

SAFETY DATA SHEET

according to REGULATION (EC) No 1907/2006 (REACH) and REGULATION (EC) No 1272/2008 (CLP)

Version: 1.0

Revision date: -

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**

Product form: Mixture
Product name: **Genezis NP, PK, NPK, N+S fertiliser + micronutrients**
Product code: -

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

NPK fertiliser. EC-Fertiliser

1.2.1. Relevant identified uses

Sectors of use: Agriculture, forestry, fishery [SU1]
Chemical products category: Fertilizers [PC12].

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

Supplier/Manufacturer: **Bigé Holding Kereskedelmi és Termelő Kft.**
H-5007 Szolnok, Tószegi út 51.
Tel: +36 56 505-800
e-mail: titkarsag@bigeholdingkft.hu
www.bigeholding.hu

Responsible for the SDS: **Generisk Kft.**
H-1223 Budapest, Szabadkai u. 14.
Tel: +36 1 362-2704
e-mail: iroda@generisk.hu

1.4. Emergency telephone number

Health Toxicological Information Service: **Health Toxicological Information Service (ETTSz)**
H-1096 Budapest, Nagyváradi tér 2.
Tel: +36 80 201-199
+36 1 476-6464
e-mail: ettsz@okbi.antsz.hu

SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Aquatic Chronic 3 H412 Hazardous to the aquatic environment – Chronic hazard, Category 3

The product is a mixture of inorganic salts.

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2. Label elements

EC FERTILISER

NPK fertiliser blend. Contains nitrogen, phosphorus and potassium.

With micronutrients. With B, Cu, Fe, Mn, Zn.

Label elements according to Regulation (EC) No 1272/2008

Hazard pictogram(s): Not applicable.

Signal word: Not applicable.

Hazard statement(s): **H412** Harmful to aquatic life with long lasting effects.

Precautionary Statements: **P501** Dispose of contents/container in accordance with international regulations.

Supplemental Hazard information (EU): Not applicable.

2.3. Other hazards

Mixture does not meet the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

Not applicable.

3.2. Mixtures**Classification according to Regulation (EC) No 1272/2008**

Name	CAS Number	EC Number	% [weight]	Classification
Ammonium sulphate	7783-20-2	231-984-1	< 82,5%	-
Diammonium hydrogenorthophosphate	7783-28-0	231-987-8	< 65,5%	-
Ammonium dihydrogenorthophosphate	7722-76-1	231-764-5	< 54%	-
Potassium chloride	7447-40-7	231-211-8	< 53,5%	-

Dolomite	16389-88-1	240-440-2	< 37%	-
Urea	57-13-6	200-315-5	< 18%	-
Iron (II) sulphate	7720-78-7	231-753-5	< 5%	Asp. Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Boric acid⁽¹⁾	10043-35-3 11113-50-1	233-139-2 234-343-4	< 0,6%	Repr. 1B, H360FD
Manganese sulphate	7785-87-7	232-089-9	< 0,6%	STOT RE 2, H373 Aquatic Chronic 2, H411
Copper sulphate	7758-98-7	231-847-6	< 0,6%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); zinc sulphate (anhydrous)	7446-19-7 7733-02-0	231-793-3	< 0,2%	Acute Tox. 4, H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

⁽¹⁾ Component with specific conc. limit: Repr. 1B, H360FD: C ≥ 5,5%

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

Mixture does not contain other hazardous ingredient.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general:	If you feel unwell, seek medical advice. Show the label. Decomposition products after heating: ammoniac, nitrogen-oxides, phosphorus oxides, hydrochloric acid.
First-aid measures after inhalation:	Allow victim to breathe fresh air. Allow the victim to rest. Call poison centre or doctor/physician if you feel unwell.
First-aid measures after skin contact:	Remove affected clothing Wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash the contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion:	Do NOT induce vomiting. If swallowed: call a doctor.

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

Inhalation:	May cause drowsiness or dizziness.
Skin contact:	May cause skin irritation.
Eye contact:	May cause eye irritation.
Ingestion:	May cause drowsiness, headache.

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

Treat symptomatically. Show the label of the product or this Safety Data Sheet to the doctor.

SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media:	Dry powder extinguishers, Carbon dioxide, foam, sand, water spray, according to the surrounding.
Unsuitable extinguishing media:	Water jet.

5.2. Special hazards arising from the substance or mixture

Decomposition products after heating: ammoniac, nitrogen-oxides, phosphorus oxides, hydrochloric acid.

5.3. Advice for firefighters

Protective actions during firefighting:	Special protective equipment for firefighters: boots, overalls, gloves, eye and face protection (EN 469). Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves (EN 133).
Other information:	Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Use water spray to keep fire-exposed containers cool. Prevent use of contaminated buildings, area and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel:	Evacuate the danger area. Provide adequate general and local exhaust ventilation
For emergency responders:	Use personal protective equipment as required. See Section 8.

6.2. Environmental precautions

Other advice:	Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
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6.3. Methods and material for containment and cleaning up

For containment: Avoid inhalation of the product, in contact with skin and eyes. Enclose leaked product. Hold the product in dry conditions, if possible. During disposal leak, wear full personal protective equipment. If the product is dry, avoid creating dust during cleaning. Do not sweep product.

Use a vacuum cleaner (Industrial portable devices equipped with high efficiency particulate filter (HEPA filter) or similar devices).

Remove spilled product mop, wet brush or spray the fragmented water currents (fine mist to avoid creating dust) and pick up the wet mixture.

Take the moist product in a waterproof container. Allow the material prior to disposal to dry and harden. Wet and dry product dispose according to the applicable laws and local regulations.

6.4. Reference to other sections

Handling and storage see Section 7.

Personal protection see Section 8.

Waste treatment methods see Section 13.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Protective measures: Keep container tightly closed. Wash hands thoroughly after handling. Avoid creating dust.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions: Store the product in a well-ventilated area. Keep container tightly closed. Keep away from children.

Storage temperature [°C]: < 35 °C

Incompatible materials: Bases, strong acids.

Packaging materials: Keep in original container, PP, PE.

Storage class: -

Further information on storage conditions: Do not store food, beverages or tobacco products in the storage area.

7.3. Specific end use(s)

Specific end use: Fertilizers [PC12].

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

National occupational exposure limits values corresponding to Regulation 25/2000. (IX. 30.) EüM-SzCsM		
Component	Limit value – inhalation	Limit value – respiration
Dust	10 mg/m ³	6 mg/m ³

8.2. Exposure controls**Appropriate engineering controls**

Employ good industrial hygiene practice. Provide adequate general and local exhaust ventilation.

Use only outdoors or in a well-ventilated area. If needed, use local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Avoid breathing dust. Remove/Take off all contaminated clothing. Rinse skin with water/shower. Wash the contaminated clothing before reuse.

Wash hands, forearms and face thoroughly after handling the product, before eating, smoking and using the lavatory and at the end of the working period.

Personal Protection: Use personal protective equipment as required.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure of dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. (EN 166)

Skin protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling this product if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material might be different for different glove manufacturers. (EN 374)

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or

anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If the concentration is exceeded, use filter type P1 or FFP1 (dust).

Thermal hazards: Not applicable.

Environmental exposure controls

Technical measures to prevent exposure: Prevent the spread in the environment and enter drains and watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	Solid
Colour:	Off-white to pink
Odour:	Odourless
Odour threshold:	No data available
pH:	5-7
Melting point/freezing point:	> 130 °C
Initial boiling point and boiling range:	Not applicable (decomposes before boiling)
Flash point:	Not applicable
Evaporation rate:	Not applicable
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure [@ 20 °C]:	No data available
Vapour density:	Not applicable
Density [@ 20 °C]:	1,5-2,5 g/cm ³
Solubility(ies):	Depends on the components.
Partition coefficient: n-octanol/water:	Not applicable
Auto-ignition temperature:	Does not ignite.
Decomposition temperature:	> 155 °C
Viscosity [@ 20 °C]:	Not applicable
Explosive properties:	No data available
Oxidising properties:	No data available

9.2. Other information

Bulk density: 800-1100 kg/m³

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

Reactivity: Under storage at normal ambient temperatures the product is stable. Reacts with acids and bases.

10.2. Chemical stability

Chemical stability: Under storage at normal ambient temperatures the product is stable.

10.3. Possibility of hazardous reactions

Hazardous reactions: No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Conditions to avoid: Extremely high or low temperatures, moisture.

10.5. Incompatible materials

Incompatible materials: With bases forms ammoniac, with acids forms in high temperature hydrochloric acid.

10.6. Hazardous decomposition products

Decomposition products: Decomposition products after heating: ammoniac, nitrogen-oxides, phosphorus oxides, hydrochloric acid.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Acute toxicity:**

Ammonium sulphate (7783-20-2)	
LD50 oral, rat	4250 mg/kg bw
LD50 dermal, rat	> 2000 mg/kg bw
Diammonium hydrogenorthophosphate (7783-28-0)	
LD50 oral, rat	> 2000 mg/kg w
LC50 inhalation, rat	> 5 mg/L air, 4 h
LD50 dermal, rat	> 5000 mg/kg bw
Ammonium dihydrogenorthophosphate (7722-76-1)	
LD50 oral, rat	> 2000 mg/kg bw
LC50 inhalation, rat	> 5 mg/L air, 4 h
LD50 dermal, rat	> 5000 mg/kg w

Potassium chloride (7447-40-7)	
LD50 oral, rat	ca. 3020mg/kg w
Urea (57-13-6)	
LDLo oral, cattle	600 mg/kg bw
Iron (II) sulphate (7720-78-7)	
LD50 oral, rat	500 mg/kg bw
TLV inhalation, rat	1 mg/m ³ air, 40 h
LD50 dermal, rat	> 2000 mg/kg bw
Boric acid (10043-35-3; 11113-50-1)	
LD50 oral, rat	3450 mg/kg bw
LC50 inhalation, rat	> 2,03 mg/L air, 5 h
LD50 dermal, rabbit	> 2000 mg/kg bw
Manganese sulphate (7785-87-7)	
LD50 oral, rat	2150 mg/kg w
LC50 inhalation, rat	> 4,45 mg/L air, 4 h
Copper sulphate (7758-98-7)	
LD50 oral, rat	482 mg/kg bw
LD50 dermal, rat	> 2000 mg/kg bw

Acute toxicity:	No known significant effects or critical hazards.
Skin corrosion/irritation:	No known significant effects or critical hazards.
Serious eye damage/irritation:	No known significant effects or critical hazards.
Respiratory or skin sensitisation:	No known significant effects or critical hazards.
Germ cell mutagenicity:	No known significant effects or critical hazards.
Carcinogenicity:	No known significant effects or critical hazards.
Reproductive toxicity:	No known significant effects or critical hazards.
STOT-single exposure:	No known significant effects or critical hazards.
STOT-repeated exposure:	No known significant effects or critical hazards.
Aspiration hazard:	No known significant effects or critical hazards.

Other information

No known other significant effects or critical hazards.

SECTION 12: ECOLOGICAL INFORMATION**12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

Toxicity to fish, Daphnia and aquatic invertebrates

Ammonium sulphate (7783-20-2)	
LC50 (Oncorhynchus mykiss)	53 mg/L 96 h
EC10 (Lepomis macrochirus)	5,29 mg/L 30 d
EC50 (Ceriodaphnia acanthina)	121,4 mg/L 48 h
EC10 (Hyalella azteca)	3,12 mg/L 10 w
Diammonium hydrogenorthophosphate (7783-28-0)	
LC50 (Oncorhynchus mykiss)	> 100 mg/L 96 h
LC50 (Daphnia carinata)	1790 mg/L 72 h
Ammonium dihydrogenorthophosphate (7722-76-1)	
LC50 (Oncorhynchus mykiss)	> 85,9 mg/L 96 h
LC50 (Daphnia carinata)	1790 mg/L 72 h
Potassium chloride (7447-40-7)	
LC50 (Pimephales promelas)	880 mg/L 96 h
NOEC (Pimephales promelas)	500 mg/L 7 d
EC50 (Dreissena polymorpha)	147 mg/L 48 h
Urea (57-13-6)	
LC50 (Leuciscus idus melanotus)	> 10 000 mg/L 48 h
NOEC (Gambusia affinis)	200 mg/L 1 w
EC50 (Daphnia magna)	> 10 000 mg/L 24 h
Boric acid (10043-35-3; 11113-50-1)	
LC50 (Pimephales promelas)	79,7 mg/L 96 h
NOEC (Pimephales promelas)	11,2 mg/L 32 d
LC50 (Lampsilis siliquoidea)	137 mg/L 96 h
NOEC (Hyalella azteca)	25,9 mg/L 42 d
Manganese sulphate (7785-87-7)	
LC50 (Salmo trutta)	49,9 mg/L 96 h
NOEC (Danio rerio)	4496,89 µg/L 35 d
LC50 (Hyalella azteca)	3 mg Mn/L 96 h
LC50 (Daphnia magna)	5700 µg/L 3 w

Copper sulphate (7758-98-7)	
LC50 (Pimephales promelas)	193 µg/L 96 h
NOEC (Atherinops affinis)	123 µg/L 12 d
LC50 (Daphnia magna)	7 µg/L 48 h
NOEC (Penaeus mergulensis)	33 µg/L 14 d

12.2. Persistence and degradability

The plants and other creatures use the compounds as available nutrients. The remaining compounds increase the permanent nutrients of the soil.

No known significant effects or critical hazards.

12.3. Bioaccumulative potential

The bioaccumulative potential of the components is low. No known significant effects or critical hazards.

12.4. Mobility in soil

Nitrate ions are mobile in the soil.

12.5. Results of PBT and vPvB assessment

Mixture does not meet the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects

Product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

National regulations: Act CLXXXV. 2012;
Gov. Regulation 98/2001. (VI. 15.);
Regulation (EC) No 2008/98;
Regulation 72/2013. (VIII. 27.) VM.

Disposal methods: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Waste codes: EWC 06 10 99 wastes not otherwise specified (wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and

fertiliser manufacture)

Disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

Not regulated as a hazardous material or dangerous goods for transportation.

14.2. UN proper shipping name

Not regulated as a hazardous material or dangerous goods for transportation.

14.3. Transport hazard class(es)

Not regulated as a hazardous material or dangerous goods for transportation.

14.4. Packing group

Not regulated as a hazardous material or dangerous goods for transportation.

14.5. Environmental hazards

Harmful to aquatic life with long lasting effects.

14.6. Special precautions for user

Not regulated as a hazardous material or dangerous goods for transportation.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not regulated as a hazardous material or dangerous goods for transportation.

14.8. Dangerous goods description on transport document

Not regulated as a hazardous material or dangerous goods for transportation.

14.9. Other information

Not regulated as a hazardous material or dangerous goods for transportation.

SECTION 15: REGULATORY INFORMATION

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

EU regulations: No additional information available.

National regulations: No additional information available.

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

BCF	Bioconcentration factor
CAS	Chemical Abstracts Service
DNEL	Derived No Effect level
DMEL	Derived Minimal Effect level
DSD	(Directive 67/548/EEC) Directive on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances.
EC50	(half maximal effective concentration) it refers to the concentration of a drug, antibody or toxicant which induces a response halfway between the baseline and maximum after a specified exposure time.
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	The concentration at which a 50% inhibition of growth rate is observed.
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
LC50	(lethal concentration, 50%) An LC50 value is the concentration of a material in air (vapours, dusts, mists and gases) that will kill 50% of the test subjects (animals, typically mice or rats) when administered as a single exposure (typically 1 or 4 hours). This value gives you an idea of the relative toxicity of the material (mg/m ³ or ppm).
LD50	(lethal dose, 50%) An LD50 is a standard measurement of acute toxicity that is stated in milligrams (mg) of pesticide per kilogram (kg) of body weight. An LD50 represents the individual dose required to kill 50 percent of a population of test animals (e.g., rats, fish, mice, cockroaches).
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
Pow	Octanol/water partition coefficient (K _{ow})
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
vPvB	Very Persistent and very Bioaccumulative

Text of Hazard statements mentioned in Section 2. and 3.:

H412 Harmful to aquatic life with long lasting effects.

Indication of changes:

First version.

Methods of evaluation:

Based on the properties of the components.

Advised trainings:

General chemical treatment training.

First aid training course.

Key literature references and sources for data:

European Chemicals Agency (ECHA) Registered substances information:
<http://echa.europa.eu/en/>

European Chemicals Agency (ECHA) Guidance on the compilation of safety data sheets:
http://echa.europa.eu/documents/10162/13643/sds_en.pdf

European Chemicals Agency (ECHA) Guidance on Labelling and Packaging
in accordance with Regulation (EC) No 1272/2008:
http://echa.europa.eu/documents/10162/13562/clp_labelling_hu.pdf

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