

**SAFETY DATA SHEET****NPK 21-7-11 / NPK 20-10-10 / NPK 22-8-7 + se + mg**

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued 05.03.2020

**1.1. Product identifier**

Product name NPK 21-7-11 / NPK 20-10-10 / NPK 22-8-7 + se + mg

Synonyms Græðir 8, 21-7-11+ se

Information on the packaging Size of packaging: 600 kg

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use of the substance / preparation Fertiliser.

Main intended use PC-FER-1 Fertilisers

Industrial use Yes

Professional use Yes

Consumer use No

**1.3. Details of the supplier of the safety data sheet**

Company name Belor Agro Oy

Office address Salorankatu 5-7

Postcode FI-24240

City Salo

Country Finland

Telephone number +358 500 933 158

Email [info@beloragro.fi](mailto:info@beloragro.fi)

Website <http://www.beloragro.fi>

Enterprise No. FI2132672-0

**1.4. Emergency telephone number**

Emergency telephone Telephone number: 112  
Description: Emergency telephone number (in Finland) Open 24 hours a day.

Identification, comments	<p>Telephone number: +358 800 147 111 or +358 9 471 977</p> <p>Description: Poison Information Centre (in Finland), P.O. Box 790 (Tukholmankatu 17), 00029 HUS Open 24 hours a day.</p> <p>Please contact the Emergency Centre in your own country, e.g. 112 in European Union countries.</p>
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	<p>Ox. Sol. 3; H272</p> <p>Skin Irrit. 2; H315</p> <p>Eye Irrit. 2; H319</p> <p>STOT SE 3; H335</p>
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### 2.2. Label elements

#### Hazard pictograms (CLP)



Composition on the label	Ammonium nitrate, Ammonium chloride
Signal word	Warning
Hazard statements	<p>H272 May intensify fire; oxidiser.</p> <p>H315 Causes skin irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>H335 May cause respiratory irritation.</p>
Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P220 Keep away from clothing and other combustible materials</p> <p>P261 Avoid breathing dust / fume / gas / mist / vapours / spray.</p> <p>P264 Wash hands and exposed skin areas thoroughly after handling.</p> <p>P280 Wear protective gloves / protective clothing / eye protection / face protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P332+P313 If skin irritation occurs: Get medical advice / attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice / attention.</p>

### 2.3. Other hazards

PBT / vPvB	For results of PBT and vPvB assessment, see point 12.5.
Hazard description, general	Material can create slippery conditions with water.
Other hazards	None reported.

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Ammonium nitrate	CAS No.: 6484-52-2 EC No.: 229-347-8 REACH Reg. No.: 01-2119490981-27-XXXX	Ox. Sol. 3; H272 Eye Irrit. 2; H319	60 < 70 %	
Ammonium chloride	CAS No.: 12125-02-9 EC No.: 235-186-4 Index No.: 017-014-00-8 REACH Reg. No.: 01-2119489385-24-XXXX	Acute Tox. 4; H302 Eye Irrit. 2; H319	5 -10 %	
Calcium carbonate	CAS No.: 471-34-1 EC No.: 207-439-9	CLP classification, notes: Not classified.	0 - 5 %	
Description of the mixture	The exact composition depends on the product.			
Substance comments	The full text for all hazard statements are displayed in point 16.			

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

General	If the situation is unclear or symptoms persist, seek medical attention. Show this safety data sheet, product container or label to the doctor in attendance.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin contact	Remove contaminated clothing and shoes. Wash contaminated skin thoroughly with plenty of soap and water. Get medical attention if skin irritation persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes, holding eyelids open. Remove contact lenses, if present and easy to do, and continue rinsing. Seek medical attention if eye irritation persists.
Ingestion	Rinse mouth thoroughly. Give small amounts of water to drink. Do NOT induce vomiting. Get medical attention if nausea or other symptoms occur. Never give anything by mouth to an unconscious person.

### 4.2. Most important symptoms and effects, both acute and delayed

Acute symptoms and effects	Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation. Ingestion may cause irritation of the digestive tract.
Delayed symptoms and effects	None known.

### 4.3. Indication of any immediate medical attention and special treatment needed

Other information	Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	Water spray (fog).
Improper extinguishing media	Powder. Foam. Dry sand. Do not use full water jet as an extinguisher.

## 5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	May intensify fire; oxidiser.
Hazardous combustion products	During fire, toxic gases and vapours may be evolved. Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2).

## 5.3. Advice for firefighters

Personal protective equipment	Wear appropriate protective equipment and self-contained breathing apparatus.
Other information	Take care of fire waste and contaminated extinguishing water in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	Ensure adequate ventilation. Remove all sources of ignition. Keep unnecessary and unprotected people from entering (evacuate upwind from the spill area).
Personal protection measures	Wear appropriate personal protective equipment. Avoid contact with skin or eyes. Avoid breathing dust.

### 6.2. Environmental precautions

Environmental precautionary measures	Prevent release into drains, sewers or waterways.
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### 6.3. Methods and material for containment and cleaning up

Containment	Stop leak if safe to do so.
Clean up	Pick up mechanically. Place in sealable containers for disposal.
Other information	Ventilate the area.

### 6.4. Reference to other sections

Other instructions	Safe handling: see point 7. Personal protective equipment: see point 8. Waste disposal: see point 13.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handling	Use only outdoors or ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Use appropriate personal protective equipment while handling the product (see point 8). Do not swallow. Do not breath dust. Open and handle containers with care. It is recommended that eyewash facilities are available when handling this product.
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### Protective safety measures

Safety measures to prevent fire	Handle and store away from all sources of heat or ignition.
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Advice on general occupational hygiene	Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday. Take off contaminated clothing and wash before reuse.
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## 7.2. Conditions for safe storage, including any incompatibilities

Storage	Store away from all heat and ignition sources, and flammable substances.
Conditions to avoid	Keep away from moisture and water. For incompatible materials see point 10.5.

## Conditions for safe storage

Technical measures and storage conditions	Store in a cool, dry, well-ventilated area.
Requirements for storage rooms and vessels	Store in tightly closed original package or container. Keep containers upright to prevent leakage.

## 7.3. Specific end use(s)

Specific use(s)	The use stated in section 1.2.
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## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Dusts, respirable dust		Limit value (8 h) : 4 mg/m <sup>3</sup>	
Dusts, total inhalable dust		Limit value (8 h) : 10 mg/m <sup>3</sup>	
Control parameters comments	Compliance with the accepted occupational exposure limits values should be controlled on a regular basis.		

### DNEL / PNEC

Substance	Ammonium nitrate
DNEL	<p><b>Group:</b> Professional  <b>Route of exposure:</b> Long-term inhalation (systemic)  <b>Value:</b> 37,6 mg/m<sup>3</sup>  <b>Comments:</b> Repeated dose toxicity</p> <p><b>Group:</b> Professional  <b>Route of exposure:</b> Long-term dermal (systemic)  <b>Value:</b> 21,3 mg/kg bw/day  <b>Comments:</b> Repeated dose toxicity</p> <p><b>Group:</b> Consumer  <b>Route of exposure:</b> Long-term inhalation (systemic)  <b>Value:</b> 11,1 mg/m<sup>3</sup>  <b>Comments:</b> Repeated dose toxicity</p> <p><b>Group:</b> Consumer  <b>Route of exposure:</b> Long-term dermal (systemic)  <b>Value:</b> 12,8 mg/kg bw/day  <b>Comments:</b> Repeated dose toxicity</p> <p><b>Group:</b> Consumer</p>

PNEC	<p><b>Route of exposure:</b> Long-term oral (systemic)  <b>Value:</b> 12,8 mg/kg bw/day  <b>Comments:</b> Repeated dose toxicity</p>
	<p><b>Route of exposure:</b> Freshwater  <b>Value:</b> 0,45 mg/l</p>
	<p><b>Route of exposure:</b> Saltwater  <b>Value:</b> 0,045 mg/l</p>
	<p><b>Route of exposure:</b> Water  <b>Value:</b> 4,5 mg/l  <b>Comments:</b> intermittent releases</p>
Substance	Ammonium chloride
DNEL	<p><b>Group:</b> Professional  <b>Route of exposure:</b> Long-term dermal (systemic)  <b>Value:</b> 128,9 mg/kg bw/day</p>
	<p><b>Group:</b> Professional  <b>Route of exposure:</b> Long-term inhalation (systemic)  <b>Value:</b> 43,97 mg/m<sup>3</sup></p>
	<p><b>Group:</b> Consumer  <b>Route of exposure:</b> Long-term dermal (systemic)  <b>Value:</b> 55,2 mg/kg bw/day</p>
	<p><b>Group:</b> Consumer  <b>Route of exposure:</b> Acute inhalation (systemic)  <b>Value:</b> 9,4 mg/m<sup>3</sup></p>
	<p><b>Group:</b> Consumer  <b>Route of exposure:</b> Long-term oral (systemic)  <b>Value:</b> 55,2 mg/kg bw/day</p>
	<p><b>Group:</b> Consumer  <b>Route of exposure:</b> Acute oral (systemic)  <b>Value:</b> 55,2 mg/kg bw/day</p>
	<p><b>Route of exposure:</b> Freshwater  <b>Value:</b> 0,25 mg/l</p>
PNEC	<p><b>Route of exposure:</b> Saltwater  <b>Value:</b> 0,025 mg/l</p>
	<p><b>Route of exposure:</b> Water  <b>Value:</b> 0,43 mg/l</p>
	<p><b>Route of exposure:</b> Freshwater sediments  <b>Value:</b> 0,9 mg/kg</p>
	<p><b>Route of exposure:</b> Saltwater sediments  <b>Value:</b> 0,09 mg/kg</p>

**Route of exposure:** Soil

**Value:** 0,163 mg/kg

**Route of exposure:** Sewage treatment plant STP

**Value:** 13,1 mg/l

## 8.2. Exposure controls

### Safety signs



### Precautionary measures to prevent exposure

Technical measures to prevent exposure

Ensure adequate ventilation. Use local exhaust ventilation if necessary. It is recommended that eyewash facilities are available when handling this product.

### Eye / face protection

Suitable eye protection

Use tight-fitting safety goggles (EN 166).

### Hand protection

Suitable gloves type

Wear appropriate chemical resistant safety gloves (EN 374).

Suitable materials

Nitrile rubber. Natural rubber.  
Contact glove manufacturer for specific advice on glove selection.

### Skin protection

Suitable protective clothing

Wear appropriate chemical-resistant, impervious protective clothing and footwear.

### Respiratory protection

Respiratory protection necessary at

Wear suitable respiratory protection.  
In case of risk of inhalation of vapours: Wear respiratory protection with combination filter (dust and gas filter).

Recommended type of equipment

Consult with respirator manufacturer to determine respirator selection, use, and limitations.

Recommended respiratory protection

Description: Half-face mask  
Reference to relevant standard: EN 140.  
EN 141.

Description: Full face mask  
Reference to relevant standard: EN 136.

### Appropriate environmental exposure control

Environmental exposure controls

Prevent entry into drains, sewers and waterways.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Form	Solid: granular
Colour	Varying. Light brown. Grey. Pink.
Colour intensity	Light.
Odour	Odourless.
Odour limit	Comments: Not applicable.
pH	Comments: Unknown.
Melting point / melting range	Comments: Unknown.
Boiling point / boiling range	Comments: Unknown.
Flash point	Comments: Not applicable.
Evaporation rate	Comments: Unknown.
Flammability (solid, gas)	Not flammable.
Explosion limit	Comments: Not applicable.
Vapour pressure	Comments: Unknown.
Vapour density	Comments: Not applicable.
Relative density	Comments: Unknown.
Solubility	Medium: Water Comments: Miscible in water.
Partition coefficient: n-octanol/ water	Comments: Not applicable.
Spontaneous combustability	Comments: Not applicable.
Decomposition temperature	Comments: Unknown.
Viscosity	Comments: Not applicable.
Explosive properties	Not classified as explosive.
Oxidising properties	May cause or intensify fire; oxidiser.

### 9.2. Other information

#### Other physical and chemical properties

Comments	None reported.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	Not reactive under normal use and storage conditions.
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### 10.2. Chemical stability

Stability	Chemically stable under normal storage conditions.
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No dangerous reactions under normal use and storage conditions.
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### 10.4. Conditions to avoid

Conditions to avoid	Heat. Keep away from sources of ignition. No smoking.
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### 10.5. Incompatible materials

Materials to avoid	Acids. Bases. Combustible materials. Organic materials. Reducing agents. Metals in powder form, chlorates, chlorites, hypochlorites, sulphur, iron pyrite.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	Harmful compounds may be evolved during fire. Nitrogen oxides (NOx). Ammonia or amines. Nitrous oxide. Carbon monoxide (CO). Carbon dioxide (CO2).
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Substance	Ammonium nitrate
Acute toxicity	<p><b>Effect tested:</b> LD50 <b>Route of exposure:</b> Oral <b>Value:</b> 2950 mg/kg <b>Animal test species:</b> Rat</p> <p><b>Effect tested:</b> LD50 <b>Route of exposure:</b> Dermal <b>Method:</b> OECD 402 <b>Value:</b> ≥ 5000 mg/kg <b>Animal test species:</b> Rat</p> <p><b>Effect tested:</b> LC50 <b>Route of exposure:</b> Inhalation. <b>Duration:</b> 4 hour(s) <b>Value:</b> 88,8 mg/l <b>Animal test species:</b> Rat</p>
Substance	Ammonium chloride
Acute toxicity	<p><b>Type of toxicity:</b> Acute <b>Effect tested:</b> LD50 <b>Route of exposure:</b> Oral <b>Value:</b> 1650 mg/kg <b>Animal test species:</b> Rat</p>
Other toxicological data	There is no toxicological data available about the product as such. The product is not classified as acutely toxic.

### Other information regarding health hazards

Assessment of skin corrosion / irritation, classification	Causes skin irritation.
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Assessment of eye damage or irritation, classification	Causes serious eye irritation.
Sensitisation	The product is not classified as a respiratory or skin sensitiser.
Mutagenicity	The product is not classified as a mutagen.
Carcinogenicity, other information	The product is not classified as a carcinogen.
Reproductive toxicity	The product is not classified as toxic to reproduction.
Assessment of specific target organ toxicity - single exposure, classification	May cause respiratory irritation.
Assessment of specific target organ toxicity - repeated exposure, classification	The product is not classified as toxic to specific target organs at repeated exposure.
Assessment of aspiration hazard, classification	The product is not classified as an aspiration hazard.

## Symptoms of exposure

In case of ingestion	Ingestion may cause irritation of the digestive tract. ( Nausea, vomiting. )
In case of inhalation	May cause irritation to the respiratory system. Difficulty in breathing. Coughing.
In case of eye contact	Irritating to eyes.
Other information	No other health effects reported.

## SECTION 12: Ecological information

### 12.1. Toxicity

Substance	Ammonium nitrate
Aquatic toxicity, fish	<b>Toxicity type:</b> Acute <b>Value:</b> 447 mg/l <b>Effect dose concentration :</b> LC50 <b>Test duration:</b> 48 hour(s) <b>Species:</b> Cyprinus carpio <b>Method:</b> freshwater, static system
Substance	Ammonium chloride
Aquatic toxicity, fish	<b>Toxicity type:</b> Acute <b>Value:</b> 209 mg/l <b>Effect dose concentration :</b> LC50 <b>Test duration:</b> 96 hour(s) <b>Species:</b> Cyprinus carpio <b>Method:</b> static system
Substance	Ammonium nitrate
Aquatic toxicity, algae	<b>Toxicity type:</b> Acute <b>Value:</b> ≥ 1700 mg/l <b>Effect dose concentration :</b> EC50 <b>Test duration:</b> 10 day(s) <b>Method:</b> saltwater, growth rate
Substance	Ammonium nitrate

Aquatic toxicity, crustacean	<b>Toxicity type:</b> Acute <b>Value:</b> 490 mg/l <b>Effect dose concentration :</b> EC50 <b>Test duration:</b> 48 hour(s) <b>Species:</b> Daphnia <b>Method:</b> freshwater
Ecotoxicity	<p>There is no ecotoxicological data available about the product as such. The product is not classified as hazardous to the environment. Prevent entry into drains, sewers or waterways.</p> <p>Own classification (German water hazard class WGK 1): low hazard to the aquatic environment.</p>

## 12.2. Persistence and degradability

Persistence and degradability description/evaluation	Not relevant for inorganic substances.
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## 12.3. Bioaccumulative potential

Bioaccumulation, evaluation	Ammonium nitrate: log Pow -3,1 (at 25 °C) Unlikely to bioaccumulate.
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## 12.4. Mobility in soil

Mobility	Low adsorption potential.
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## 12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Chemical safety assessment has not been performed for the product, no information available about ingredients.
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## 12.6. Other adverse effects

Additional ecological information	None reported.
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# SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Do not allow runoff to drains, sewers or waterways.
Appropriate methods of disposal for the contaminated packaging	After usage, empty the packing completely.
Other information	Dispose of in compliance with local and national regulations.

# SECTION 14: Transport information

## 14.1. UN number

Comments	The product is not classified for transportation.
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## 14.2. UN proper shipping name

**14.3. Transport hazard class(es)****14.4. Packing group****14.5. Environmental hazards**

IMDG Marine pollutant	No.
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**14.6. Special precautions for user****14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Transport in bulk (yes/no)	No
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**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture**

Restriction of chemicals according to Annex XVII (REACH)	Entry: 58 Ammonium nitrate (CAS no.: 6484-52-2)
Water hazard class (DE)	Water hazard class (WGK): 1: low hazard to waters
Legislation and regulations	Regulation (EU) 2019/1009 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003.

**15.2. Chemical safety assessment**

Chemical safety assessment performed	No
Chemical safety assessment	Chemical Safety Assessment has been carried out for the substance: Ammonium nitrate, Ammonium chloride.

**SECTION 16: Other information**

List of relevant H-phrases (Section 2 and 3)	H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
CLP classification, notes	The classification is based on the bridging principle: dilution in accordance with Regulation (EC) No 1272/2008 [CLP / GHS]
Training advice	Read safety data sheet.
Key literature references and sources for data	Product specifications by manufacturer SDSs for product components EH40/2005 Workplace exposure limits (3rd ed, 2018)
Abbreviations and acronyms used	DNEL: Derived No-Effect Level EC50: Effective concentration: concentration which kills or immobilises 50 % of exposed organisms LC50: Lethal concentration 50 % (median lethal concentration): concentration

	<p>which kills 50 % of exposed organisms LD50: Lethal dose 50 % (median lethal dose): dose which kills 50 % of exposed organisms PNEC: Predicted No-Effect Concentration TWA: Time-weighted average</p>
Version	1
Prepared by	Sweco AB
Comments	<p>The information of this safety data sheet is based on existing public information sources, such as current legislation, available at the time of publication of the completed safety data sheet, and information on the Customer's products that has been provided by the Customer to Sweco. The Customer is responsible that the information provided to Sweco is accurate and up to date.</p>