indicated by medical personnel.
<b>SECTION 5. FIRE-FIGHTING MEASURES</b>	
<b>Suitable extinguishing media</b>	Extinguishing agent for fire A/B/C.
<b>Specific hazards</b>	It is not combustible. Its thermal decomposition can produce ammonia (NH <sub>3</sub> ), nitrogen oxides (NO <sub>x</sub> ), carbon oxides (CO, CO <sub>2</sub> ) and water.
<b>Special protective actions for fire-fighters</b>	In case of fumes or gases, those in charge of controlling the fire should use Autonomous Breathing Equipment and Structural Equipment for Firefighters. Collect the water used in the fight against the fire for its subsequent reuse or treatment.
<b>SECTION 6. ACCIDENTAL RELEASE MEASURES</b>	
<b>Personal precautions, protective equipment and emergency procedures</b>	Use the corresponding PPEs. In case of dust generation, ventilation should be provided to allow compliance with occupational exposure limits. Otherwise, the use of a mask should be indicated.
<b>Environmental precautions</b>	Prevent spills from entering drains, surface water courses, groundwater, etc. Avoid the generation of dust.
<b>Methods and materials for containment and cleaning up</b>	Absorb and/or contain the spill with inert material and place in a suitable container. The spilled material can be slippery. If the product is contaminated with soil, it can be reused as fertilizer. To do this, you must collect the spilled material with mechanical means (manual and/or mechanical shovels, industrial vacuum cleaners, etc.). Do not use water. In case of precipitation, avoid entering water bodies and cover the product with impermeable material until the end of said meteorological condition. Water with recovered urea can be reused as fertilizer.
<b>SECTION 7. HANDLING AND STORAGE</b>	
<b>Precautions for safe handling</b>	Avoid the generation of dust, smoke or fog. Avoid spills to water. Use adequate ventilation to maintain exposure within the permitted limits. Prevent handling with incompatible substances. Do not eat, drink or smoke in the work areas. Wash hands after handling products. Remove contaminated clothing and PPE before entering dining rooms.
<b>Conditions for safe storage</b>	Store in dry, tempered and adequately ventilated areas (if necessary using appropriate technical controls), to keep particulate concentrations below the exposure limits. Avoid contact with incompatible substances.

<b>SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION</b>			
<b>Control parameters</b>	There are no tables or specific occupational exposure limits. ACGIH TLV-TWA / Res. MTEySS No. 295/03: Particles (insoluble) not otherwise specified (PNEOF) 10 mg / m <sup>3</sup> in 8 hours as an inhalable fraction and 3 mg / m <sup>3</sup> as a respirable fraction. OSHA PEL: Total powder: 15 mg / m <sup>3</sup> TWA (8 hours).		
<b>Appropriate engineering controls</b>	Keep dust concentrations in air below occupational exposure limits. If necessary, local exhaust ventilation should be used.		
<b>Individual protection measures, personal protective equipment (PPEs)</b>	To avoid contact with skin or eyes, wear long-sleeved clothing that protects limbs and / or romper, calfskin gloves, safety glasses. In case of high dust dispersions, use PVC romper, PVC gloves and approved respiratory protection for powders.		
<b>SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES</b>			
<b>Appearance</b>		<b>Physical state:</b> Solid (Granulated) <b>Colour:</b> Light yellow	
<b>Odour</b>	Slightly ammoniacal	<b>Vapour pressure</b>	0.002 Pa @ 25 °C
<b>Odour threshold</b>	Not available	<b>Vapour density</b>	Not applicable
<b>pH (10% sol. in water)</b>	8	<b>Solubility</b>	624 g/L @ 20 °C 40% at 0 °C, 88% at 100 °C (in water)
<b>Melting point / freezing point</b>	132,7 °C	<b>Partition coefficient: n-octanol/water</b>	Insoluble in octanol
<b>Initial boiling point and boiling range</b>	Not available	<b>Auto-ignition temperatura</b>	Not available
<b>Flash point</b>	Not available	<b>Decomposition temperatura</b>	190 °C
<b>Evaporation rate</b>	Not applicable	<b>Relative density</b>	1.33 @ 20 °C
<b>Flammability</b>	Not flammable	<b>Apparent density</b>	Bulk: approximately 720 kg/m <sup>3</sup> Bagged: approximately 810 kg/m <sup>3</sup>
<b>Upper/lower flammability or explosive limits</b>	Not available	<b>Viscosity</b>	Not available
<b>SECTION 10. STABILITY AND REACTIVITY</b>			
<b>Chemical stability</b>	The product is stable.		
<b>Possibility of hazardous reactions</b>	Slightly reactive with reducing agents, oxidants, acids, alkalis and water. It can become explosive when mixed with hypochlorites, forming nitrogen trichloride that can explode spontaneously. Do not mix or deposit with ammonium nitrate.		
<b>Conditions to be avoided</b>	High temperatures and humidity.		
<b>Incompatible materials</b>	Incompatible with halogens, hydrogen peroxide, chlorinated hydrocarbons, nitric acid, oxidizing agents and sulfuric acid.		
<b>Hazardous decomposition products</b>	Exposure to high temperatures produces toxic gases due to thermal decomposition: ammonia (NH <sub>3</sub> ), nitrogen oxides (NO <sub>x</sub> ), carbon oxides (CO, CO <sub>2</sub> ) and water.		



<b>Special Observations</b>	Absorbs moisture from the air. It is hygroscopic. Slow hydrolysis can produce corrosive acids.	
<b>SECTION 11. TOXICOLOGICAL INFORMATION</b>		
<b>Acute toxicity</b>	Acute Oral Toxicity: LD50: 14300 - 15000 mg/kg (rat - male). (Urea)	
<b>Skin corrosion/irritation</b>	It can cause a skin reaction.	
<b>Serious eye damage/irritation</b>	It may have some irritating effect on the eyesight.	
<b>Respiratory or skin sensitization</b>	May have irritating effects on the skin.	
<b>Germ cell mutagenicity</b>	Not listed as mutagenic by ACGIH, IARC, NIOSH, NTP, or OSHA.	
<b>Carcinogenicity</b>	Not available. Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, or OSHA	
<b>Reproductive toxicity</b>	Effect on developmental toxicity - Oral: No adverse effects observed. NOAEL 1000mg / kg weight / day (subacute, rats).	
<b>Specific target organ toxicity – single exposure</b>	Not available.	
<b>Specific target organ toxicity – repeated exposure</b>	Not available.	
<b>Aspiration hazard</b>	Not applicable, if the exposure limits of inhalable dust are not exceeded.	
<b>SECTION 12. ECOTOXICOLOGICAL INFORMATION</b>		
<b>Urea: Acute (in aquatic environment)</b>		
Fish	CL <sub>50</sub>	10 -17.86 g/l, 48 hours (fresh water)
Invertebrates	CL <sub>50</sub>	10 g/l, 24 hours (fresh water)
Crustaceans – Chaetogammarus marinus – Young	CL <sub>50</sub>	>1.000 mg/l , 48 hours
Dafnia magna –Neonate	EC <sub>50</sub>	3910000 µg/l (fresh water) , 48 hours
<b>Urea: Chronic (in aquatic environment)</b>		
Fish -Heteropneustes fossilis	NOEC	2 g/L (fresh water) 30 days
<b>Toxicity</b>	Low toxicity in aquatic organisms.	
<b>Persistence and degradability</b>	Quickly biodegradable It is not persistent. The decomposition of the product in bodies of water promotes the growth of algae, increasing the turbidity, decreasing the concentration of oxygen and preventing photosynthesis.	



<b>Bioaccumulative potential</b>	Low bioaccumulation Log <sub>POW</sub> : <1,73.
<b>Mobility in soil</b>	Coefficient of soil / water partition (K <sub>OC</sub> ): 0,037.
<b>Other adverse effects</b>	Not available.
<b>SECTION 13. DISPOSAL CONSIDERATIONS</b>	
<b>Disposal methods</b>	Recovery and reuse of the material whenever possible.
<b>Manipulation</b>	Place the material in suitable containers for use or disposal. The corresponding PPEs should be used. Spillage to surface water courses or groundwater should be avoided.
<b>Treatment</b>	Depending on the type of contamination, consult the Medical Safety. In case of not being able to recover and/or reuse the material, it should be treated as a non-hazardous industrial waste.
<b>SECTION 14. TRANSPORT INFORMATION</b>	
<b>International regulations</b>	This product is not considered dangerous according to the CNRT (Argentina), Mercosur Dangerous Goods Transportation Agreement [Acuerdo Sobre Transporte de Mercancías Peligrosas del Mercosur].
<b>Special provisions for transport</b>	Land and sea transport: General cargo
<b>Environmental hazards</b>	IMDG: It is not a marine pollutant IMO: It is not a dangerous substance ADN: It is not a dangerous substance RID/ADR: It is not a dangerous substance
<b>UN Number</b>	Not regulated as a hazardous material
<b>UN Proper Shipping Name</b>	Not regulated as a hazardous material
<b>Hazard class(es) for transportation</b>	Not regulated as a hazardous material
<b>Packing Group</b>	Not regulated as a hazardous material
<b>SECTION 15. REGULATORY INFORMATION</b>	
<b>Other regulations</b>	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.

<b>SECTION 16. OTHER INFORMATION</b>	
<b>Glossary</b>	<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            DL<sub>50</sub>: Mean Lethal Dose,            CL<sub>50</sub>: Lethal Media Concentration.            EC<sub>50</sub>: 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 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".</p>
<b>FOR MORE INFORMATION</b>	CONTACT PROFERTIL SA
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<b>Historial of Revision</b>	Does not have
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