

**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" AN**Date of issue:** .05.2005.**Address:**

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**Pages:** 6**Identification of substance or product:  
STABILIZED AMMONIUM NITRATE****Product code: SAN****1. Identification of substance (product) and the company:****1.1. Identification of substance or product:**

<b>NAME OF THE PRODUCT:</b> Stabilized Ammonium Nitrate	<b>CAS №</b> 6484-52-2	<b>EINECS №:</b> 229-347-8
<b>CHEMICAL NAME:</b> Ammonium Nitrate	<b>MOLECULAR FORMULA:</b> NH <sub>4</sub> NO <sub>3</sub>	<b>PRODUCT CODE:</b> SAN

**1.2. General information:***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:***Stabilized ammonium nitrate - NH<sub>4</sub>NO<sub>3</sub>**CAS№ 6484-52-2*

<b>COMPONENTS</b>	<b>WEIGHT %</b>	<b>DANGER MARK</b>	<b>RISK PHASE</b>
Total content of N	min 31,0 %	NO	NO
Content of P <sub>2</sub> O <sub>5</sub>	max 4,00 %		
Total content of foodstuff	min 34,0		
Moisture	max 1,00 %		
Granulometry	Min 94% between 1-4mm		



## 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:

$LD_{50}$  – 4820 mg/kg (rat, oral);  
 $LD_{50}$  > 3000 mg/kg (rabbit, skin)

## 2.4. Classification of substance by preceding point:

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

EINECS №: 229-347-8

## 3. Hazards identification. Potential health effects:

### **Emergency overview:**

*Danger! Strong oxidizer. May be harmful if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract.*

*Health rating: 1 – slight*

*Flammability rating: 0 – none*

*Reactivity rating: 3 – severe [oxidizer]*

*Contact rating: 2 – moderate*

- **Inhalation:** *May cause irritation to the respiratory tract; symptoms could be coughing, sore throat and shortness of breath. At high temperatures, exposure to toxic nitrogen oxides decomposition products can quickly cause acute respiratory problems. Inhalation of large amounts causes systematic acidosis and abnormal hemoglobin.*
- **Skin contact:** *Causes irritation to skin. Symptoms include redness, itching and pain.*
- **Eye contact:** *Causes irritation, redness and pain.*
- **Ingestion:** *Large doses of nitrates may cause dizziness, abdominal pain, vomiting, bloody diarrhea, weakness, convulsions and collapse. Harmful if swallowed. May cause methemoglobinemia, resulting in cyanosis.*

## 4. First Aid:

### 4.1. Inhalation:

*Move to fresh air. Get medical assistance promptly.*

### 4.2. Skin contact:

Wash contaminated area with soap or mild detergent and water. If chemical or solution 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:

Wash thoroughly with flushing water. Get medical assistance as soon as possible.

#### 4.4. Ingestion:

Give large quantities of water to patient. Do not induce vomiting and seek for medical assistance. Never give anything by mouth to an unconscious person.

#### 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:

**Fire:** Not combustible, but substance is a strong oxidizer and heat of reaction with reducing agents or combustibles may cause ignition. May support combustion in an existing fire.

**Explosion:** Contact with oxidizable substances may cause extremely violent combustion. Sealed containers may rupture when heated. Sensitive mechanical impact.

#### 5.1. Appropriate fire-fighting resources:

*All standard fire-fighting resources can be used.*

#### 5.2. Inappropriate fire-fighting resources:

*Do not use salty water.*

#### 5.3. Special danger of exposition substance:

*Keep in a well-ventilated place.*

#### 5.4. Special fire-fighting protection:

*Personnel must have respiratory protection.*

#### 6. Accidental release measures:

#### 6.1. Personal protection:

*Use a dust protective mask and protection clothing and gloves.*

#### 6.2. Environmental precautions:

*Prevent from sewage or ground water and surface water.*



## 6.3. Procedure for spillage cleanup:

*Clean with machinery.*

## 7. Handling and storage:

### 7.1. Handling:

- *To be used:*
- *Dust protective mask;*
- *Protective gloves;*
- *Goggles;*
- *Availability of flushing water.*

### 7.2. Storage:

*Store in a covered, dry and clean storehouse. Protect from direct sunlight. Keep in a tightly closed container, stored in a cool, dry and ventilated area. Protect against physical damage. Store in a dry location, separate from combustible, organic or other readily oxidizable materials. Avoid storage on wood floors. Do not store above 54 °C [130 F°], preferably below 30 °C [86 F°].*

## 8. Exposure control and personal protection:

### 8.1. Exposure limits:

*Not available*

### 8.2. Exposure control:

**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:** *Goggles.*

**8.2.1.4. Skin and body protection:** *Chemical resistant clothing.*

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

*Increases level of nitrate and ammonia nitrogen in soil and water.*

## 9. Physical and chemical properties:

### 9.1. General information:

- *Appearance: white to grey-yellow granules*
- *Physical condition: solid*
- *Color: white to grey-yellow*



- Odor: *odourless*

## 9.2. Physical and chemical information

pH:	<i>4 – 6 (for 10 % solution)</i>
flash point:	<i>not applicable</i>
temperature ignition:	<i>235 °C</i>
explosive properties:	<i>not applicable</i>
oxidizing properties:	<i>oxidizer</i>
vapour pressure [20 °]:	<i>not applicable</i>
relative density:	<i>0.93-0.99 g/sm<sup>3</sup></i>
solubility in water:	<i>118 g/ 100 g H<sub>2</sub>O</i>
solubility in organic solutions:	<i>insoluble</i>
coefficient of n-octanol/water distribution:	<i>not available</i>
viscosity:	<i>not applicable</i>
vapour density:	<i>not applicable</i>
vapour speed:	<i>not applicable</i>
molecular formula:	<i>NH<sub>4</sub>NO<sub>3</sub></i>
molecular weight:	<i>80</i>

## 9.3. Other information

boiling point:	<i>210 °C</i>
melting point:	<i>170 °C</i>

## 10. Stability and reactivity:

*Stable under normal conditions of use. Hazardous decomposition products:* Emits nitrous oxides when comes to decomposition. Liberates ammonia in reaction with strong alkalis. Hazardous polymerization will not occur. **Conditions and materials to be avoided:** heat, flame, ignition sources, dusting and incompatibles. Moisture and combustible material. Shock sensitive. **Incompatibilities:** aluminum, antimony, copper, iron, lead, magnesium, manganese, nickel, zinc, brass, oil, charcoal, organic materials, acetic acid, ammonium chloride, bismuth, cadmium, chlorides, cobalt, phosphorus, potassium and ammonium sulfate, sodium, sodium hypochlorite, sodium perchlorate, sodium-potassium alloy and sulfur.

### 10.1. Conditions to be avoided:

*Avoid storage in an open-air and on a wooden floor.*

### 10.2. Materials to be avoided:

*Avoid contact with organic compound, phosphorus fertilizer, wooden materials, coals, calcinated soda, metals, soda, sulfur, chlorides.*



## 10.3. Hazardous decomposition products:

$NH_3$ ,  $HNO_3$ ,  $NO_x$

## 11. Toxicological information:

**Toxicity:** The product is non-toxic. It may cause irritation by contact with skin and mucous membrane. Toxicity: Oral rat LD50: 2217 mg/kg.

**Carcinogenicity:** Not listed by ACGIH, IARC, OSHA, NTP

**Teratogenicity:** Not listed by ACGIH, IARC, OSHA, NTP

**Mutagenicity:** Not listed by ACGIH, IARC, OSHA, NTP

## 12. Ecological information:

When released into the soil, this material is expected to leach into ground water.

When released into the soil, this material is expected to biodegrade readily.

No information was found for environmental toxicity.

### 12.1. Ecotoxicity:

Non-toxic for aquatic organisms and for the process of algae's growth. Do not allow to penetrate into sewage/surface, ground water or potable water.

- Fishes: LC 50 [96 h]. -> 9,1 mg/l

- Daphnia: EC 50 [24 h]; -> 10 mg/l

### 12.2. Mobility:

- Prevent from penetration into sewage or the surface water.

### 12.3. Sustainability and degradability:

- It is absorbed in the soil by the plants.

### 12.4. Accumulation:

- No accumulation.

## 13. Disposal considerations:

Disposal should be in accordance with applicable local, state and national environmental regulatory requirements.

## 14. Transport information:

Transportation in bulk by lorry, goods wagon, ship.

Packing – P/P bags of 50 kg.

IMO: hazardous class 5.1

UN № 2067



## 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.*

*Keep away from ignition sources.*

*Avoid contact with skin and eyes.*

## 16. Other information:

### **Version № 3**

**Revision Date:** July, 2005

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

The buyer takes all risks concerning 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 caused by the use of 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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