

# PULAN<sup>®</sup>

TECHNICAL SPECIFICATION

WT-2013/ZA-4/1

#### 1. SUBJECT OF THE SPECIFICATION

The specification concerns prilled ammonium nitrate (fertiliser type A.1.5 listed in Annex I to Regulation (EC) No 2003/2003) containing additives such as magnesium nitrate and sprayed with anticaking agent.

#### 2. REQUIREMENTS

#### 2.1. GENERAL REQUIREMENTS

PULAN<sup>®</sup> is produced in the form of white or slightly creamy prills.

PULAN<sup>®</sup> fulfils the requirements set forth in Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers.

#### 2.2. DETAILED REQUIREMENTS

Detailed requirements are shown in Table 1.

Table 1

| No. | Requirements  |            | Unit               | Limits      |
|-----|---|------------|--------------------|-------------|
| 1.  | Total nitrogen content  | -          | % (w/w)            | 34,4 (-0,6) |
| 2.  | Loss on drying at $(105 \pm 3)^{\circ}$ C   | max        | % (w/w)            | 0,3         |
| 3.  | Particle size:<br>fines able to pass through a sieve with a mesh of:<br>- 1,00 mm<br>- 0,5 mm | max<br>max | % (w/w)<br>% (w/w) | 5<br>3      |

NOTE: The producer guarantees the flowability of this product if stored under conditions specified in Section V.

#### 3. LABELLING

Product label shall be located in conspicuous location and shall be permanently affixed to the packing. Label text and information should be in a size of type large enough to be readily legible. Labelling of PULAN<sup>®</sup> includes:

• The commercial product name: PULAN<sup>®</sup>, Ammonium nitrate 34,4N

- The name, address, logo and telephone number of the manufacturer
- The nominal quantity of the product
- Designation: "EC FERTILSER" (upper case printing)
- The type of EC fertiliser: Ammonium nitrate
- Information on nutrient forms and nutrient contents
- The quality mark "Q"
- Hazard pictograms
- Signal word
- Hazard statements
- Precautionary statements
- Handling symbols: "Keep dry", "Keep away from heat", "Stacking limit by number" and "Temperature limitations"
- Danger label No. 5.1 (class 5.1: Oxidising substances) and UN number: 2067
- The symbol of recycling in case of PE bags having capacity of 30 kg
- The symbol indicating material of which bag is made of in case of PE bags having capacity of 30 kg

#### 4. PACKING

PULAN<sup>®</sup> may be delivered in original packages only. The following packages may be used:

- 30 kg polyethylene (PE) bags stacked on a pallet and protected by wrapping with stretch film
- elastic containers of the big-bag type; 600kg
- other packaging as agreed with the customer



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#### 5. STORAGE

PULAN<sup>®</sup> should be stored in original packaging only. The storage buildings should be clean, dry and well ventilated. Procedures should be in place to prevent against theft or access by unauthorized persons. In a warehouse with ammonium nitrate it is strongly forbidden to smoke, weld, use open flame and store materials that can react violently with ammonium nitrate or are combustible, e.g.: reducing agents, metal oxides, powdered metals, alkalis, acids, organic materials (e.g. straw, oil, grease). Protect from direct sunlight and heating above 30°C. Do not store ammonium nitrate with other fertilisers.

In one storage room no more than 300 tonnes of ammonium nitrate are allowed to be stored. The number of rooms in the warehouse is unlimited. Fertiliser in packages not exceeding 50kg can be stored in stacks having maximum twelve layers. Elastic containers (big bag type) which do not exceed mass of 600 kg of weight should be stored in stacks consisting of maximum two layers.

PULAN<sup>®</sup> should be stored on the floor made of incombustible materials and protected from dampness. The minimum distance of stacks from warehouse walls should not be less than 0,2 m and not less than 1,5 m from heat sources.

#### 6. TRANSPORT

PULAN<sup>®</sup> 34,4N <sup>(</sup>Ammonium nitrate) belongs to class 5.1 "Oxidizing substances", UN number: 2067 with respect to ADR/RID regulations.

#### 7. ANALYTICAL METHODS

#### 7.1. TESTING SCHEDULE – see Table 2

Table 2

| No. | Test description   | Test description as per: |  |
|-----|--|--------------------------|--|
| 1.  | General requirements checking                              | 7.4.                     |  |
| 2.  | Determination of total nitrogen content                    | 7.5.                     |  |
| 3.  | Determination of loss on drying at $(105 \pm 3)^{\circ}$ C | 7.6.                     |  |
| 4.  | Particle size analysis                                     | 7.7.                     |  |

#### 7.2. BATCH SIZE

A batch of ammonium nitrate means single shipment of tank vehicle/tank wagon to a customer, however, it must contain not more than 500 tons of ammonium nitrate.

#### 7.3. SAMPLING

Perform according to PN-EN1482-1:2008 standard.

#### 7.4. GENERAL REQUIREMENTS CHECKING

Testing for compliance with general requirements is performed visually.

#### 7.5. DETERMINATION OF TOTAL NITROGEN CONTENT

Perform according to PN-C-87054:2000 standard.

#### 7.6. DETERMINATION OF LOSS ON DRYING AT (105 ± 3)℃

Perform according to PN-C-87054:2000 standard.

#### 7.7. PARTICLE SIZE ANALYSIS

Perform according to PN-C-87083:1999 standard.

#### 7.8. RESULTS EVALUATION AND TEST CERTIFICATE.

A batch of PULAN<sup>®</sup> shall be considered to meet the requirements of this Technical Specification if test results conform with the requirements indicated in Table 1.

The quality control certificate confirms compliance of the test results with the requirements of this Technical Specification.

#### 3. REFERENCES



#### **TECHNICAL SPECIFICATION**

### PULAN® AMMONIUM NITRATE

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- PN-C-87054:2000 Fertilisers Straight nitrogen fertiliser of high nitrogen content containing ammonium nitrate. Ammonium nitrate.
- PN-C-87083:1999 Fertilisers Straight nitrogen fertiliser of high nitrogen content containing ammonium nitrate. Sieve analysis.
- PN-EN1482-1:2008 Fertilisers and liming materials. Sampling and sample preparation.
- Regulation (EC) no 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers.
- Regulation (EC) no 1272/2008 (CLP) of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (REACH).
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) concluded at Geneva on the 30<sup>th</sup> September 1957 with further amendments.
- Convention concerning International Carriage by Rail (COTIF), Appendix C Regulation concerning the International Carriage of Dangerous Goods by Rail (RID)
- Act dated on 19<sup>th</sup> August 2011 relating to transportation of dangerous goods (Dz.U.2011 No. 227 position 1367)

#### 9. ADDITIONAL INFORMATION

WT-2013/ZA-4/1 supersedes WT-2013/ZA-4