



MATERIAL SAFETY DATA SHEET

Producer / Importer: "AGROPOLYCHIM" AD

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Identification of substance or product:

Granular Ammonium Phosphate Monobasic

Product code: GMAP

1. Identification of the substance (product) and the company:

1.1. Identification of the substance/product:

NAME OF THE PRODUCT: <i>Granular MAP</i>	CAS № 7722-76-1	EINECS № 233-330-0
CHEMICAL NAME: <i>Monoammonium phosphate</i> <i>Designation: EC Fertilizer, NP</i>	MOLECULAR FORMULA: NH ₄ H ₂ PO ₄	PRODUCT CODE: GMAP

1.2. General information:

Phosphate Inorganic Fertilizer

1.3. Company identification (Name and address):

"Agropolychim" JSC, Devnya, Bulgaria, Industrial zone, Devnya 9160

1.4. Contact numbers in case of emergency:

Tel: +359519 / 97 – 530 ; fax: + 359519 / 9 - 33 - 63

2. Composition / Component information:

2.1. General characteristics of chemical substances and their percentage content in the product:

Monoammonium phosphate - NH₄H₂PO₄ min.100 w. %

COMPONENTS	WEIGHT %	DANGER MARK	RISK PHASE
Total Nitrogen	min. 11,0 %	NO	NO
Total P ₂ O ₅	min. 52,0 %	NO	NO
Moisture	max. 1,5 %	NO	NO



2.2. Concentrations or concentration limits for substances classified as dangerous:

Not classified as dangerous.

2.3. Concentrations or concentration limits for substances classified as non-dangerous:

Maximum concentration at the working place: 5 mg/m³ (as fine particle dust).

2.4. Classification of substance by preceding point:

X₁ – Irritant (after inhalation, after eye contact, etc.)

2.5. Name and number of substance by EINECS or ELINCS:

EINECS № 231-764-5

3. Hazards identification. Potential health effects:

GMAP is not dangerous, non-combustible, non-toxic and non-flammable solid product.

Classification:	- non-toxic
Emergency:	- not established
Precautions:	- Avoid breathing dust. - Avoid ingestion. - Avoid excessive contact with eyes. - Use by adequate ventilation.

Overexposure conditions:	- Acute: unknown - Chronic: unknown
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Inhalation:	- Dust may cause respiratory irritation;
Skin contact:	- May cause slightly skin irritation;
Eye contact:	- May irritate eyes;
Ingestion:	- May cause irritation of the gastrointestinal tract and vomiting.

4. First Aid:

4.1. Inhalation:

Move the affected person to fresh air and provide oxygen if breathing is difficult. Treat symptomatically. Get medical assistance promptly.

4.2. Skin contact:

Wash contaminated area with soap or mild detergent and water. If chemical or soluble penetrates through clothing, remove clothing at spot and wash contaminated skin as above. If irritation persists after washing, ask for medical assistance.

4.3. Eye contact:

Flush with plenty of water at least for 15 min. If it is necessary seek for medical assistance.

4.4. Ingestion:

Give large quantities of water to the patient if conscious. Induce vomiting and seek for medical assistance. Do not leave the affected person alone.



4.5. Further medical treatment:

Symptomatic treatment and supportive therapy as indicated, if it is necessary.

4.6. Specific first aid equipment at the working place:

Availability of flushing water and soap.

5. Fire-fighting measures:

5.1. Appropriate fire-fighting resources:

The product is non-flammable, but in event of fire all standard fire-fighting resources may be used.

5.2. Inappropriate fire-fighting resources:

No data available.

5.4. Special fire-fighting protection:

Personnel must be equipped with appropriate protective clothing and respiratory protection.

6. Accidental release measures:

6.1. Personal protection:

- Use dust masks, protective clothing, goggles, etc.;

6.2. Environmental protection:

Do not allow to penetrate into sewage, surface or ground water. Do not contaminate with potable water. It can stimulate the process of alga's growth.

6.3. Spillage cleaning procedure:

Sweep and collect the spilled material in suitable closed containers for reuse or contact the appropriate local authority for guidance on acceptable waste disposal methods. Advise police if substance has penetrated into water sources or sewage or has contaminated soil or ground water. Do not put back collected material in the original storage tanks.

7. Handling and storage:

7.1. Handling:

- To be used:*
- Dust protective masks;*
- Protective gloves;*
- Safety goggles and/or full-face shield;*
- Protective clothing;*
- Do not store near food stuff.*

7.2. Storage:

Store in a cool, dry, well-ventilated place. Avoid contact with moisture as it may come to product cake. Store away from incompatible materials.



8. Exposure control and personal protection:

8.1. Exposure limits:

Maximum concentration at the working place: 5 mg/m³ (as fine particle dust), common dust - 15 mg/m³.

8.2. Exposure control:

Avoid skin and eye contact and inhalation of dust. Wear overalls, safety glasses or goggles and protective clothing.

Respiratory protection is required if airborne concentration is high or unknown. An approved dust / mist respirator should be worn in dusty environment. Always wash hands before smoking, eating, drinking or using the toilet facilities. Use proper ventilation. Promptly remove soiled clothing and wash thoroughly before reuse. Take a shower after work by using plenty of soap and water.

However, if the working conditions create a discomfort to the workers, a local exhaust system should be considered.

8.2.1. Exposure control at the working place: As scheduled.

8.2.1.1. Respiratory protection: Use a dust protective mask.

8.2.1.2. Hand protection: Protective gloves.

8.2.1.3. Eye / Face protection: Safety goggles.

8.2.1.4. Skin and body protection: Protective clothing.

8.2.2. Control by impact of substance (product) on the environment:

If large quantity of spilled material penetrates the soil, sewage, surface or ground water this will increase the phosphates and ammonium ion content. The fertilizers norms must be observed.

9. Physical and chemical properties:

9.1. General information:

- Appearance: *granulated material*
- Physical condition: *solid*
- Color: *gray to black*
- Odour: *none*

9.2. Physical and chemical information:

pH:	- 4,5 (for 10 % water solution)
boiling point:	- no data available
flash point:	- no data available
melting point:	190 °C
explosive properties:	- not applicable
oxidizing properties:	- no data
vapour pressure [20 °] [mmHg]:	- no data available
relative density:	- 1,800 gr/sm ³
molecular weight:	- 115,05 gr
solubility in water:	- soluble – 100 %



solubility in organic solutions:	- <i>slightly soluble in alcohols</i>
coefficient of n-octanol/water distribution:	- <i>not available</i>
viscosity:	- <i>not applicable</i>
vapour density:	- <i>not applicable</i>
percent volatile:	- <i>non volatile</i>
molecular formula:	- $\text{NH}_4\text{H}_2\text{PO}_4$

10. Stability and reactivity:

Chemically stable under normal conditions of use. Hazardous decomposition products: Extreme temperature such as a fire causes formation on toxic fumes of PO_x and ammonia.

11. Toxicological information:

Not found to be toxic by oral exposure. Based on toxicity data for other phosphate compounds is not expected to be toxic by dermal exposure.

12. Ecological information:

12.1. Ecotoxicity:

*Not found data for ecological toxicity.
Non-toxic to aquatic organisms.
Soil organisms: No data available
Plants and terrestrial animals: No data available*

Other harmful effects:

- *Depletion of ozone layer: No*
- *Creating of photochemical potential of ozone layer: No*
- *Possibility of global warming: No*

12.2. Mobility:

Do not allow to penetrate into sewage, surface or ground water. Do not contaminate drinking water.

12.3. Persistence and degradability:

Persistence and degradability: stable.

- *Biotic and abiotic degradability: No data available*
- *Aerobic and anaerobic degradability: No data available*
- *Duration: No data available.*

12.4. Accumulation:

- *Potential of biological accumulation: No data available*
- *Cumulative effect: No data available.*



13. Disposal considerations:

Disposal of spilled material should be in compliance with applicable local, state and national environmental regulatory requirements.

14. Transport information:

*Not classified as hazard material for transportation.
Packing – In bulk or in P/P bags of 50 kg.*

15. Regulatory information:

This MSDS is created according to national (Bulgarian State Standard (BSS) and European legislation.

Please revert to the state regulations, which are applicable for this product.

Danger mark: NO

R-Phrase(s): NO

S-Phrase(s): NO

16. Other information:

Version № 2

Revision Date: April, 2009

Section Revised: All, new format.

The buyer takes all risks, related to the use of this product (material).

All safety regulations must be observed.

The seller is not responsible for any damages or injuries caused by the use of the product even by observing all safety regulations.

Disclaimer: This information relates to the specific material designated and may not be valid for such material used in combination with any other product or in any process. Such information is to be the best of our knowledge and belief, accurate and reliable as of the date compiled.

It is the user's responsibility to use this information for their own particular purposes. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.



AGROPOLYCHIM

Member of the Acid & Fertilizers Group

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