SAFETY DATA SHEET

NPK 27-6-6 / NP 22-14-9 + selen / NP 25-9-8

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 27-6-6 / NP 22-14-9 + selen / NP 25-9-8
Synonyms	Græðir 9, 27-6-6 + se / Fjölgræðir 7, 22-14-9 + se / Fjölgræðir 9
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
Website	http://www.beloragro.fi
Enterprise No.	FI2132672-0

1.4. Emergency telephone number

Emergency telephone	Telephone number: +358 800 147 111 or +358 9 471 977 Open 24 hours a day. Description: Poison Information Centre (in Finland), P.O. Box 790

	(Tukholmankatu 17), 00029 HUS Telephone number: 112 Description: Emergency telephone number (in Finland)
Identification, comments	Please contact the Emergency Centre in your own country, e.g. 112 in European Union countries.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

2.2. Label elements

Hazard pictograms (CLP)

Composition on the label	Ammonium nitrate
Signal word	Warning
Hazard statements	H272 May intensify fire; oxidiser. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep away from clothing and other combustable materials P261 Avoid breathing dust / fume / gas / mist / vapours / spray. P264 Wash hands and exposed skin areas 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. P332+P313 If skin irritation occurs: Get medical advice / attention. P337+P313 If eye irritation persists: Get medical advice / attention.

2.3. Other hazards

PBT / vPvB	For results of PBT and vPvB assessment, see point 12.5.
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	50 - 70 %	
Potassium chloride	CAS No.: 7447-40-7 EC No.: 231-211-8	CLP classification, notes: Not classified.	10 - 20 %	
Monoammonium phosphate	CAS No.: 7722-76-1 EC No.: 231-764-5	CLP classification, notes: Not classified.	5 - 20 %	
Ammonium sulphate	CAS No.: 7783-20-2 EC No.: 231-984-1	CLP classification, notes: Not classified.	5 - 10 %	
Ammonium dihydrogenorthophosphate	CAS No.: 7722-76-1 EC No.: 231-764-5 REACH Reg. No.: 01-2119488166-29-XXXX	CLP classification, notes: Not classified.	4 - 8 %	
Calcium hydrogenorthophosphate	CAS No.: 7757-93-9 EC No.: 231-826-1 REACH Reg. No.: 01-2119490064-41-XXXX	CLP classification, notes: Not classified.	4 - 8 %	
Sodium chloride	CAS No.: 7647-14-5 EC No.: 231-598-3	CLP classification, notes: Not classified.	< 1 %	

Description of the mixture	The exact composition varies depending 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	If inhaled, move exposed person to fresh air and keep at rest. Get medical advice/attention if you feel unwell.
Skin contact	Remove contaminated clothing. Wash contaminated skin thoroughly with water and soap. 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. Get medical attention if eye irritation occurs.
Ingestion	Rinse mouth thoroughly. Do NOT induce vomiting. Get medical advice/attention. Give activated carbon, in order to reduce the resorption in the gastro-enteric tract. 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 eye, skin and respiratory irritation. Ingestion may cause nausea and vomiting.
Delayed symptoms and effects	None known.

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

Other information	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray (fog).
Improper extinguishing media	Powder. Foam. Dry sand. Water spray.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	May intensify fire; oxidiser.
Hazardous combustion products	Decomposition at temperature > 200 ºC can release toxic gases containing nitrogen oxides, hydrogen chloride, chlorine.

5.3. Advice for firefighters

Personal protective equipment	Wear appropriate protective equipment and self-contained breathing apparatus.
Other information	Avoid inhalation of fire fumes. 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. Avoid generation and spreading of dust. Remove all sources of ignition.
Personal protection measures	Avoid breathing dust. Avoid contact with skin and eyes. Wear appropriate personal protective equipment.

6.2. Environmental precautions

Environmental precautionary measures	Avoid release into drains, sewers or waterways.

6.3. Methods and material for containment and cleaning up

Clean up	Pick up mechanically. Collect in tightly sealed containers for disposal.

6.4. Reference to other sections

Additional information	Safe handling: see point 7. Personal protective equipment: see point 8. Waste disposal: see point 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Ensure adequate ventilation. Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Use appropriate personal protective equipment while handling the product (see point 8). It is recommended that eyewash facilities are available when handling this product.

Protective safety measures

Safety measures to prevent fire	Handle and store away from all sources of heat or ignition. No smoking.
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 and exposed skin areas before breaks and after handling the product. Wash contaminated clothes before reuse.

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. Keep storage area clean.
Packaging compatibilities	Suitable packaging materials and coatings: Polypropylene.
Requirements for storage rooms and vessels	Keep containers tightly closed and upright to prevent leakage.

7.3. Specific end use(s)

Specific use(s)	The use stated in section 1.2.

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/m³	
Dusts, total inhalable dust		Limit value (8 h) : 10 mg/m³	
Control parameters comments	Compliance with the accepted occupational exposure limits values should be controlled on a regular basis.		

DNEL / PNEC

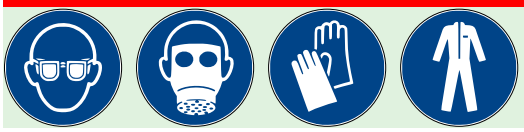
Substance	Ammonium nitrate
DNEL	**Group:** Professional **Route of exposure:** Long-term inhalation (systemic) **Value:** 37,6 mg/m³ **Comments:** Repeated dose toxicity **Group:** Professional **Route of exposure:** Long-term dermal (systemic) **Value:** 21,3 mg/kg bw/day **Comments:** Repeated dose toxicity

	Group: Consumer **Route of exposure:** Long-term inhalation (systemic) **Value:** 11,1 mg/m³ **Comments:** Repeated dose toxicity **Group:** Consumer **Route of exposure:** Long-term dermal (systemic) **Value:** 12,8 mg/kg bw/day **Comments:** Repeated dose toxicity **Group:** Consumer **Route of exposure:** Long-term oral (systemic) **Value:** 12,8 mg/kg bw/day **Comments:** Repeated dose toxicity
PNEC	**Route of exposure:** Freshwater **Value:** 0,45 mg/l **Route of exposure:** Saltwater **Value:** 0,045 mg/l **Route of exposure:** Water **Value:** 4,5 mg/l **Comments:** intermittent releases **Route of exposure:** Sewage treatment plant STP **Value:** 18 mg/l
Substance	Potassium chloride
DNEL	**Group:** Professional **Route of exposure:** Long-term dermal (systemic) **Value:** 303 mg/kg bw/day **Group:** Professional **Route of exposure:** Long-term inhalation (systemic) **Value:** 1064 mg/m³ **Group:** Professional **Route of exposure:** Acute dermal (systemic) **Value:** 910 mg/kg bw/day **Group:** Professional **Route of exposure:** Acute inhalation (systemic) **Value:** 5320 mg/kg bw/day **Group:** Consumer **Route of exposure:** Long-term dermal (systemic) **Value:** 182 mg/kg bw/day **Group:** Consumer **Route of exposure:** Long-term inhalation (systemic) **Value:** 273 mg/m³ **Group:** Consumer **Route of exposure:** Long-term oral (systemic) **Value:** 91 mg/kg bw/day

	Group: Consumer **Route of exposure:** Acute inhalation (systemic) **Value:** 1365 mg/m³ **Group:** Consumer **Route of exposure:** Acute dermal (systemic) **Value:** 910 mg/kg bw/day **Group:** Consumer **Route of exposure:** Acute oral (systemic) **Value:** 455 mg/kg bw/day
PNEC	**Route of exposure:** Freshwater **Value:** 0,1 mg/l **Route of exposure:** Saltwater **Value:** 0,1 mg/l **Route of exposure:** Sewage treatment plant STP **Value:** 10 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.

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	e.g. Nitrile rubber. Contact glove manufacturer for specific advice on glove selection.

Skin protection

Suitable protective clothing	Wear appropriate protective clothing.
Recommended material(s)	Clothing: cotton. Boots: leather, rubber

Respiratory protection

Respiratory protection necessary at	Wear suitable respiratory protection.

Recommended type of equipment	Consult with respirator manufacturer to determine respirator selection, use, and limitations.
Recommended respiratory protection	Mask type: Dust mask/respirator. Reference to relevant standard: EN 143 EN 149.

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	Pale pink. Light brown.
Odour	Odourless.
Odour limit	Comments: Not relevant.
pH	Status: In aqueous solution Value: ≥ 4 Comments: NPK 27-6-6 Concentration: 10 %
Melting point / melting range	Value: 126 °C Comments: 1013 hPa NPK 27-6-6
Boiling point / boiling range	Comments: Decomposes before the boiling point is reached.
Flash point	Comments: Not applicable.
Evaporation rate	Comments: Not applicable.
Flammability (solid, gas)	Not flammable.
Explosion limit	Comments: Not applicable.
Vapour pressure	Comments: Unknown.
Vapour density	Comments: Not applicable.
Relative density	Value: 1,07 Comments: NPK 27-6-6 Temperature: 20 °C
Solubility	Medium: Other Comments: NPK 27-6-6: Partly dissolvable in acetone, ethyl and methyl alcohol. Medium: Water Comments: NPK 27-6-6: 90 % solubility of components in water.
Partition coefficient: n-octanol/ water	Comments: Not applicable.
Spontaneous combustability	Comments: Unknown.
Decomposition temperature	Value: > 200 °C Comments: NPK 27-6-6

Viscosity	Comments: Not applicable.
Explosive properties	Not classified as explosive.
Oxidising properties	May cause or intensify fire; oxidiser.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Not reactive under normal use and storage conditions.

10.2. Chemical stability

Stability	Chemically stable under normal storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Reacts with strong alkalis and acids.

10.4. Conditions to avoid

Conditions to avoid	Keep away from sources of ignition. No smoking. Keep away from clothing. Keep away from incompatible materials.

10.5. Incompatible materials

Materials to avoid	Flammable substances, reducers, acids, alkalis, chlorates, chlorides, chromates, nitrites, permanganates, metal powder, substances containing metals: such as copper, nickel, cobalt, zinc, petroleum products, strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products	Nitrogen oxides. Ammonia. Hydrogen chloride. Chlorine.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Ammonium nitrate
Acute toxicity	**Effect tested:** LD50 **Route of exposure:** Oral **Value:** 2950 mg/kg **Animal test species:** Rat **Effect tested:** LD50 **Route of exposure:** Dermal **Method:** OECD 402 **Value:** ≥ 5000 mg/kg **Animal test species:** Rat **Effect tested:** LC50

	Route of exposure: Inhalation. **Duration:** 4 hour(s) **Value:** 88,8 mg/l **Animal test species:** Rat
Substance	Potassium chloride
Acute toxicity	**Effect tested:** LD50 **Route of exposure:** Oral **Value:** 3020 mg/kg **Animal test species:** Rat
Substance	Ammonium sulphate
Acute toxicity	**Effect tested:** LD50 **Route of exposure:** Oral **Value:** 3000 mg/kg **Animal test species:** Rat
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.
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.
Assessment of carcinogenicity, classification	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	May cause irritation of the gastrointestinal tract. Nausea, vomiting.
In case of skin contact	Causes skin irritation.
In case of inhalation	May cause respiratory irritation: Difficulty in breathing. Coughing.
In case of eye contact	Irritating to eyes.
Other information	None reported.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Ammonium nitrate
Aquatic toxicity, fish	**Toxicity type:** Acute **Value:** 447 mg/l **Effect dose concentration :** LC50 **Test duration:** 48 hour(s) **Species:** Cyprinus carpio **Method:** freshwater, static system
Substance	Potassium chloride
Aquatic toxicity, fish	**Toxicity type:** Acute **Value:** 880 mg/l **Effect dose concentration :** LC50 **Test duration:** 96 hour(s) **Species:** Pimephales promelas
Substance	Ammonium sulphate
Aquatic toxicity, fish	**Toxicity type:** Acute **Value:** 126 mg/kg **Effect dose concentration :** LC50 **Test duration:** 96 hour(s) **Species:** Poecilia reticulata
Substance	Ammonium nitrate
Aquatic toxicity, algae	**Toxicity type:** Acute **Value:** ≥ 1700 mg/l **Effect dose concentration :** EC50 **Test duration:** 10 day(s) **Method:** saltwater, growth rate
Substance	Potassium chloride
Aquatic toxicity, algae	**Toxicity type:** Acute **Value:** > 100 mg/l **Effect dose concentration :** IC50 **Test duration:** 72 hour(s) **Species:** Desmodesmus subspicatus
Substance	Ammonium nitrate
Aquatic toxicity, crustacean	**Toxicity type:** Acute **Value:** 490 mg/l **Effect dose concentration :** EC50 **Test duration:** 48 hour(s) **Species:** Daphnia **Method:** freshwater
Substance	Potassium chloride
Aquatic toxicity, crustacean	**Toxicity type:** Acute **Value:** 440 - 880 mg/l **Effect dose concentration :** EC50 **Test duration:** 48 hour(s) **Species:** Daphnia magna
Substance	Ammonium sulphate

Aquatic toxicity, crustacean	**Toxicity type:** Acute **Value:** 292 mg/kg **Effect dose concentration :** LC50 **Test duration:** 48 hour(s) **Species:** Daphnia magna
Ecotoxicity	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.

12.2. Persistence and degradability

Persistence and degradability description/evaluation	Not relevant for inorganic substances. In aqueous solution, the substance is dissociated.

12.3. Bioaccumulative potential

Bioaccumulation, evaluation	Not relevant for inorganic substances. Unlikely to bioaccumulate.

12.4. Mobility in soil

Mobility	Low adsorption potential.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not relevant for inorganic substances.

12.6. Other adverse effects

Additional ecological information	None reported.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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.

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

IMDG Marine pollutant	No.

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

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)
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

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H272 May intensify fire; oxidiser. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
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 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
Version	1
Prepared by	Sweco AB
Comments	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.