

# SAFETY DATA SHEET

## Magruder Fertilizer Check Sample 190611

Has been prepared for laboratory analysis by grinding to a powder.

This SDS applies to the original fertilizer as received from the manufacturer.

### Granular fertilizer 1 - 17/19 - 1

#### 1. Product and Company identification

##### 1.1. Product identification

Product name: granular fertilizer 1-17/19-1

Chemical name: N/A

Chemical family: acidulated phosphate rock, ammonium phosphates, inorganic salts.

UN number: N/A

Principal hazard: N/A

Recommended uses:

- Fertilization and refertilization of meadows and improved natural fields.
- Adjustment of phosphorus levels to the planting of crops such as soybeans or legume seedlings (clover, lotus, etc.).
- Fertilization and refertilization of alfalfa.

##### 1.2. Company information

Company: Industria Sulfúrica S.A. (ISUSA)

Address:

- Planta Ruta 1 - Km 24 - Ciudad del Plata, Departamento de San José
- Planta Agraciada - Camino Vecinal Tramo 154 s/n entre Ruta 21 Km 283½ y Ruta 12 Km 20 - Localidad de Agraciada, Departamento de Soriano
- Planta Nueva Palmira – Nuestra Señora de los Remedios esq. Soriano, Nueva Palmira – Departamento de Colonia
- Planta Durazno – Paraje La Cueva, entre Ruta 5 y Ruta 14, Km 174.500 Departamento de Durazno
- Planta Melo – Ruta 26 Km 428. Melo Departamento de Cerro Largo

Country: República Oriental del Uruguay (ROU)

Phone: +598 2347 2035

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Chemical emergencies: + 5 9 8 2347 2035, 08008522, +598 98 392811/22, 0800 8638.

## 2. Hazard identification

### 2.1. Classification

Not classified as dangerous substance according to EEC Directive 67/548 / EEC.  
Not classified as dangerous substance according to Regulation (EC) 1272/2008 CLP / GHS.

Not classified as dangerous substance according to the Facilitation Agreement for the Transport of Dangerous Goods by Road, Decree 560/2003.

### 2.2. Label elements

Pictogram: N/A

Signal word: N/A

Hazard statements: See section 11

Precautionary statements:

Prevention: avoid breathing dust.

Intervention: if on skin: wash with plenty of water, if in eyes: rinse cautiously with water for several minutes, remove contact lenses, if present and easy to do, continue rinsing, if inhaled: remove person to fresh air and keep comfortable.

Storage: N/A

Elimination: Disposal of content/containers to be in accordance with local/regional/national regulations.

**2.3. Other hazards:** Contains phosphates, effects of excess nutrients in water can occur. Toxic to aquatic life.

## 3. Composition information on ingredients

### 3.1. Formula

Typical analysis:

- soluble phosphorus as P<sub>2</sub>O<sub>5</sub> 17%
- total phosphorus as P<sub>2</sub>O<sub>5</sub>: 19%
- total nitrogen as N: 0.9%

- potassium as K<sub>2</sub>O: 0.9%
- Total sulfur as S: 11%
- Calcium as Ca: 20%

### 3.2. Composition

It is a product composed mainly of calcium dihydrogen phosphate monohydrate, calcium sulfate anhydrous, and fluororesilicates.

## 4. First aid measures

- Skin contact: Remove contaminated clothing and shoes and wash affected parts with plenty of water for 15 minutes. Wash clothes before reuse.
  - Eye contact: Flush eyes with plenty of water for 15 minutes.
  - Ingestion: If the person is conscious, give water to drink in important quantities, transfer the injured person and the product to the nearest medical emergency.
  - Inhalation: Remove the injured person to an area with fresh air.
- In all cases, request medical assistance immediately

## 5. Fire fighting measures

Non-combustible product. In case of fire in the surroundings: Suitable extinguishing media: All extinguishing media are suitable. Protection of firefighters: Use personal protective equipment, self-contained equipment or masks with filters for dust and acid gases. Substances released by heat or decomposition: during a fire it can release sulfur oxide, phosphorus oxide and fluorides.

## 6. Accidental release measures

**6.1.** Personal precautions, protective equipment and emergency procedures: Use protective equipment as indicated in section 8.3. In front of contaminated product or large spills, notify the authority. Avoid generating dust, ensure adequate ventilation.

**6.2.** Environmental precautions: Avoid getting in contact with superficial and underground water courses. Prevent dust from flying. Contact competent authorities.

**6.3.** Methods and materials for the containment and cleaning of spills: Any Spillage should be quickly collected and placed in appropriate and identified containers.

## **7. Handling and storage**

**7.1.** Precautions for safe handling: Minimize dust formation. Handle the product preferentially in covered, dry, ventilated area. When in contact with the product for a long time use appropriate personal protective equipment. It is forbidden to eat, drink or smoke in the work areas or during the handling of the product. Wash hands after using the product.

**7.2.** Storage: Store the product preferentially in covered, dry, ventilated area, away from sunlight and humidity

**7.3.** Incompatibilities with other substances: Avoid getting in contact with bases or Urea. The mixture of phosphates with magnesium can be explosive.

## **8. Exposure controls and personal protection**

### **8.1. Control parameters:**

Recommended exposure limit:

- TLV-TWA: mg / m<sup>3</sup> (ACGIH 2010) 10mg / m<sup>3</sup> (Appendix B: as particles not specified elsewhere, inhalable particles)
- TLV-STEL: mg / m<sup>3</sup> (ACGIH 2010). Not available
- OSHA PEL: mg / m<sup>3</sup> Not available
- NIOSH REL: mg / m<sup>3</sup> Not available

### **8.2. Appropriate engineering controls.**

Precautionary measures and mechanical equipment: Avoid high concentrations of dust and provide ventilation where necessary.

### **8.3. Individual protection measures**

Protection for eyes and face: Safety glasses.

Respiratory protection: Mask for dust if the concentration is high.

Hand protection: In case of handling the product for a long time use PVC gloves.

Necessary hygiene measures: do not eat, drink or smoke during work.

## 9. Physical and chemical properties

- Appearance: Gray powder or granules
- Smell: Mild characteristic odor
- Olfactory threshold: Not available
- PH: The 10% aqueous solution pH > 3
- Melting and / or freezing point: Does not have, decomposes before
- Boiling point: N / A
- Flash point: N / A
- Evaporation rate: N / A
- Flammability: Not flammable
- Vapor pressure: N / A
- Vapor density (air = 1): N / A
- Apparent density: 1000 - 1200 Kg / m<sup>3</sup>
- Solubility in water: Moderately soluble
- Coefficient of distribution: N / A
- Auto inflammation temperature: N / A
- Decomposition temperature: Above 900°C
- Viscosity: Not available

## 10. Stability and reactivity

### 10.1. Reactivity

Stable product at room temperature, under normal conditions of storage, handling and use.

### 10.2. Chemical stability

Stable product at room temperature, under normal conditions of storage, handling and use.

### 10.3. Possibility of dangerous reactions

In contact with high temperature or flame can decompose and generate toxic gases: sulfur oxide, phosphorus oxide and fluorides.

### 10.4. Conditions to avoid

Contact with incompatible substances, unnecessary exposure to the atmosphere, proximity to sources of heat or ignition.

## 10.5. Incompatible Materials

Combustible materials, alkalis, urea.

## 10.6. Hazardous decomposition products

In contact with high temperature or flame can decompose and generate toxic gases: sulfur oxide, phosphorus oxide and fluorides.

# 11. Toxicological information

## 11.1. Acute effects:

Skin contact: May cause skin irritation. Eye contact: Irritating to the eyes.

Ingestion: Nausea and vomiting

Inhalation: May cause irritation of the respiratory tract (in the mucous membrane of the throat, nose), nausea and vomiting.

## 11.2. Chronic effects

Corrosivity / skin irritation: Not available

Serious eye damage / eye irritation: Not available

Respiratory or skin sensitization: Not available

Mutagenic: Not available

Carcinogenicity: N / A

Reproductive toxicity: N / A

Specific target organ toxicity:

- Single exposure: Not available

- Repeated exposure: Not available.

- Aspiration hazard: Not available.

No effects of exposure to the product are expected. Pre-existing respiratory diseases, including asthma and emphysema, can get worse, as well as dermatological conditions.

## 12. Ecological information

### 12.1. Toxicity

Toxicity in fish (Brachydanio rerio): LC 50 mg / l in 24 hours. Not available.

Crustacean toxicity (Daphnia): EC50 mg / l in 24 hours. Not available. (Source: EC Regulation 91/155 / EC)

The product is a little toxic to aquatic organisms.

12.2. Persistence and degradability: High concentrations of phosphates in the aquatic environment promote the growth of algae (eutrophication of the environment) which can degrade water quality and taste.

12.3. Bioaccumulation: No data available.

12.4. Mobility in the soil: No data available.

12.5. Other adverse effects: No data available

## 13. Disposal considerations

13.1. Recommended methods for final disposal of the product: It is not considered a hazardous waste according to EU Directive 91/689 / EC.

13.2. Recommended methods for final disposal of waste: Recover and reuse the material when possible.

13.3. Recommended methods for final disposal of contaminated packaging: After emptying them, wash them properly to be reused or discarded.

## 14. Transport info

- UN Number: Not classified
- Name according to UN: Not applicable
- Risk classification for transport: Not classified
- Packing group: Not applicable
- Environmental risks
- According to the IMDG Code: Not classified
- According to the RID Code: Not classified
- According to the ADN Code: Not classified
- Special precautions for the user: Stow in dry places and prevent dust from flying.

IMDG (International Maritime Code of Dangerous Goods).

RID (Regulations on the International Transport of Dangerous Goods by Rail).

ADN (European Agreement concerning the international transport of dangerous goods by inland waterway).

## 15. Regulatory information

15.1 -Decree 560/2003, National Regulations for the Transport of Dangerous Goods by Road.

15.2 -Exempt amount for the application of Decree 560/2003: Not classified.

15.3 -Fertilizer Law 13663 06/24/1968

## 16. Other information

16.1 -This safety data sheet is made in accordance with the requirements of the Globally Harmonized System.

16.2 -Agreement for the facilitation of the transport of dangerous goods in Mercosur. Ministry of Transport and Public Works. Montevideo, 2005.

16.3 -EU Directive 91/689 / EC.

16.4 -Product datasheet of BUNGE Fertilizers.

16.5 -Safety data sheets of:

- MOSAIC Argentina S.A.
- CHEVRON COMPANY
- REPSOL YPF
- Egyptian Financial and Industrial Company
- Joint Stock Co.

16.6 - <http://esis.jrc.ec.europa.eu/>

16.7 - <http://iaspub.epa.gov/>

16.8 - <http://www.ncbi.nlm.nih.gov/>