





SAFETY DATA SHEET

Product	Personal Protection Elements			
PROTERRA DS	 Gloves	 overall	 Safety goggles	 Half-mask with filter

SECTION 1. PRODUCT IDENTIFICATION	
GHS Product identifier	UAN
Other means of identification	UAN 32%
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) 154-050419 – Safety Health (0291) 459-8196 – Medical Service
SUPPLIER Profertil S.A. Terminal San Nicolás, Provincia de Buenos Aires – Argentina	DISTRIBUTOR Profertil S.A. Terminal San Nicolás, Provincia de Buenos Aires - Argentina

SECTION 2. HAZARD IDENTIFICATION							
Classification of the substance	Clasification		Labeled			Hazard indication code	
	Hazard class	Hazard category	Pictogram		Signal word		Hazard indication
			GHS	Model Regulations of UN			
			Not Applicable				
Summary	It can be dangerous if swallowed because it reduces the transport capacity of oxygen in blood (methemoglobinemia), mainly in children and risk groups. Overexposure to aerosols can cause respiratory, dermal or eye irritation. It is not carcinogenic, mutagenic or teratogenic according to ACGIH, EPA, IARC, OSHA.						

SECTION 3. INFORMATION ON INGREDIENTS					
Composition: Mixture			Comercialization: Bines – Granel		
Common name	Synonyms of the substance	CAS number	Chemical family	Formula	Composition (% by weight)
Urea	Urea granulated fertilizer	57-13-6	Carbamide - Aliphatic Amide	CO(NH ₂) ₂	27.2- 33.3
Ammonium nitrate	Ammonium salt of nitric acid	6484-52-2	Inorganic Ammonium Salt	NH ₄ NO ₃	33.6 – 40
Ammonium Thiosulfate	Ammonium hyposulfite	7783-18-8	Oxyanion	Na ₂ S ₂ O ₃	5 - 12
Water	-	7732-18-5			13.2 – 21.6



SECTION 4. FIRST-AID MEASURES	
Contact with eyes	Contact with the product causes serious eye irritation, therefore, IN CASE OF CONTACT WITH EYES, rinse thoroughly with water for several minutes. Remove contact lenses if worn and easy. Continue washing. In case of eye irritation, consult a doctor.
Contact with skin	There are no known contact effects, however, IN CASE OF CONTACT WITH CLOTHING: Immediately wash contaminated clothing and skin with plenty of water before removing clothing. Remove contaminated clothing and wash before reuse.
Inhalation	Exposure to degradation products of some of their components may cause health risks. 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	The product is harmful if ingested, IF INGESTED, if the affected person requires CPR, avoid mouth-to-mouth contact. Do not induce vomiting. In case of vomiting, try to keep the head lower than the chest so that the vomit does not enter the lungs. Decontaminate face and mouth with water to remove visible material. If the exposed person is conscious and can swallow, give 1-2 sips of water. Rinse mouth. Call a poison control center.
Notes for the doctor	A fertilizer based on ammonium nitrate can be irritating to the mouth, throat and stomach. It can cause methemoglobinemia (a condition that interferes with the ability to transport oxygen from the blood), if ingested in large quantities or for a prolonged period of time. In case of inhalation of decomposition products (carbon monoxide, carbon dioxide, nitrogen oxides) in a fire, symptoms may appear later. The exposed person may need to be kept under medical surveillance for up to 72 hours. In cases of suspected methemoglobinemia, monitor blood levels of methemoglobin. The treatment is supportive; Blue methylene may be indicated based on the severity of the patient.
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. Use only outdoors and with your back to the wind. Do not eat, drink or smoke during use - Wash thoroughly after handling. Wear gloves/clothing/glasses/protective mask.
SECTION 5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media	It is not flammable. In case of fire use suitable means to the environment. If the product dries, use water as a flood. Do not use chemical extinguishers, foam or sand.
Specific hazards arising from the chemical	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxide and sulfur oxides. Under normal conditions it is not combustible but can become explosive if combined with a flammable substance and / or dried at a low percentage of water. The pressure may increase and the container may explode in case of heating or fire. It is not an oxidizer at the factory concentration. It may act as a oxidizing liquid if it is concentrated by evaporation. Exposure to degradation products may cause health risks. Serious effects may arise in the long term after exposure. Water used for emergency containment may be contaminated, proceed according to the corresponding disposal recommendations. (section 6)
Special protective actions for fire-fighters	In case of fire, quickly isolate the area, evacuating all people from the vicinity. No action should be taken involving personal risk or without adequate training. Firefighters or those responsible for controlling the fire should wear Autonomous Breathing Equipment and thermal protective clothing. See Section 8. Collect the water used in fire fighting for later reuse or treatment.



SECTION 6. ACCIDENTAL RELEASE MEASURES	
Personal precautions, protective equipment and emergency procedures	<p>For people who are not part of the emergency control: Withdraw from the place and avoid contact with the product.</p> <p>For personnel who will control the emergency: Use the Personal Protective equipment described in Section 8.</p> <p>Do not touch spilled material without protection.</p> <p>Place the recovered product in appropriate containers and identify it with the corresponding signage</p>
Environmental precautions	<p>Avoid spillage of product on the environment, especially water courses, waste can exhibit oxidizing properties. Contain and collect the water you use for fire fighting, for further treatment and disposal.</p>
Methods and materials for containment and cleaning up	<p>Define and isolate the area of the spill, signal it and prevent the entry of unauthorized persons. Absorb and / or contain the spill with dry inert material (sand, earth, vermiculite, diatomaceous earth, etc).</p> <p>Large spills: When possible, prepare a dike or barrier for spilled material. To recover, use mechanical means (such as: shovels and buckets) and place in containers, for reuse or disposal. After removing the product, verify the cleanliness of the area.</p> <p>Small spills: Collect material directly with mechanical means. Check the cleanliness of the spilled surface.</p> <p>If the product cannot be reused, the labeled containers must be managed for disposal according to local regulations.</p> <p>In case of precipitation, avoid entering water bodies and cover the product with impermeable material until the end of said meteorological condition.</p>
SECTION 7. HANDLING AND STORAGE	
Precautions for safe handling	<p>Do not handle the product without having read and understood the safety instructions. When handling do it wisely, avoid spilling the material. The work area should be limited to people who use appropriate safety equipment when handling the product (section 8). Avoid contact of the product with the eyes. Do not inhale vapor or mist of the product. Use outdoors or well ventilated places. Use adequate ventilation.</p> <p>Prevent handling with incompatible substances.</p> <p>Do not eat, drink or smoke in work areas. Wash your hands after handling the products. Take off contaminated clothing and PPEs and clean thoroughly before entering the dining rooms.</p>
Conditions for safe storage	<p>Maintain order and cleanliness of storage places. Keep in tightly closed original containers, stored in clean, tidy areas, protected from direct sunlight in a dry, cool area ventilated and locked.</p> <p>Keep in original container and away from incompatible materials. It can be corrosive to metals, heat and incompatible materials.</p> <p>Open containers should be stored in an upright position and closed to avoid spillage. Do not store unlabeled containers.</p> <p>Keep away from heat or temperature.</p> <p>If regulations exist, store in accordance with local or regional regulations.</p>
SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION	
Control parameters	<p>There are no known occupational exposure limits for the mixture.</p>
Appropriate engineering controls	<p>There are no special ventilation requirements. General ventilation is usually sufficient. It is recommended to manipulate in open places and work with your back to the wind. Closed work areas must remain clean and ventilated. If necessary, local ventilation should be used.</p> <p>Provide station for eye wash.</p>



Individual protection measures, personal protective equipment (PPEs)	Protect yourself from vapors or aerosol projections Wear safety goggles. Wear long-sleeved clothing that protects the extremities, bodysuit and/or PVC apron and PVC or neoprene gloves. Use PVC/neoprene gloves, waterproof leather shoes and approved respiratory protection for ammonia aerosols, all the time of exposure. In the presence of high concentrations of product vapors or mists in the air, wear approved respiratory protection. Discard PPEs that have deteriorated.		
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance		Physical state: liquid	
		Colour: greenish	
Odour	Slightly ammoniac	Vapour pressure	17.2 mmHg (at 20°C)
Odour threshold	Not available	Vapour density	Not available
pH	5.5 – 7.5	Solubility	Completely in water
Melting/Solidification Point	Not available	Partition coefficient: n-octanol/water	The product is soluble on water
Initial boiling point and boiling range	100 °C	Auto-ignition temperature	Not applicable
Flash point	Not applicable	Decomposition temperature	Undetermined
Evaporation rate	Undetermined	Relative density	Not available
Flammability	Not applicable	Apparent density	1.283 Kg/m ³
Upper/lower flammability or explosive limits	Not applicable	Viscosity	Not available
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	Slightly corrosive to zinc, copper and aluminum. If mixed with chlorine or hypochlorites, it can form nitrogen trichloride, which can spontaneously explode on contact with air.		
Conditions to be avoided	High temperatures should be avoided.		
Incompatible materials	Oxidizing agents, concentrated acids, strong bases, finely powdered metals (cadmium, copper, lead, cobalt, nickel, bismuth, chromium, magnesium, zinc, sodium, potassium and aluminum). Copper, copper and zinc alloys. It is explosive when mixed with hypochlorite forming nitrogen trichloride that can explode spontaneously in the air. It can also explode by detonation, heat or shock when it evaporates to dryness.		
Products of the dangerous decomposition	Under normal conditions of storage and use, hazardous decomposition products should not be formed. However, exposure to high temperatures produces toxic vapors by thermal decomposition: Ammonia (NH ₃), nitrogen oxides (NO _x).		
Special Observations	Does not have		
SECTION 11. TOXICOLOGICAL INFORMATION			
Acute toxicity by mixture component, routes of entry and test species			
Ammonium nitrate	<i>-Dermic:</i> DL ₅₀ : >5000 mg/kg (- Rat). Not classified <i>-Oral:</i> DL ₅₀ : 2950 mg/kg (-Rat/Mouse-). Practically non-toxic		
Urea	<i>-Skin:</i> Not available <i>-Oral:</i> DL ₅₀ : 14300 – 15000 mg/kg (-Rat-)		



Ammonium Thiosulfate	- Oral : DL ₅₀ : 2890 mg/kg (rats) . DL ₅₀ : 2100 mg/kg (mouse) - Inhalation (dust and mist): CL ₅₀ : >2260 mg/m ³ (rats 4 hs)- Source Agrium
Skin corrosion/ irritation	
Ammonium nitrate	-Skin: Rabbit : Not irritating to the skin -eyes: Conjunctive Edema : Rabbit 3 days The effects are not enough to classify them as dangerous
Urea	-skin: No adverse effects were observed (Not irritating) -eyes: No adverse effects were observed (Not irritating)
Ammonium Thiosulfate	Skin (rat): Not irritating to the skin
Serious eye damage	Contact with high concentrations of dust may cause irritation on contact with eyes.
Skin sensitization	
Ammonium nitrate	-Skin – Mouse: Non sensitizing
Urea	-Skin: No adverse effects were observed (Not sensitizing) -Inhalation: No adverse effects were observed (Not sensitizing)
Ammonium Thiosulfate	Not available
Germ cell mutagenicity	
Ammonium nitrate	OECD 471 – In vitro experiment - Bacteria - Negative OECD 476 – In vitro experiment - Animal Mammal - Negative
Urea	Not described
Ammonium Thiosulfate	Not available
Carcinogenicity	
Ammonium nitrate	Not available
Urea	Not available
Ammonium Thiosulfate	Not available
Reproductive toxicity	
Ammonium nitrate	Oral Rat:1500 mg/Kg Negative Maternity Negative Fertility Tox development Negative There are no known significant or critical effects.
Urea	Oral Rat: NOAEL 1000 mg/Kg
Ammonium Thiosulfate	Not available

Specific target organ toxicity –single exposure	Not available		
Specific target organ toxicity –repeated exposure	Not available.		
Aspiration hazard	Not available.		
Teratogenicity			
Ammonium nitrate	Oral Rat: 1500 mg/kg There are no known significant or critical effects.		
Urea	Not available		
Ammonium Thiosulfate	Not available		
Chronic effects	Not available.		
SECTION 12. ECOTOXICOLOGICAL INFORMATION per component of the mixture			
Ammonium nitrate - Aquatic Environment (a)			
Acute			
Algae	NOEC		>1700 mg/l, 10 days
daphnia	EC ₅₀		490 mg/l, 48 hours
Fish	CL ₅₀		447 mg/l, 48 hours
Urea - Aquatic Environment (a)			
Acute			
Algae	NOEC		Not available
daphnia	EC ₅₀		Not available
Fish	CL ₅₀		10 -17.86 g/l, 48 hours (sweet water)
Ammonium Thiosulfate - Aquatic Environment (a)			
Agudo			
Algae	NOEC		Not available
Daphnia	EC ₅₀		Not available
Fish	CL ₅₀		770 mg/l (trout) in 96 hours. Source Agrium
Toxicity	Virtually non-toxic to aquatic organisms. Very low acute toxicity to fish.		
Persistence and degradability	According to the criteria of the European Union (EU): Easily biodegradable.		
Bioaccumulative potential	Information not available		
Mobility in soil	Information not available		
Other adverse effects	There are no known significant effects or critical hazards.		
SECTION 13. DISPOSAL CONSIDERATIONS			
Disposal methods	Recovery and reuse of the material, whenever possible.		



Manipulation	Discharge into surface or underground water courses should be avoided. Place the material in appropriate containers and identify them correctly for disposal. The corresponding PPEs, reported in section 8, should be used.
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. Depending on the type of contamination, consult to Safety Health.
SECTION 14. TRANSPORT INFORMATION	
International regulations	This product is not considered 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 those of the European Union on the transport of dangerous goods. IMO: The product is not classified as Dangerous. ADN: The product is not classified as Dangerous. RID/ADR: It is not covered by international rules or those of the European Union on the transport of dangerous goods. IATA: The product is not covered by international rules or 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>	Does not apply
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	<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>
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Date of the Last Revision	Rev. Nº 01 February 5, 2018
Historial of Revision	Does not have
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