




SAFETY DATA SHEET

Product	Personal Protection Elements		
MONOAMMONIUM PHOSPHATE (MAP)	 Gloves	 Respiratory Protection	 Goggles

SECTION 1. PRODUCT IDENTIFICATION							
GHS Product identifier		Monoammonium phosphate					
Other means of identification		MAP Di-Ammonium Phosphate					
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 Imported		DISTRIBUTOR Profertil S.A. Terminal San Nicolás, Provincia de Buenos Aires - Argentina					
SECTION 2. HAZARD IDENTIFICATION							
Classification of the substance	Clasificación		Labeled				Hazard indication code
	Hazard class	Hazard category	Pictogram		Signal word	Hazard indication	
			GHS	Model Regulations of the UN			
Not applicable.							
Summary	Not classified as hazardous material according to Directive 92/32 / EEC and Regulation (CE) No. 1272/2008 [CLP / GHS]. The product is not considered toxic to humans. It is not carcinogenic, mutagenic or teratogenic according to ACGIH, EPA, IARC, OSHA. Its decomposition can affect aquatic life. Contact with the powder of this product may cause irritation to the eyes, respiratory tract and skin.						
SECTION 3. INFORMATION ON INGREDIENTS							
Composition: Constituent, Impurity and Additives.			Comercialization: Granulated in bag and in bulk.				
Common name	Synonyms of the Substance	CAS number	Chemical family	Formula	Composition (% by weight)		
Monoammonium phosphate	MAP	7722-76-1	Salts of ammonium and Phosphates	PO ₄ H ₂ NH ₄	> 70		
Ammonium sulphate + Diammonium phosphate	-	7783-20-2 7783-28-0	-	SO ₄ Ca/ SO ₄ (NH ₃) ₂	< 25		
SECTION 4. FIRST-AID MEASURES							
Contact with eyes	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. Remove contact lenses if you have one and can do so. Request medical attention.						



Contact with skin	Contact with dust can cause skin irritation, so wash the contaminated area with soap and water. If the irritation persists, seek medical attention. Remove and wash contaminated clothing and shoes.
Inhalation	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.
Ingestion	Rinse the mouth with water. Do not induce vomiting unless expressly indicated by medical personnel.
SECTION 5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media	Extinguishing agent for fire A/B/C.
Specific hazards arising from the chemical	It is not combustible. Its thermal decomposition can produce ammonia (NH ₃), nitrogen oxides (NO _x), phosphorus oxides (PO _x) and water.
Special protective actions for fire-fighters	In case of fumes or gases, those responsible for controlling the fire should use Structural Equipment for firefighters and Autonomous Breathing equipment. Collect the water used in the fight against the fire for its subsequent reuse or treatment.
SECTION 6. ACCIDENTAL RELEASE MEASURES	
Personal precautions, protective equipment and emergency procedures	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.
Environmental precautions	Prevent spills from entering drains, surface water courses, groundwater, etc. Avoid the generation of dust.
Methods and materials for containment and cleaning up	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.
SECTION 7. HANDLING AND STORAGE	
Precautions for safe handling	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 PPEs before entering dining rooms.
Conditions for safe storage	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.
SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION	
Control parameters	There are no specific occupational exposure limits. ACGIH TLV-TWA / Res. MTEySS No. 295/03 CMP: 10 mg / m ³ in 8 hours as powder inhalable OSHA PEL: Total powder: 15 mg / m ³ TWA (8 hours), Respirable fraction: 5 mg / m ³ TWA / CMP (8 hours)



Appropriate engineering controls	Keep dust concentrations in air below occupational exposure limits. If necessary, local exhaust ventilation should be used.		
Individual protection measures, personal protective equipment (PPEs)	To avoid contact with skin or eyes, wear long-sleeved clothing that protects limbs and / or romper, leather gloves, safety glasses. In case of high concentrations of dust dispersed in the air, use PVC romper, PVC gloves and respiratory protection approved for dust.		
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance			Physical state: Solid (Crystals) Colour: Light green to gray
Odour	Odourless to slightly ammoniacal	Vapour pressure	Not applicable
Odour threshold	17 ppm as NH ₃	Vapour density	Not applicable
pH (sol. in water)	5	Solubility	Easily soluble in hot water. Soluble in cold water. Insoluble in ethanol and acetone
Punto de fusión / solidificación	It decomposes at 190 °C	Partition coefficient: n-octanol/water	The product is soluble in water
Initial boiling point and boiling range	Not applicable	Auto-ignition temperatura	Not applicable
Flash point	Not applicable	Decomposition temperatura	190 °C
Evaporation rate	Not applicable	Relative density	1,62 (water = 1)
Flammability	Not applicable	Apparent density	976 kg/m ³ (bagged)
Upper/lower flammability or explosive limits	Not applicable	Viscosity	Not available
SECTION 10. STABILITY AND REACTIVITY			
Chemical stability	The product is stable		
Possibility of hazardous reactions	It can be corrosive to iron, mild steel, aluminium, zinc and copper.		
Conditions to be avoided	High temperatures and humidity.		
Incompatible materials	Avoid contact with alkaline materials.		
Hazardous decomposition products	Exposure to high temperatures produces toxic gases due to thermal decomposition: ammonia (NH ₃), nitrogen oxides (NO _x), phosphorus oxides (PO _x) and water. Does not polymerize.		
Special Observations	Absorbs moisture from the air. It is hygroscopic. Slow hydrolysis can produce corrosive acids.		
SECTION 11. TOXICOLOGICAL INFORMATION			
Acute toxicity	Product test results, OECD 402 acute dermal toxicity (MAP): LD ₅₀ : > 5,000 mg / kg (rats) Product test results, OECD 425 acute oral toxicity (MAP): LD ₅₀ :> 2,000 mg / kg (rats)		



Skin corrosion/irritation	Contact with high concentrations of dust may cause skin irritation.
Serious eye damage/irritation	Contact with high concentrations of dust can cause irritation in the eyes.
Respiratory or skin sensitization	Contact with high concentrations of dust may cause irritation to the respiratory tract.
Germ cell mutagenicity	It is not classified as mutagenic.
Carcinogenicity	It is not classified as a carcinogen.
Reproductive toxicity	It is not classified as toxic for reproduction.
Specific target organ toxicity – single exposure	It is not classified as toxic.
Specific target organ toxicity – repeated exposure	It is not classified as toxic.
Aspiration hazard	Not applicable, if the exposure limits of inhalable dust are not exceeded.
SECTION 12. ECOTOXICOLOGICAL INFORMATION	
Toxicity	Low toxicity in aquatic organisms. Product test results (MAP), OECD 203 toxicity 6 h LC50 (rainbow trout) for concentrations greater than 85.9 mg/l.
Persistence and degradability	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.
Bioaccumulative potential	No information available of Log _{POW} .
Mobility in soil	It is quickly transformed by soil microorganisms. No ground/water partition coefficient value available (K _{OC}).
Other adverse effects	Not available.
SECTION 13. DISPOSAL CONSIDERATIONS	
Disposal methods	Recovery and reuse of the material whenever possible.
Manipulation	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.
Treatment	Depending on the type of contamination, consult the <u>Medical Safety</u> . In case of not being able to recover and / or reuse the material, it should be treated as an industrial waste not dangerous.
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: Not regulated IMO: Not regulated ADN: Not regulated. RID/ADR: Not regulated. IATA: Not regulated.	
UN Number	Not regulated as a hazardous material	
UN Proper Shipping Name	Not regulated as a hazardous material	
Hazard class(es) for transportation	Not regulated as a hazardous material	
Packing Group	Not regulated as a hazardous material	
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	MASS: Environment, Health and Safety 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. CMP: Maximum Concentration Allowed	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. DNA: 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". MTySS: Ministry of Labor and Social Security CLP: Classification, Labeling and Packaging [EC Regulation].
FOR MORE INFORMATION	CONTACT PROFERTIL SA	
Date of the Last Revision	Rev. No. 02 February 15, 2016	
Historial of Revision	This document replaces Rev. No. 01, adopting the requirements of the Regulations indicated in the GHS and in Res. SRT No. 801/15 of Argentina	
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