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SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:** **Calcium Ammonium Nitrate**

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Sector of Use**
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Further customer use: None.
· **Product category** PC12 Fertilisers
· **Process category**
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC11 Non industrial spraying
PROC15 Use as laboratory reagent
PROC19 Manual activities involving hand contact
· **Environmental release category**
ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
· **Application of the substance / the mixture** Fertilizer

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Manufacturer:
AB Achema
Jonalaukio k.
Ruklos sen.
LT-55296
Lithuania
Tel. No.: + 370 349 56736

Only Representative in UK:
DEKRA UK Limited
Phi House
Southampton Science Park
Southampton, SO16 7NS
United Kingdom

· **Informing department:** Product Safety Department

· **1.4 Emergency telephone number:**
National Poisons Information Service
Emergency number: +44 844 892 0111

Poisons Information Centre of Ireland
+353 1 837 9964 for medical professionals
+353 1 809 2166 for public inquiries

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SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

Eye Irrit. 2 H319 Causes serious eye irritation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS07

· **Signal word** Warning
· **Hazard statements**
H319 Causes serious eye irritation.
· **Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep/Store away from clothing/reducing agents/acids/alkali/sulphur/chlorates/ chlorides/ nitrates/permanganates/powder of metals and materials containing metals as follows: copper, nickel, cobalt, zinc and their alloys/combustible materials.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use water to extinguish.

· **Additional information:**
Product contains: Restricted explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 5 (1) and (3).
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

*
SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Mixture consisting of the following components.

· **Dangerous components:**		
CAS: 6484-52-2 EINECS: 229-347-8 Reg.nr.: 01-2119490981-27-XXXX	ammonium nitrate Ox. Sol. 3, H272; Eye Irrit. 2, H319	76.0 – 78.3%

· **Non-dangerous components**		
CAS: 16389-88-1 EINECS: 240-440-2	dolomite	≥ 20%

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· ***Additional information*** For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

· ***4.1 Description of first aid measures***
· ***After inhalation***
Remove from further exposure.
Supply fresh air; consult doctor in case of symptoms.
· ***After skin contact***
Remove contaminated clothing.
Wash with water and soap.
· ***After eye contact***
Rinse/irrigate eyes with plenty of water for at least 10 minutes.
Seek immediate medical advice.
· ***After swallowing***
Do not induce vomitting.
Give the affected person some water or milk to drink.
Consult doctor.
· ***4.2 Most important symptoms and effects, both acute and delayed***
No further relevant information available.
· ***After skin contact:*** May be irritant to skin and mucous membranes.
· ***After eye contact:*** eye irritation
· ***After swallowing:***
The product is not acutely toxic. Possible symptoms are: nausea, vomiting, possible fainting.
· ***4.3 Indication of any immediate medical attention and special treatment needed***
In case of inhalation of decomposition products:
If blue colouring appears (lips, ear-lobes, finger-nails), oxygen respiration treatment as quickly as possible.
Seek immediate medical advice
Delayed effects possible after inhalation.

*
SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents***
Use fire fighting measures that suit the environment.
Use plenty of water: water jet or water spray.
· ***For safety reasons unsuitable extinguishing agents***
ABC powder
Carbon dioxide
nitrogen gas
Foam.
· ***5.2 Special hazards arising from the substance or mixture***
May be explosive in contact with flammable or organic substances and at confinement during fire.
In case of burning or thermal decomposition product releases poisonous and corrosive gases/ fumes.
Nitrogen oxides (NOx)
ammonia
· ***5.3 Advice for firefighters***
· ***Protective equipment:***
Wear self-contained breathing apparatus.
Do not inhale explosion gases or combustion gases.
Wear full protective suit.
· ***Additional information*** Ensure adequate ventilation

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SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures***
Not required.
Use breathing protection against the effects of fumes/dust/aerosol.
Keep away from sources of ignition - No smoking.
Minimise the formation and accumulation of dust.
Do not touch or walk through spilt material.
· ***For emergency responders***
Ensure adequate ventilation
Wear suitable protection equipment.
· ***6.2 Environmental precautions:*** Do not allow to enter drainage system, surface or ground water.
· ***6.3 Methods and material for containment and cleaning up:***
Collect mechanically.
Dispose of the material collected according to regulations.
Do not let the fertilizer to be mixed up with sawdust and oil lubricants.
Dilute collected small fertilizer particles mixing them with inert materials (limestone, dolomite, mineral phosphates, gypsum, sand) or dissolve in water.
· ***6.4 Reference to other sections***
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

*
SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
No special precautions necessary if used correctly.
Prevent formation of dust.
Avoid contact with impurities and incompatible substances (see capter 10).
Wear suitable protection equipment.
Wash hands before breaks and at end of work.
· ***Information about protection against explosions and fires:***
Keep away from sources of ignition - do not smoke.

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage***
· ***Requirements to be met by storerooms and containers:***
Storage according to local standards.
Store in a cool, dry and light-protected place.
Ensure sufficient ventilation.
Protect from moisture.
Keep container tightly closed and store upright to prevent any spill of product.
Avoid temperatures above 30°C.
No smoking!
Packing materials: Calcium ammonium nitrate is packaged in polyethylene, polypropylene, paper bags, boxes, bags, big bags, steel, aluminum or other containers. Unpackaged fertilizers can be loaded with rain-fed and moisture-proof means of transport or by the buyer's container to ensure safe transportation of the product. A container that has zinc or copper can't be used.
· ***Information about storage in one common storage facility:***
A sufficient distance must be maintained between piles of bulk product to prevent contamination of the product with other substances.
The height of piles of bulk fertilizers or stacks of pre-packaged fertilizers must be such that there is a distance of at least 1 m between them and the ridge, beams and lamp holders. The size of the fertilizer piles depends on the layout of the warehouse; however, they must be stacked in such a way that there is a gap of at least 3 m around them for access with vehicles to organize unloading in the event of emergency.

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· ***Further information about storage conditions:***
During the cold season (16 September to 15 April), the pre-packaged product may be stored in closed, covered (roofing may not have transparent inserts or skylights), dry, ventilated and clean warehouses or outdoors, protected from direct sunlight, atmosphere precipitation, moisture (rain, snow; the bag must not be placed in water and water must not accumulate on the bag).
During the cold season (16 September to 15 April), the bulk product may be stored in closed, covered (roofing may not have transparent inserts or skylights), dry, ventilated and clean warehouses. During the cold season, the bulk product may not be stored outdoors.
During the warm season (16 April to 15 September), the pre-packaged product may be stored in closed, covered (roofing must not have transparent inserts or skylights), dry, ventilated and clean warehouses. During the warm season, the pre-packaged product is not allowed to be stored outdoors or under tents in order to avoid the greenhouse effect.
During the warm season (16 April to 15 September), the bulk product may be stored in closed, covered (roofing may not have transparent inserts or skylights), dry, ventilated and clean warehouses. During the warm season, the bulk product is not allowed to be stored outdoors or under tents in order to avoid the greenhouse effect. During the warm season, the bulk product is not allowed to be stored outdoors or under tents in order to avoid the greenhouse effect.
Product big bags are stored in an upright position, stacked on pallets without protruding nails, wood screws, wood chips or other sharp objects that could damage the big bag.
During the cold season (16 September to 15 April), the product pre-packaged in big bags of 500 kg and stored in stacks may not be stacked on top of each other in more than 4 rows. When using larger bags (up to 750 kg), the number of rows to be stacked must not exceed 3.
During the warm season (16 April to 15 September), the product pre-packaged in big bags of 500 kg and stored in stacks may not be stacked on top of each other for more than 3. When larger bags are used, the number of rows to be stacked must not exceed 3.
Pre-packaged and bulk product must not be stored at temperatures above 30°C.
The product must be stored away from heat sources or flames, protected from flammable substances, reducers, acids, alkalis, sulphur, chlorates, chlorides, chromates, nitrites, permanganates, metal powders (especially zinc), substances containing copper, nickel, cobalt, zinc or their alloys. Avoid storing the product in hot rooms or in direct sunlight, damaging the product packaging, getting moisture into the product, contamination with incompatible materials (fertilizers and other substances containing elemental sulphur, urea, nitrogen phosphor potassium, nitrogen phosphor and/or nitrogen potassium urea-based fertilizers), lubricants, flammable substances. On farms using these fertilizers, it must be ensured that they are not stored together with hay, straws, crop, diesel fuel, lubricants.
Any building used for storage must be well ventilated. Fertilizers must not be stored outdoors in order to avoid deterioration of their physical properties due to thermal cycles in the fertilizer and atmospheric humidity caused by direct sunlight.

· ***7.3 Specific end use(s)*** Fertilisers

*
SECTION 8: Exposure controls/personal protection

· ***8.1 Control parameters***

· ***Components with limit values that require monitoring at the workplace:***
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· ***DNELs***		
6484-52-2 ammonium nitrate		
Oral	DNEL (consumer, long-term, systemic)	2.56 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	5.12 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	2.56 mg/kg bw/day (human)
Inhalative	DNEL (worker, long-term, systemic)	36 mg/m³ (human)
	DNEL (consumer, long-term, systemic)	8.9 mg/m³ (human)

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· ***PNECs***	
6484-52-2 ammonium nitrate	
PNEC STP	18 mg/L 18 mg/L (.)

· ***Additional information:*** The lists that were valid during the compilation were used as basis.

· ***8.2 Exposure controls***

· ***Individual protection measures, such as personal protective equipment***

· ***General protective and hygienic measures***

Ensure good ventilation/exhaustion at the workplace.
Avoid dust generation.
Do not inhale dust / smoke / mist.
Keep away from foodstuffs, beverages and food.
Take off all contaminated clothing immediately.
Wash hands during breaks and at the end of the work.
Avoid direct contact with eyes, skin and clothing.
Shower or take a bath at the end of the work.
In addition to the places where the product is stored or recycled, have a shower.

· ***Breathing equipment:***

Not required.
In the event of an accident (for example, accidentally pouring the product), wear mask P3.

· ***Hand protection***

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
After use of gloves apply skin-cleaning agents and skin cosmetics.

· ***Material of gloves***

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Protective gloves must be made of one of the matials listed, at least as specified, for penetration of thickness and resistance.

(Glove material, Glove thickness in mm, Penetration time of glove material in min)

Nitrile rubber/Nitrile latex, 0.35, > 480
Polychloroprene, n.m. 0.50, > 480
Natural rubber/Natural latex, 0.50, > 480
Polyvinyl chloride, 0.50, > 480

Skin protection creams do not adequately protect from the product.
When working at a higher temperature, the resistance of the glove material may be considerably lower, and in such cases, the permitted life of the glove must be shortened. We recommend that when you start using a new type or other manufacturer's gloves, make sure that they are chemically and mechanically resistant to working conditions. If you have any questions about the suitability of the gloves, please contact the manufacturers / suppliers of gloves.
The inside of the gloves should not contain powders which can cause hand skin allergies.
Before using the gloves, please always make sure there are no tears, cracks, or other defects.
When the work is finished, the gloves must be cleaned and washed thoroughly before they are dry.

· ***Penetration time of glove material***

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· ***Eye/face protection***

Tightly sealed safety glasses.

Chemical protective safety goggles according to EN 166 or face shield according to EN 166.

· ***Body protection:***
Boots
Protective work clothing.

*

SECTION 9: Physical and chemical properties

· ***9.1 Information on basic physical and chemical properties***

· ***General Information***

· ***Physical state***	Solid
· ***Colour:***	Grey
· ***Odour:***	odourless
· ***Odour threshold:***	Not determined.
· ***Melting point/freezing point:***	160 - 170 °C
· ***Boiling point or initial boiling point and boiling range***	Not determined
· ***Flammability***	Not determined. Calcium ammonium nitrate with less then 0.2% combustible substances has no explosive properties. However, this alkali nitrate does not contain groups that may react with oxygen, thus is not expected to propagate combustion along a test substance pile, and is therefore considered not flammable.
· ***Lower and upper explosion limit***	
· ***Lower:***	non-explosive
· ***Upper:***	Not determined.
· ***Flash point:***	Not applicable
· ***Self-inflammability:***	Product is not selfigniting.
· ***Decomposition temperature:***	>210 °C
· ***SADT***	
· ***pH***	> 4.5 (with 10 % in water)
· ***Viscosity:***	
· ***Kinematic viscosity***	Not applicable.
· ***dynamic:***	Not applicable.
· ***Solubility***	
· ***Water:***	Partly soluble
· ***Partition coefficient n-octanol/water (log value)***	Not determined.
· ***Vapour pressure:***	Not applicable.
· ***Density and/or relative density***	
· ***Density***	Not determined
· ***Relative density***	Not determined.
· ***Settled apparent density***	900 - 1,100 kg/m³ (EN 680)
· ***Vapour density***	Not applicable.

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· ***9.2 Other information***

· ***Appearance:***	
· ***Form:***	Substrat / Granulates Product granulomere: at least 95 % granules of 2 – 5 mm size.
· ***Important information on protection of health and environment, and on safety.***	
· ***Explosive properties:***	Product is not explosive.
· ***VOC EU***	
· ***Solids content:***	100.0 %
· ***Change in condition***	
· ***Evaporation rate***	Not applicable.

· ***Information with regard to physical hazard classes***	
· ***Explosives***	Void
· ***Flammable gases***	Void
· ***Aerosols***	Void
· ***Oxidising gases***	Void
· ***Gases under pressure***	Void
· ***Flammable liquids***	Void
· ***Flammable solids***	Void
· ***Self-reactive substances and mixtures***	Void
· ***Pyrophoric liquids***	Void
· ***Pyrophoric solids***	Void
· ***Self-heating substances and mixtures***	Void
· ***Substances and mixtures, which emit flammable gases in contact with water***	Void
· ***Oxidising liquids***	Void
· ***Oxidising solids***	Void
· ***Organic peroxides***	Void
· ***Corrosive to metals***	Void
· ***Desensitised explosives***	Void

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SECTION 10: Stability and reactivity

· ***10.1 Reactivity*** Under normal conditions of use and storage (dry) the product is stable.

· ***10.2 Chemical stability***

Stable under recommended storage and handling conditions (see section 7, handling and storage).

· ***Information on the shelf life***

Warranty period is 12 months from the date of manufacture when the product is stored in warehouse and the warranty period is 10 months from the date of manufacture when the product is stored outdoors.

· ***Thermal decomposition / conditions to be avoided:***

No decomposition if used according to specifications.

· ***10.3 Possibility of hazardous reactions***

Contact with alkali releases toxic gases
Toxic fumes may be released if heated above the decomposition point
When heated above the fixed limits (over 170°C) may cause an explosion.

· ***10.4 Conditions to avoid***

All sources of ignition: heat, sparks, open flame, electostatic discharges.
Temperatures greater than 30 °C.
Protect from moisture.

· ***10.5 Incompatible materials:***

Pollutions, metals, metal salts, alkalis, acids, reducing agents (danger of decomposition), combustible substances

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Organic N, P, K - fertilizer
permanganate
chlorates
chlorides
sulphur
chromate
Zinc
metal powder
Do not store together with urea

· **10.6 Hazardous decomposition products:**
None in case of intended use and storage in compliance with instructions.
Can be released in case of fire:
Nitrogen oxides (NOx)
Ammonia

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity**

· LD/LC50 values that are relevant for classification:		
6484-52-2 ammonium nitrate		
Oral	LD50	2,950 mg/kg (rat) (OECD 401)
Dermal	LD50	> 5,000 mg/kg (rat) (OECD 402)

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Causes serious eye irritation.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

· **11.2 Information on other hazards**

· Endocrine disrupting properties
None of the ingredients is listed.

*

SECTION 12: Ecological information

· **12.1 Toxicity**

· Aquatic toxicity:	
6484-52-2 ammonium nitrate	
EC50	490 mg/l/24h (Daphnia magna)
EC50	490 mg/l/48h (Daphnia magna)
	447 mg/l/48h (Cyprinus carpio)
EC50	226 mg/l/72h (Daphnia magna)

· **12.2 Persistence and degradability** Not applicable.
· **Other information:**
In the anaerobic transformation of ammonium, one group of bacteria oxidizes ammonium to nitrite while another group oxidizes nitrite into nitrate. The average biodegradation rate in wastewater plant at 20 ºC is 52 g N/kg dissolved solid/day. Nitrate degradation is fastest in anaerobic conditions. In the anaerobic transformation of nitrate into N2, N2O and NH3, the biodegradation rate in wastewater plant at 20 ºC is 70 g N/kg dissolved solid/day.

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· ***12.3 Bioaccumulative potential*** Does not accumulate in organisms
· ***12.4 Mobility in soil*** No further relevant information available.
· ***12.5 Results of PBT and vPvB assessment***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.
· ***12.6 Endocrine disrupting properties***
The product does not contain substances with endocrine disrupting properties.
· ***12.7 Other adverse effects***

· ***Behaviour in sewage processing plants:***	
6484-52-2 ammonium nitrate	
EC50	> 1,000 mg/l/3h (Bacteria) (OECD 209)
NOEC (3h)	180 mg/l/3h (Bacteria) (OECD 209)

· ***Additional ecological information:***
· ***General notes:***
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

*
SECTION 13: Disposal considerations

· ***13.1 Waste treatment methods***
Product waste according to Regulation (EU) No. 1357/2014 are classified as hazardous waste.
Uncontaminated waste can be used as bulk fertilizer or must be transferred to waste handling companies.
· ***Recommendation***
Dispose of contents/container in accordance with local/regional/national/international regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· ***European waste catalogue***	
HP4	Irritant - skin irritation and eye damage

· ***Uncleaned packagings:***
· ***Recommendation:***
Dispose of packaging according to regulations on the disposal of packagings.
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
Waste packaging within the product containing 20% or more by weight of the product according to Regulation (EU) No. 1357/2014 are classified as hazardous waste.
· ***Recommended cleaning agent:*** Water, if necessary with cleaning agent.

*
SECTION 14: Transport information

· ***14.1 UN number or ID number***
· ***ADR/ADN, IMDG, IATA*** Void

· ***14.2 UN proper shipping name***
· ***ADR/ADN, IMDG, IATA*** Void

· ***14.3 Transport hazard class(es)***

· ***ADR/ADN, ADN, IMDG***
· ***Class*** Void

· ***IATA***
· ***Class*** Void
Not Restricted.

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· ***14.4 Packing group*** · ***ADR/ADN, IMDG, IATA***	Void
· ***14.5 Environmental hazards:***	Not applicable.
· ***14.6 Special precautions for user***	Not applicable.
· ***14.7 Maritime transport in bulk according to IMO instruments***	Not applicable.
· ***Transport/Additional information:***	Not dangerous according to the above specifications. When transporting the product pre-packaged in big bags of 500 kg during the cold season (from 16 September to 15 April), they may be stored in stacks on top of each other in 6 rows for a short period (up to 8 days). During such transportation the fertilizer may stick to easily crumbling pieces. When transporting the product pre-packaged in big bags of 600 kg during the cold season (from 16 September to 15 April), they may be stored in stacks on top of each other in 5 rows for a short period (up to 8 days). During such transportation the fertilizer may stick to easily crumbling pieces. When transporting the product pre-packaged in big bags of 500 kg by ships during the warm season (16 April to 15 September), they may be stored in stacks on top of each other in 6 rows for a short period (up to 8 days). This way of transportation allows the fertilizer to stick to easily crumbling pieces. When transporting the product pre-packaged in big bags of 600 kg by ships during the warm season (16 April to 15 September), they may be stored in stacks on top of each other in 5 rows for a short period (up to 8 days). This way of transportation allows the fertilizer to stick to easily crumbling pieces. During the warm season (from June to August), when the ambient air temperature exceeds 25 °C, the product pre-packaged in big bags of 500 kg and of 600 kg, are allowed to be transported only by trucks. At that time, it is not allowed to load these fertilizers into semi-trailers and transport them. At that time, the bulk product may be transported by hoppers. If rain starts at the time of loading or unloading of product on a ship, the hold of the vessel must be closed and the loading works must be stopped.
· ***UN "Model Regulation":***	Void

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SECTION 15: Regulatory information

· ***15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture***

· ***National regulations***

· ***Water hazard class:*** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· ***Substances of very high concern (SVHC) according to REACH, Article 57***

None of the ingredients is contained.

· ***15.2 Chemical safety assessment:*** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· ***Relevant phrases***
The phrases specified here are no labelling elements for the product but repeat the properties of the ingredients from section 3.
H272 May intensify fire; oxidiser.
H319 Causes serious eye irritation.

· ***Department issuing data specification sheet:***

DEKRA This Safety Data Sheet has been drawn up in cooperation with:
DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,
phone: (+49) 511 42079 - 0, reach@dekra.com.

· ***Abbreviations and acronyms:***
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Ox. Sol. 3: Oxidizing solids – Category 3
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

· **** Data compared to the previous version altered.***

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Annex: Exposure scenario

· ***Short title of the exposure scenario*** Professional use in formulation of preparations and end-use
· ***Sector of Use***
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Further customer use: None.
· ***Product category*** PC12 Fertilisers
· ***Process category***
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC11 Non industrial spraying
PROC15 Use as laboratory reagent
PROC19 Manual activities involving hand contact
· ***Environmental release category***
ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
· ***Notes***
An environmental assessment has not been performed as the substance does not meet the criteria for being classified as dangerous for the environment.
· ***Description of the activities / processes covered in the Exposure Scenario***
See section 1 of the annex to the Safety Data Sheet.
All Process Categories are covered by this contributing scenario as all Operational Conditions (OCs) and Risk Management Measures (RMMs) are identical.
· ***Conditions of use***
· ***Duration and frequency*** 8hrs (full working shift).
· ***Physical parameters***
· ***Physical state***
Solid
Fluid
· ***Product characteristics:*** low dustiness
· ***Concentration of the substance in the mixture***
The substance is main component.
in case of liquid: >25 % substance in the product
· ***Other operational conditions***
· ***Other operational conditions affecting environmental exposure***
No special measures required.
· ***Other operational conditions affecting worker exposure***
Indoor application.
Outdoor application.
· ***Other operational conditions affecting consumer exposure during the use of the product***
Not applicable.
· ***Risk management measures***
· ***Worker protection***
· ***Organisational protective measures***
Minimize number of staff exposed
Training staff on good practice
Keep good industrial hygiene.
· ***Technical protective measures***
Effective contaminant extraction
Use only in well ventilated areas.

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Segregation of the emitting process
Avoid splashing. Use specific dispensers and pumps specifically designed to prevent splashes/ spills/ exposure to occur.
Store in cool, dry place in tightly closed containers.
Keep away from combustible material.
Keep away from heat and direct sunlight.
Regular cleaning of equipment and work area

· ***Personal protective measures***
Do not inhale dust / smoke / mist.
Avoid contact with the eyes and skin.
Tightly sealed safety glasses.

· ***Measures for consumer protection***
Ensure adequate labelling.
Keep locked up and out of the reach of children.

· ***Environmental protection measures***
· ***Water*** No special measures required.

· ***Disposal measures*** Ensure that waste is collected and contained.
· ***Disposal procedures***
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· ***Waste type*** Partially emptied and uncleaned packaging

· ***Exposure estimation***
The leading toxicological effect is eye irritation (local endpoint), for which no DNEL can be derived as no dose-response information is available. As minimal systemic effects were only noted at such high levels of substance that humans are normally not exposed to (see DNELs), a quantitative assessment is not considered necessary.
· ***Consumer*** Not relevant for this Exposure Scenario.

· ***Guidance for downstream users*** No further relevant information available.