

**M A T E R I A L   S A F E T Y   D A T A   S H E E T****Producer / Importer:** "AGROPOLYCHIM" AD**Date of issue:** .07.2005.**Address:****Edition:** 3 /

Industrial zone, Devnya

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Post code: 9160

**Pages:** 7

Bulgaria

**Identification of substance or product:****GRANULAR TRIPLE SUPERPHOSPHATE****Product code:** TSP**1. Identification of substance (product) and the company:****1.1. Identification of substance or product:**

|   |  |                              |
|---|--|------------------------------|
| <b>NAME OF THE PRODUCT:</b><br>Granular Triple Superphosphate                 | <b>CAS №</b><br>none   |                              |
| <b>CHEMICAL NAME:</b><br>Monocalcium phosphate<br>Calcium phosphate monobasic | <b>MOLECULAR FORMULA:</b><br>Ca(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub> ·H <sub>2</sub> O<br>GTSP 0-46-0 | <b>PRODUCT CODE:</b><br>GTSP |

**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:***Monocalcium phosphate - Ca(H<sub>2</sub>PO<sub>4</sub>)<sub>2</sub>H<sub>2</sub>O min.100 w. %*

| COMPONENTS  | WEIGHT %    | DANGER MARK | RISK PHASE |
|---|-------------|-------------|------------|
| Water and Citrate Soluble P <sub>2</sub> O <sub>5</sub> | min. 45,5 % | NO          | NO         |
| Water soluble P <sub>2</sub> O <sub>5</sub>             | min 43,0 %  | NO          | NO         |
| Moisture  | max. 4,0 %  | 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 workplace concentration: 5 mg/m<sup>3</sup> (as fine particle dust).*

## 2.4. Classification of substance by preceding point:

*X<sub>1</sub> – Irritant (after inhalation, after eye contact, etc.)*

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

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## 3. Hazards identification. Potential health effects:

GTSP 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 in adequate ventilation.**

**Overexposure conditions:**

*Acute: unknown*

*Chronic: unknown*

**Inhalation:**

*- Dust may cause respiratory irritation;*

**Skin contact:**

*- May cause 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, seek 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 patient if conscious. Induce vomiting and seek for medical assistance.*

#### 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 have proper protective clothing and respiratory protection.*

#### 6. Accidental release measures:

##### 6.1. Personal protection:

*- Use dust masks, protection clothing, goggles, etc.*

##### 6.2. Environmental protection:

*Do not allow to penetrate into sewage/surface or ground water. Do not contaminate drinking 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 groundwater.*

## **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 workplace concentration: 5 mg/m<sup>3</sup> (as fine particle dust)., common dust - 15 mg/m<sup>3</sup>.*

### **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 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 into the soil, sewage, surface or ground water this will increase the phosphates content. The fertilizers norms must be observed.*

## **9. Physical and chemical properties:**

### **9.1. General information:**

- Appearance: *gray granulated material*
- Physical condition: *solid*
- Color: *grayish-white*
- Odor: *slight odor*

### **9.2. Physical and chemical information:**

|  |   |
|--|---|
| pH:  | - 2.3 - 3 (for 10 % water solution)                                 |
| boiling point:                               | - no data available   |
| flash point:                                 | - no data available   |
| melting point:                               | - no data available   |
| explosive properties:                        | - not applicable  |
| oxidizing properties:                        | - no data   |
| vapour pressure [20 °] [mmHg]:               | - no data available   |
| relative density:                            | - 1.15 - 1.20   |
| specific gravity:                            | - 1.15 T/m <sup>3</sup> at free fall                                |
| solubility in water:                         | - soluble – 85 %  |
| solubility in organic solutions:             | - insoluble   |
| coefficient of n-octanol/water distribution: | - not available   |
| viscosity:                                   | - not applicable  |
| vapour density:                              | - not applicable  |
| percent volatile:                            | - non volatile  |
| molecular formula:                           | - Ca(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub> H <sub>2</sub> O |
| molecular weight:                            | - 252.0644  |

## **10. Stability and reactivity:**

*Chemically stable under normal conditions of use. Hazardous decomposition products: Extreme temperature such as a fire causes formation of toxic fumes of PO<sub>x</sub>.*

## **11. Toxicological information:**

*Product: Mammalian*

*Oral LD 50[Sheep]: 5000 – 6000 mg/kg. Not found to be toxic by oral exposure. Based on toxicity data for other phosphate compounds (i.e. ammonium nitrates), not expected to be toxic by dermal exposure.*



## 12. Ecological information:

### 12.1. Ecotoxicity:

#### *Aquatic organisms:*

- *Fish: LC 50 [96 h] – 1560 – 5900 mg/l;*
- *Daphnia: EC 50 [72 h] – 1790 – 1825 mg/l;*
- *Algae, OECD Guidelines 201 (green algae, Selenastrum)*

*No toxicity at up to 87.6 mg/l; stimulation observed at 42.6 mg/l and higher. 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 potable 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 accordance with applicable local, state and national environmental regulatory requirements.*

## 14. Transport information:

*Not classified as hazardous for transportation.*

*Packing – In bulk and 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 to this product.

Danger mark: NO

R-Phrase(s): NO

S-Phrase(s): NO

## 16. Other information:

**Version № 3**

**Revision Date:** July, 2005

**Section Revised:** All, new format.

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

The seller does not take any responsibility or obligations, concerning information presented in this document or for any damages and injuries from the above-mentioned product. 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.

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