

SAFETY DATA SHEET



according to EC Directive 2001/58/EC

Date of issue: 30-01-2003

revised on: 06.12.2004

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Trade name: WUXAL® Multiplant

Product-No.: 21986

1 Company

Manufacturer/Supplier: AGLUKON Spezialdünger GmbH & Co. KG Telephone: +49 (0)211 5064-0
Address: Heerdtter Landstraße 199 Telefax: +49 (0)211 5064-247
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2 Composition/Information on Ingredients

Preparation: NK-fertilizer suspension 27-5 with micronutrient

Description: Aqueous suspension of nutrient salts.

Use: Fertilizer, preparation for plant nutrition

Harmful components:

<u>Marking</u>	<u>CAS-No.</u>	<u>Content (%)</u>	<u>Danger symbol</u>	<u>R-phrases</u>
Ammonium nitrate	6484-52-2	10 — 45	O: Oxidizing	8-9

Additional information: Full text of R-Phrases: see under section 16.
The fertilizer composition is no hazardous preparation.

3 Hazards Identification

Hazards designation: None.
No hazardous product as specified in Directive 67/548/EEC.

Particular hazards (R-phrases): None

Harmful effects/symptoms: In event of fire, the formation of nitrous gases is possible.

Additional information: Preparation as a suspension harmless, but danger of explosion in the dry state if in mixture with inflammable materials.

4 First-Aid Measures

General hints: Remove soiled clothes.

after inhalation of vapours/aerosols: Take out to the fresh air, rest quiet and warm. Medical assistance is necessary in case of difficulty in breathing.

after skin contact: Immediately wash affected skin regions thoroughly with soap and plenty of water. Summon doctor if necessary.

after eyes contact: Thoroughly rinse eyes with lids wide apart under running water (protect the uninjured eye, remove contact lenses). Summon eye specialist if necessary.

after ingestion: Immediately rinse the mouth with water, then drink a lot of water. Consult the doctor in case of persistent trouble.

General hints: Remove soiled clothes.

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5 Fire-Fighting Measures

Suitable extinguishing media: Water

Unsuitable extinguishing media: Do not use chemical extinguishers or foams or attempt to smother the fire with steam or sand.

Special risks: Preparation as a suspension harmless, but danger of explosion in the dry state if in mixture with inflammable materials.
The material itself is hardly inflammable. Ambient fire may liberate hazardous vapours. If larger quantities of the product are on fire, the formation of nitrous gases, ammonia is possible.

Special equipment to protect firefighters: Do not stay in dangerous zone without suitable protecting clothes and selfcontained breathing apparatus.

Other information: Contain escaping vapours with water.
Prevent fire-fighting water from entering surface water or groundwater.

6 Accidental Release Measures

Personal precautions: Wear suitable protecting clothes. Avoid product contact and formation of vapours/aerosols. Do not inhale vapours/aerosols. In event of vapours/aerosols wear respiratory protection, safety glasses and gloves.

Specific hazards: The material itself is harmless and hardly inflammable as. Ambient fire may liberate hazardous vapours. If larger quantities of the product are on fire, the formation of nitrous gases, ammonia is possible.

Special equipment to protect firefighters: Do not stay in dangerous zone without suitable protecting clothes and selfcontained breathing apparatus.

Other information: Contain escaping vapours with water.
Prevent fire-fighting water from entering surface water or groundwater.

Environmental precautions: Ensure that the product does not reach the ground-water, water bodies or the drainage system.

Methods for cleaning up/taking up: Take up with absorption media;. Disposal of contaminated material as waste according to section 13.

7 Handling and Storage

Handling

Advice as to safe handling: Wear suitable protecting clothes. Avoid product contact and formation of vapours/aerosols. Do not inhale vapours/aerosols. In event of vapours/aerosols wear respiratory protection, safety glasses and gloves.
Remove soiled and soaked clothes and wash hands and face after work (see section 8).

Advice to prevent fire and explosion: Product rests to be cleared away by rinsing with water before starting fire and hot works on containers and devices. Fire and hot works can only be carried out by an expert after previous permission in writing or under permanent supervision of an expert.
Pumps must be so constituted and used that no hazardous reactions can occur. Pumps without stuffing boxes to be used only. Crystallized product to be dissolved again with plenty of water.

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Storage

Stockrooms and containers required: It is recommended to design stockrooms so that the product is well-protected from weather factors, solar radiation, heat up, dry up and impurities. Keep stockrooms free from fireplaces and other ignition sources. Keep containers densely closed and store in a cool dry place. To fight a fire and decomposition keep care of a sufficient water supply. Ensure high standard of housekeeping in the storage area. Do not store in metal containers (corrosion risk). Temperature in stockrooms not below +5 °C and above +40 °C.

Storage together with other materials:

Do not store together with:
- strong alkaline materials,
- strong acid materials,
- combustible materials,
- substances, which form perilous reactions with ammonium nitrate.
Do not store together with food and luxury food, beverage and animal feed.
More information see section 10.

8 Exposure Controls / Personal Protection

Exposure limits

The preparation contains no constituents with occupational exposure limits resp. biological occupational exposure limits requiring monitoring.

Personal protective equipment

Respiratory protection: Not required. Respiratory protection necessary at vapour/aerosol and wet fog formation.
Hand protection: Rubber or plastic gloves
Eye protection: Safety goggles
Skin and body protection: Closed working clothes
Preventive and hygiene measures: Do not eat and drink at work. Remove immediately soiled and soaked clothes. Wash hands and face after work.

9 Physical and Chemical Properties

Appearance

Form/physical state: Aqueous crystal suspension
Colour: Olive-green
Odour: Product-specific

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Data relevant to safety

Method:

pH (original state):	Approx. 6	
pH at 16 g/l H ₂ O and 20° C:	Approx. 7	
Change in physical state:	> 100° C evaporation of water	
Boiling point/-range:	Not determined	°C
Melting point/-range:	Not determined	°C
Flash point:	Not applicable	°C
Inflammability:	Not determined	
Ignition temperature:	Not determined	°C
Self-ignition:	The product is not spontaneously inflammable.	
Fire-promotive properties:	The product is not fire-promotive.	
Explosion hazard:	The product has no explosion hazardous properties.	
Vapor pressure (at °C):	Not determined	hPa
Density (at 20°C):	approx. 1,4	g/cm ³
Solubility in water (at 20°C):	Approx. 200	g/l

10 Stability and Reactivity

Conditions to avoid:	Direct solar radiation, heat up and dry up. Temperatures above +40° C.
Materials to avoid:	Strong alkaline materials, as alkalis, calcinated lime, slaked lime, cement, strong acid materials, as all acids, chlorate, chlorite, hypochloride, nitrite, combustible materials, as coal dust, oil, fuel, organic peroxide, metal powder, grain, paper, wood fiber, hay, straw, combustible packing materials.
Hazardous decomposition products:	Reacts with alkalis setting ammonia free.
Thermic decomposition products:	If larger quantities of the product are on fire, the formation of nitrous gases, ammonia gases is possible.
Further information:	No decomposition if correctly used. The product is stable under normal conditions.

11 Toxicological Information

Toxicological tests

Acute toxicity	Toxicological data are not available. Toxicological effects are unknown. <u>Property that must be anticipated on the basis with comparable preparations:</u> LD50 (oral, rat): >10.000 mg/kg <u>The following applies to ammonium nitrate:</u> LD50 (oral, rat): 4820 mg/kg. <u>The following applies to potassium nitrate:</u> LD50 (oral, rat): 3750 mg/kg .
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Further toxicological information

After inhalation of aerosols: Slight irritations of the mucous membranes and coughing.

After skin contact: Slight irritations.

After eye contact: Slight irritations.

After swallowing: Nausea and vomiting.

After uptake of large quantities: diarrhoea, disturbed electrolyte balance.

The following applies to nitrates in general:
methaemoglobinaemia after the uptake of large quantities.

Further data

Further hazardous properties cannot be excluded.

The product should be handled with the care usual when dealing with chemicals.

No toxicological effects are to be expected when the product is handled and used with due care and attention.

12 Ecological Information

General information: Fertilizer material.

Ensure that the product does not reach the ground-water, water bodies or the drainage system.

Further ecologic data: Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of drinking- water supplies.

The following applies to ammonium ions in general:

biological effects: fish: toxic as from 0.3 mg/l ;
animal nourishment for fish: toxic as from 0.3 mg/l .

No ecological problems are to be expected when the product is handled and used with due care and attention.

Water pollution class: WGK 1 - slightly water polluting preparation (~~self classification~~)

13 Disposal Considerations

Product

Recommendation: Disposal of product rests in accordance with the official local disposal regulations.

According to european waste regulations:

Waste Code (EWC-No.): 061000

Waste Name: Wastes from the manufacture, formulation, supply and use of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture.

Contaminated packaging

Recommendation: Disposal of contaminated packages in accordance with the local official disposal regulations.

Cleaners: Water

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14 Transport Information

Surface transport: No hazardous good.

River transport No hazardous good.

Sea navigation transport: No hazardous good.

Air transport: No hazardous good.

Further information: The transport regulations are cited according to international regulations and in the form applicable in Germany (GGVS/GGVE). Possible national deviations in other countries are not considered.

15 Regulatory Information

Labelling according to EC Directives

Danger symbol and designation: No labelling duty according to the EC-Hazardous Materials Regulation.

contains R-phrases: None

contains S-phrases: None

National regulations Germany

Particular labelling of certain preparations: According to the Hazardous Materials Regulation (Germany): „Fertilizer with ammonium nitrate, Group D“

Employment limitations: None

Interference regulations: None

Classification according to VbF: None

Technical Regulations Air: None

Storage class according to VCI-concept: 12 Liquid product with no fire risk.

Water pollution class: WGK 1 - slightly water polluting preparation (~~self-classification~~)

Further regulations, limitations and prohibition regulations: None

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16 Other information

Relevant R-Phrases (Number and full text)

For section 2:	R 8	Contact with combustible material may cause fire.
	R 9	Explosive when mixed with combustible material.

Reason for alteration

Addition in the chapter toxicology.
Addition in the chapter ecology.
General update.

Further information:

Data sheet writing department:	Development Special Fertilizers	
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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.