

TECHNICAL SHEET 9 A /KA/12/2004 for ammonium nitrate

1 PRODUCT NAME

- a) trade - ammonium nitrate
- b) systematic - ammonium nitrate
- c) in English - ammonium nitrate
- d) in French - nitrate d'ammonium
- e) in German - Ammoniaknitrat

2 DEGREE OF PURITY - commercial

3 FORM - solid-state

4 CHEMICAL FORMULA

- a) molecular NH_4NO_3
- b) molecular weight 80,088 (1962 r.)

5 GENERAL CHARACTERISTIC

Ammonium nitrate is a hygroscopic, easily water-soluble substance. It supports burning. It decays when heated above 185 °C.

6 APPLICATION

Ammonium nitrate is used in agriculture as a fertilizer.

7 TECHNICAL REQUIREMENTS – acc. to table 1.

7.1 Test of resistance to detonation

Manufacturer shall ensure the fertilizer has passed test of resistance to detonation described in Regulation (EC) No 2003/2003 of the European Parliament and of Council of 13 October 2003 relating to fertilisers.

Table 1

No	Requirements		Test method
1	^{*)} Total nitrogen, % (m/m)	34,0 ± 0,6 ^{**)}	Method 2.2.3 of Annex IV of Regulation (EC) No 2003/2003
2	Determination of oil retention at 25 °C and 50 °C, % (m/m), not more than	4	p.1.1 and p.3 (1 and 2 methods) of Annex III of Regulation (EC) No 2003/2003
3	Content of combustible ingredients as C, % (m/m), not more than	0,2	p.1.2 and p.3 (3 method) of Annex III of Regulation (EC) No 2003/2003
4	Determination of pH, not less than	4,5	p.1.3 and p.3 (4 method) of Annex III of Regulation (EC) No 2003/2003
5	Particle - size distribution - less than 1 mm, % (m/m), not more than - less than 0,5 mm, % (m/m), not more than	5 3	p.1.4 and p.3 (5 method) of Annex III of Regulation (EC) No 2003/2003
6	Chlorine content as chlorides (Cl ⁻), % (m/m), not more than	0,02	p.1.5 and p.3 (6 method) of Annex III of Regulation (EC) No 2003/2003
7	Copper content (Cu), mg/kg, not more than	10	p.1.6 and p.3 (7 method) of Annex III of Regulation (EC) No 2003/2003

^{*)} Total nitrogen consists of both forms in the ratio 50 %/50 %.
^{**)} Tolerances acc. to p.1.1 of Annex II of Regulation (EC) No 2003/2003

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8 TAKING AND PREPARATION OF SAMPLES FOR DETERMINATIONS - acc. to EN 1482:1996.**9 PACKING**

- bags (polyethylene), 50 kgs each,
- big-bags (double) 500-1000 kgs each.

10 STORING

Ammonium nitrate should be stored in clean, dry and permeable to air compartments of moisture-proof foundation.

The ammonium nitrate bags should be bid horizontally on a dry, smooth and hardened surface maximum in 12 layers high.

The quantity of one pil may not exceed 30 tons and the distance between them should be 1 m at least. In one compartment should not be stored more than 300 tons.

Smoking and fire usage are not allowed in these compartments and the conductors should be protected well.

There should be no flammable materials and these what can react with ammonium nitrate, for example: crop protection products, metal oxides, acids, powdered metals, carbon, wood, sawdust, fuel, oils and lubricants.

Ammonium nitrate is to be protected from:

- water action and precipitations
- direct insolation
- mechanical damage of packing
- become heated above 30 °C.

11 TRANSPORT

The packed fertilizer should be transported in any way (car or rail). This way guarantee, that product will be delivered in good condition.

Means of transport assigned for carriage the packed fertilizer and in bulk , should be clean, dry and tight.

In case of packed fertilizer means of transport should be protected before damage of packages.

Packages (elementary, means of transport) and unit packages necessary set near by, disposing uniformly on the whole means of transport surface. A cargo should be compact to avoid shifting and mutual damage.

Units load set in layers up to limit of the load capacity.

APPROVED BY

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D Y R E K T O R
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