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# **SAFETY DATA SHEET**

# Section 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE COMPANY

## 1.1. PRODUCT IDENTIFIER

**Product name:** Compound NPK fertilizers, various brands (types):

<b>Product name:</b> Compound NPK fertilizers, various to	prantius (types):
NPK(Mg,S,B) 10-13-18+(1.5+14+0.05)(SOP)	NPK(S, B, Zn) 10-20-10+(5+0.02+0.02)
NPK(Mg, S) 12-12-17+(1.5+14)(SOP)	NPK(Mg, S, B, Zn) 17-6-11+ (1.2+14+0.02+0.02)
NPK(Mg, S, B) 17-6-11+(1.2+14+0.02)	NPK(S, B, Zn) 12-24-12+(6+0.02+0.02) with
NPK(Mg, S, B) 12-11-22+(1.2+8+0.02)	silicon and humic acids
, , , , , , , , , , , , , , , , , , , ,	NPK(S, B) 5-15-30+(1.5+0.02)
NPK(Mg, S, B) 13-10-15+ (1.5+16+0.02)(SOP)	NPK(S, B, Zn) 5-15-25+(1.5+0.02+0.02)
NPK(Mg, S, B) 11-9-20+(1.5+15+0.05)(SOP)	NPK(S, B, Zn) 7-12-25+(4+0.02+0.02)
NPK(Mg, S, B) 11-10-16+ (1.5+15+0.05)(SOP)	NPK(S, B, Zn) 5-15-30+(1.5+0.02+0.02)
NPK(Mg, S, B) 12-6-18+(1.5+17+0.05)(SOP)	NPK(S, B, Zn) 5-14-31+(1.5+0.02+0.02) with silicon and humic acids
NPK(Mg, S, B) 12-6-18+ (1.5+16.7+0.05)(SOP)	NPK(S, B, Zn) 6-15-30+(2+0.02+0.02) with silicon and humic acids
NPK(Mg, S, B) 5-15-25+(1.5+11+0.05)(SOP)	NPK(S, B, Zn) 7-20-28+(2+0.02+0.02) with silicon and humic acids
NPK(Na, S, B) 12-11-22+(2.5+7+0.15)	NPK(Mg, S, B, Fe, Zn) 12-8-16+ (1.5+17+0.02+0.06+0.01) (SOP)
NPK(Mg,S,B) 7-12-25+(1.2+5+0.02)	NPK(Mg, S, B, Fe, Zn) 12-12-17+ (1.2+15+0.02+0.06+0.01) (SOP)
NPK(S, B, Zn) 7-20-28+(2+0.02+0.02)	NPK(Mg, S, B, Fe, Mn, Zn) 12-11-18+ (1.6+10+0.15+0.2+0.02+0.02)
NPK(S, B, Zn) 6-12-34+(2+0.02+0.02)	NPK(S, B, Fe, Mn, Zn) 5-15-30+ (1.5+0.02+0.2+0.02)
NPK(S, B, Zn) 14-24-7+(8+0.02+0.02)	NPK(S, B, Fe, Mn, Zn) 8-20-30+ (3+0.02+0.2+0.02+0.02)
NPK(S, B, Zn) 10-20-20+(5+0.02+0.02)	NPK(Mg, S, B, Zn) 12-12-
NPK(S, B, Zn) 10-22-15+(5+0.02+0.02)	17+(1.2+14+0.02+0.02)(SOP)
NPK(S, B, Zn) 10-22-15+(4+0.02+0.02)	NPK(S, B, Zn) 4-12-32+(1,5+0,02+0,02) NPK(S, B, Zn) 8-20-20+(3+0.02+0.02)
NPK(S, B, Zn) 12-24-12+(6+0.02+0.02)	NPK(S, B, Zn) 6-18-34+(2+0.02+0.02)
NPK(S, B, Zn) 8-20-30+(3+0.02+0.02)	NPK(S, B, Zn) 10-20-10+(5+0.02+0.02)
NPK(S, B, Zn) 15-15-15+(9+0.02+0.02)	NPK(Mg, S, B, Zn) 10-12- 17+(1,5+12+0,05+0,01)(SOP)
NPK (S, B, Zn) 8-24-24+(2+0.02+0.02)	NPK(S, B, Zn) 7-20-30+(1.5+0.02+0.02)
NPK (Mg,S,B, Zn) 7-21-21+ (1.2+3+0.2+0.02)	
NPK(Mg, S, B, Zn) 12-12-17+	
(1.5+14+0.02+0,02)(SOP)	
NPK(Mg, S, B, Zn) 10-10-17+	
(1.5+14+0.02+0,02)(SOP) NPK(Mg, S, B, Zn) 11-9-20+	
(1.5+15+0.02+0.02)(SOP)	
NPK (B, Zn) 6-18-34+(0,02+0,02)	
NPK(Ca, Mg, S) 11-12-18+(4+1.5+12)	
NPK(Ca, Mg, S) 11-12-17+(4+1.5+12)	
NPK(Mg, S, B, Zn) 11-9-20+ (1.5+15+0.02+0.02)(SOP) with silicon and humic acids	

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NPK(Mg, S, B, Zn) 12-12-17+(1.2+14+0.02+0.02)(SO P) NPK(S, B, Zn) 4-12-32+(1.5+0.02+0.02) NPK(S, B, Zn) 8-20-20+(3+0.02+0.02) NPK(S, B, Zn) 6-18-34+(2+0.02+0.02)

Unique formula identifier of the mixture (UFI): -.

#### 1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

**Recommended use:** Fertilisers. **Uses advised against:** No data

### 1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

### Manufacturer:

UAB Marijampolės NPK;

Gamyklų Str. 5, LT-68108, Marijampolė, Lithuania. Mob. phone: +370 343 97 766

### **Supplier:**

**UAB UHB Agro** 

Plento Str. 92, LT-19126 Širvintos, Lithuania Phone: +370 382 51092

### **EMAIL OF THE PERSON RESPONSIBLE FOR THE SAFETY DATA SHEET:**

E-mail: info@mnpk.lt

1.4. EMERGENCY TELEPHONE NUMBER: State Medicines Control Agency under the Ministry of Health Poisons

Control and Information Bureau, 24/7: Phone: +370 5 236 20 52

General emergency number: 112

### **Section 2. POTENTIAL HAZARDS**

### 2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

### 2.1.1. Classification according to Regulation (EC) No.

# 1272/2008 [CLP]

Eye Irrit. 2; H319 Repr. 1B; H360FD

# 2.1.2. Additional information:

The full text of the EU hazard statements can be found in section 16.

# 2.2. MARKING ELEMENTS

## 2.2.1. Marking according to Regulation (EC) No. 1272/2008

[CLP] Hazard pictograms:





Signal word: Danger

**Hazard statements:** 

H319 Causes serious eye irritation.

H360FD May damage fertility. May harm the unborn baby.

Precautionary statements:

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P201 Obtain special instructions before use.

P264 Wash hands 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.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P337+P313 If eye irritation persists get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with the local/regional/national/international regulations.

Without prejudice to the implementation of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure that the packaging of such substances and mixtures, before they are placed on the market, is marked with a clear and indelible inscription: "For professional use only".

Additional hazard information (EU): No.

### 2.3. OTHER HAZARDS

This substance/mixture does not meet the PBT and vPvB criteria of Regulation (EC) No. 1907/2006 Annex , XIII. The contained substance boric acid EC233-139-2 is included on the Candidate List of Substances of Very High Concern (SVHC) according to Article 59 of the REACH Regulation.

### Section 3. COMPOSITION OR INFORMATION ABOUT COMPONENTS

### 3.1. MATERIALS

Not applicable (product is a mixture of chemicals).

# 3.2. MIXTURES

Component	CAS No.	EC No.	REACH reg. No.	Conte nt, (%)	Classification according to Regulation CLP No.
Superphosphate (SSP)	8011-76-5	232-379-5	01-2119488967-11-xxxx	≤ 0.9	Eye Dam. 1, Serious eye damage, hazard category 1, H318
Boric acid Id. No. 005-007-00-2	10043-35-3	233-139-2	01-2119486683-25-xxxx	≤ 0.9	Repr. 1B, Reproductive toxicity, hazard subcategory 1B, H360FD
Iron sulphate	7720-78-7	231-753-5	-	≤0.7	Acute Tox. 4, Acute toxicity, hazard category 4, H302, Skin. Irrit. 2, Skin irritation, hazard category 2, H315, Eye Irrit. 2, Eye irritation, dangerous category 2, H319
Manganese (II) sulfate monohydrate	10034-96-5	600-072-9	-	≤ 0.06	STOT RE 2, Specific target organ toxicity (repeated exposure), category 2, H373; Aquatic Chronic 2, Hazardous to the aquatic environment, category 2, H411

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Zinc sulphate (monohydrate)	7446-19-7	616-096-8	-	≤ 0.06	Acute Tox. 4,			
, ,					Acute toxicity, hazard category 4, H302, Eye Dam. 1, Serious eye damage,			
					hazard category 1, H318;			
					Aquatic Acute 1, Acute danger to the aquatic			
					environment, hazard category 1, H400; Aquatic Chronic 1, Chronic danger to the aquatic environment,			
					hazard category 1, H410			
Amines, fatty alkyl, dodecylbenzenesulfonat e	68139-94-6	268-766-0	01-2119982408-26-xxxx	≤ 0.0072	Skin Sens. 1; Skin sensitisation, dangerous category 1, H317			
Ammonium sulfate	7783-20-2	231-984-1	01-211945504446-xxxx	≤ 57	Not classified.			
Potassium chloride	7447-40-7	231-211-8	01-211953941636-xxxx	≤ 56	Not classified.			
Potassium sulfate	7778-80-5	231-915-5	01-2119489441-34-xxxx	≤ 50	Not classified.			
Diammonium hydrogen orthophosphate	7783-28-0	231-987-8	01-2119490974-22-xxxx	≤ 33	Not classified.			
Ammonium dihydrophosph ate	7722-76-1	231-764-5	01-2119488166-29-xxxx	≤ 25	Not classified.			
Magnesium Sulfate	7487-88-9	231-298-2	01-2119486789-11-xxxx	≤ 12	Not classified.			
Sand	-	-	-	≤ 10	Not classified.			
Calcium carbonate	471-34-1	207-439-9	-	≤10	Not classified.			
Sodium chloride	7647-14-5	231-598-3	01-2119485491-33-xxxx	≤ 7	Not classified.			
Urea	57-13-6	200-315-5	01-2119463277-33-xxxx	≤ 6.5	Not classified.			
Humic acids, potassium salts	68514-28-3	271-030-1	01-2119484861-29-xxxx	≤ 1.0	Not classified.			
Potassium silicate; silicic acid,	1312-76-1	215-199-1	01-2119456888-17-xxxx	≤ 1.0	Not classified.			
Water	7732-18-5	231-791-2	-	≤ 0.4	Not classified.			
Vaseline	8009-03-8	232-373-2	01-2119490412-42-xxxx	≤ 0.216	Not classified.			
Paint (pigment)	-	-	-	≤0.1	-			
Lubricating oils	74869-22-0	278-012-2		≤ 0.048	Not classified.			
Distillate (petroleum), hydrogenated	64742-54-7	265-157-1	01-2119484627-25-xxxx	≤ 0.0072	Not classified.			
Paraffinic oils (petroleum), light, catalytically dewaxed	64742-71-8	265-176-5	-	≤ 0.0072	Not classified.			

**Additional information:** The full text of the hazard statements can be found in section 16.

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### Section 4. FIRST AID MEASURES

### 4.1. DESCRIPTION OF THE FIRST AID MEASURES

**General notices:** Take off immediately contaminated clothing.

If inhaled: After inhalation of dust remove victim to fresh air. Consult a doctor if symptoms persist. After inhaling the decomposition products formed during combustion, remove the victim to fresh air and seek medical help. Continuous 48-hour medical care is required.

If on skin: Remove contaminated clothing. Wash with skin plenty of water. If symptoms occur and persist, consult a doctor/physician.

If in eyes: Immediately rinse the eyes with plenty of water while keeping the eyelids opened. Remove contact lenses, if possible. Consult a doctor if irritation persist.

In case of ingestion: Rinse mouth with water. Remove the victim to fresh air and place in a position that does not interfere with free breathing. Do not induce vomiting unless directed by the doctor.

**Personal protective equipment for first responders:** Take care of your safety!

# 4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Prolonged contact can irritate eyes and skin. Inhalation of dust may cause shortness of breath, coughing. Ingestion may damage the mucous membrane of the digestive tract, cause nausea, vomiting, diarrhea. After ingestion of fertilizers or inhalation of thermal destruction compounds, symptoms of poisoning may appear later, so the victim should be observed for at least 48 hours.

### 4.3. INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically. If poisoning with this product is suspected or identified, it is necessary to immediately contact the poisoning information office; tel. +370 5 236 20 52.

### **Section 5. FIRE-FIGHTING MEASURES**

**General fire hazards.** Remove all bystanders from the fire area. The product itself is non-flammable. Decomposition or combustion products and harmful fumes may be released in the event of a fire.

### **5.1. EXTINGUISHING MEANS**

Suitable extinguishing media: Depending on the fire environment. Water, foam, dry powder or carbon

Unsuitable extinguishing media: Unknown.

### 5.2. SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous thermal decomposition products: During a fire, thermal destruction of fertilizer components may occur, harmful smoke (fume), nitrogen oxides (NO, NO2), carbon oxides (CO, CO2), sulphur oxides (SOx), phosphorus oxides (P2Ox), chlorine (Cl), ammonia (NH3), hydrogen chloride (HCI), etc., may be formed. Do not inhale harmful compounds.

# **5.3. ADVICES FOR FIRE-FIGHTERS**

Special protective firefighting equipment: Fire-fighters must use appropriate protective equipment and selfcontained breathing apparatus with a positive pressure full face mask. Fire-fighter clothing (including helmets, safety boots and gloves) conforming to European standard EN 469 will provide a basic level of protection in chemical incidents.

Special fire-fighting measures: Move containers away from the fire area if it can be done without risk. Use water spray to cool unopened containers. Cool the container by flooding it with water and after the fire is extinguished. Prevent product from entering drains, surface waters.

### Section 6. EMERGENCY RESPONSE MEASURES

# 6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

### **6.1.1.** For personnel not involved in emergency response:

**Protective measures:** Use appropriate personal protective equipment - protective clothing, gloves, respiratory protective masks. Avoid breathing dust. No action should be taken if it endangers personnel and without proper training. Remove persons from adjacent premises. Prevent bystanders and unprotected personnel from entering the accident site. Do not touch or walk spilled product. Remove

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sources of ignition (no smoking, sparks or flames in the adjacent area). For personal protection measures, see Section 8.

**<u>First aid means:</u>** Ensure proper ventilation. Remove affected persons from the contaminated area. If unwanted symptoms appear and persist, consult a doctor.

**6.1.2. For personnel involved in emergency response:** Wear special clothing when handling spillage, refer to section 8 for information on suitable and unsuitable materials. Also see the information provided in the section "For personnel not involved in emergency response". Use personal protective equipment as specified in section 8 of the safety data sheet.

### **6.2. ENVIRONMENTAL PRECAUTIONS**

Do not allow the spilled product to enter the soil, drainage/water environment and sewer pipes. In case of entry into the drainage/water environment or in case of spillage of a large amount of fertilizer, notify the Department of Environmental Protection under the Ministry of the Environment or the General Assistance Centre.

### 6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

- **6.3.1. Containment:** Stop the spill. Avoid the formation of dust and its dispersion around the area in case of wind.
- **6.3.2. Cleaning:** Mechanically vacuum or sweep and collect in special containers for further disposal.
- **6.3.3. Other information:** Dispose of waste in a specialised company.

### **6.4. REFERENCES TO OTHER SECTIONS**

For personal protection measures, see Section 8. For waste management, see Section 13.

#### Section 7. HANDLING AND STORAGE

### 7.1. PRECAUTIONS FOR SAFE WAREHOUSING

**Information on safe use:** Use properly personal protection equipment as described in Section 8. Avoid breathing dust. Eating, drinking and smoking are prohibited in areas where this product is used, stored and processed. Wash your hands and face before the break. Remove contaminated clothing and protective equipment before entering eating areas. See also additional information on hygiene measures in Section 8.

**Information on fire and explosion protection:** The product is non-flammable and non-explosive. Keep away from heat and ignition sources.

# 7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

**Requirements for storage premises and tanks:** Store in a closed original packaging, protected from direct sunlight, in a dry, cool and well-ventilated room, away from incompatible materials and food, drinks, animal feed. Opened packages should be tightly closed and kept upright to prevent product spillage. Do not store without labels. Use suitable packaging to avoid environmental pollution. Protect from moisture. A reaction may occur in the presence of moisture. Incompatible materials: strong oxidizers, strong acids, alkalis, flammable substances. Do not keep near heat sources, open flames.

Large quantities can be stored loosely in closed covered warehouses protected from atmospheric precipitation and moisture.

If necessary, it can be stored outdoors on pallets in polypropylene bags with a hermetically sealed polyethylene liner, protecting from direct sunlight and precipitation.

### 7.3. SPECIFIC END USE (S)

Compound NPK fertilizers. The method of use and other information are indicated on the fertilizer label.

### Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# **8.1. CONTROL PARAMETERS**

# 8.1.1. Occupational Exposure Limits Value:

Occupational exposure limit values for chemicals according to Lithuanian hygiene standards HN 23:2011:

		Long-term	Short-term	Limit value	Markers			
Component	CAS No. exposure limit exposure		exposure limit	nit not to be of heal				
		(LTEL)	(STEL)	exceeded				

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		mg/m₃	ppm	mg/m₃	ppm	mg/m <sub>3</sub>	ppm	effects
Dust:	-							
- inhalable fraction	-	10	_	_	-	-	_	
- alveolar fraction	-	5	_	_	_	_	_	
Potassium chloride	7447-40-7	5	_	_	-	_	_	_
Potassium sulphate	7778-80-5	10						
Sodium chloride	7647-14-5	5	_	_	_	-	_	_
Urea	57-13-6	10	_	_	_	_	_	_
Boric acid	10043-35-3	10	_	_	_	_	_	R
Manganese and its inorganic compounds (as		1	_	_	_	_	_	_
- inhalable fraction - alveolar fraction	10034-96-5	0.5	-	_	-	_	-	_

**Comment:** R - reproductive toxicity. The alveolar fraction is the part of dust passing through the preseparator, the parameters of which correspond to the parameters of the Johannesburg Convention.

# **8.1.2. Biological limit values:** No biological effect limits have been established for the constituent(s)

Ammonium sulphate, CAS No. 7783-20-2

PNEC water (fresh water): 0.312 mg/l; PNEC water (sea water): 0.0312 mg/l;

PNEC water (interim discharges): 0.53 mg/l; PNEC wastewater treatment plants: 16.18 mg/l;

PNEC sediments: 0.063 mg/l; PNEC soil: 62.6 mg/kg soil

Ammonium dihydrophosphate, CAS No. 7722-76-1:

PNEC fresh water: 1.7 mg/l; PNEC sea water: 0.17 mg/l;

PNEC released intermittently fresh water: 17 mg/l; PNEC (STP) wastewater treatment plants: 10 mg/l.

Boric acid, CAS No. 10043-35-3: PNEC fresh water: 2.9 mg/l; PNEC sea water: 2.9 mg/l;

PNEC water (intermittent): 13.7 mg/l;

PNEC Soil: 5.7 mg/kg sv.;

PNEC sewage treatment plants: 10 mg/l.

**Recommended follow-up procedures:** Follow standard follow-up procedures.

### **8.2. EXPOSURE CONTROLS**

General information: The required level of protection and control types may vary depending on the likely exposure conditions. Select measures based on risk assessment based on local circumstances.

8.2.1. Appropriate technical management measures: Normal precautions should be observed. Before direct contact with the product, use personal protective equipment. Use only with adequate ventilation. If dust is generated during use, use dust reduction means, local exhaust ventilation, or other engineering controls to keep airborne exposure to employee below recommended or established limits.

### 8.2.2. Personal protective equipment:

**General information:** Use personal protective equipment. Keep work clothes separate. Personal protective equipment should be selected according to CEN standards and after discussion with the supplier of personal protective equipment.

**Eye / face protection:** Use safety goggles (LST EN 166).

**Skin protection:** 

Hand protection: Protective gloves (LST EN 374). The most suitable gloves are selected based on quality, durability, and duration of use.

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**Other skin protection:** Wear protective work clothes.

Respiratory protection: Use suitable respiratory protection equipment, such as masks with P-type filters or respirators (LST EN 143, LST EN 149, LST EN 14387).

Protection against thermal hazards: Not applicable.

Personal hygiene measures: When using - do not eat, drink or smoke. Wash hands and face after use. Wash contaminated clothing before reuse. Personal clothes and work clothes should be kept separately. Ensure that eyewash facilities and safety showers are located near the workplace.

### **8.3. ENVIRONMENTAL IMPACT CONTROL MEASURES**

Do not pour fertilizers or their solutions into open bodies of water, observe the fertilization rates specified in the instructions for using fertilizers.

#### Section 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL

**PROPERTIESPhysical condition** solid (granules)

grey, light brown, pink, bluish Colour

Odour odourless Melting and freezing point not applicable

Boiling point or initial boiling point

and boiling range not applicable Flammability (solid, gas) not flammable **Upper and lower explosive limits** non-explosive Flash point not applicable

**Auto-ignition temperature** not applicable > 120°C Flash point 5-7 pH:

**Kinematic viscosity** not applicable

**Solubility** soluble in water (> 20 g/l, 20 °C)

Distribution coefficient n-octanol/water no data available Vapour pressure not applicable Density and/or relative density no data available **Relative vapour density** not applicable **Bulk density** 850-1150 kg/m3

**Particle properties** 2-5 mm

# 9.2. OTHER INFORMATION

### 9.2.1. Information on physical hazard classes

No data available.

## 9.2.2. Other safety features

No data available.

### Section 10. STABILITY AND REACTIVITY

#### 10.1. REACTIVITY

The product is not reactive under normal conditions of use, storage and transportation.

#### 10.2. CHEMICAL STABILITY

Stable under recommended conditions of storage and use (see section 7).

### 10.3. POSSIBILITY OF HAZARDOUS REACTIONS

No hazardous reactions when handled and stored according to these provisions (see section 7).

### 10.4. CONDITIONS TO AVOID

Avoid excess moisture and heat, dust formation.

### 10.5. INCOMPATIBLE MATERIALS

Alkalis, acids, reducing agents, flammable substances.

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### 10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Does not decompose under specified conditions of storage and use. Under normal conditions of storage and use, no hazardous decomposition products are formed.

### Section 11. TOXICOLOGICAL INFORMATION

# 11.1. INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO. 1272/2008

**Acute toxicity:** There is no information about the product.

# Acute toxicity of ingredients:

Ammonium sulphate, CAS No. 7783-20-2:

In case of ingestion: LD50 – 2000-4250 mg/kg (rats);

If inhaled: LC50  $- > 1000 \text{ mg/m}_3/8\text{h}$ . (rats); If inhaled: LC50  $- > 900 \text{ mg/m}_3/8\text{h}$ . (g. pig); Dermally: LD50 - > 2000 mg/kg/24h. (rabbit).

Potassium chloride, CAS No. 7447-40-7:

In case of ingestion: LD50 – 3020 mg/kg (rats); In case of ingestion: LD50 – 620 mg/kg (mouse).

Potassium sulphate, CAS No. 7778-80-5:

In case of ingestion: LD50 - > 2000 mg/kg (rats);

If inhaled: LCO - >1200 mg/l (rats); Dermally: LD50 - >2000 mg/kg (rats).

Ammonium dihydrophosphate, CAS No. 7722-76-1:

In case of ingestion: LD50 - > 2000 mg/kg (rats);

If inhaled: LC0 - >5000 mg/l (rats);

Dermally: LD50 - > 5 mg/l/4h. (dust) (rats).

<u>Diammonium hydrogen orthophosphate, CAS No.7783-28-0:</u>

In case of ingestion: LD50 - 2000 mg/kg (rats);

Dermally: LD50 - 5000 mg/kg (rabbits).

Boric acid, CAS No. 10043-35-3:

In case of ingestion: LD50 – 2600 mg/kg (rats);

Dermally: LD50 - 2000 mg/kg (rabbits).

Urea CAS No. 57-13-6:

In case of ingestion: LD50 - 14300-15000 mg/kg (rats);

LD50 - 11500-13000 mg/kg (mouse).

Potassium silicate, CAS No. 1312-76-1:

In case of ingestion: LD50 - > 5000 mg/kg (rats);

If inhaled: LC0 - >2.06 mg/l (rats); Dermally: LD50 - >5000 mg/kg (rats).

Superphosphate, CAS No. 8011-76-5:

In case of ingestion: LD50 - > 2000 mg/kg (rats);

If inhaled: LC0 - >5 mg/l (rats);

Dermally: LD50 - > 2000 mg/kg (rabbit).

Magnesium sulphate, CAS No. 7487-88-9:

In case of ingestion: LD50 - >2000 mg/kg (rats);

Dermally: LD50 - > 2000 mg/kg (rabbit).

Humic acid, potassium salt, CAS No. 68514-28-3:

In case of ingestion: LD50 - >2000 mg/kg (rats);

Dermally: LD50 - > 2000 mg/kg (rats).

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**Skin corrosion/irritation:** Not classified.

**Serious eye damage and/or eye irritation:** May cause serious eye irritation.

**Respiratory or skin sensitisation:** Not classified. **Mutagenic effects on germ cells:** Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: May damage fertility. May harm the unborn baby.

**STOT(single exposure):** Not classified. **STOT (repeated exposure):** Not classified.

**Aspiration hazard:** Not applicable.

### 11.2. INFORMATION ON OTHER HAZARDS

11.2.1. Disruptive properties of the endocrine system No

11.2.2. Other information No data available. Section 12: ECOLOGICAL INFORMATION

### 12.1. TOXICITY

There is no information about the product.

# **Toxicity of ingredients:**

Ammonium sulphate, CAS No. 7783-20-2:

Fish: LC50 - >53 mg/l/96h.;

Invertebrates: EC50 - >121.7 mg/l/48h. (Daphnia);

Algae: ErC50 - > 2700 mg/l/18d.

# Potassium chloride, CAS No. 7447-40-7:

Fish: LC50 – 880 mg/l/96h (Pimephales promelas); Invertebrates: EC50 – 660 mg/l/48h. (Daphnia magna); Algae: EC50 – >100 mg/l/72h. (Scenedesmus subspicatus).

# Potassium sulphate, CAS No. 7778-80-5:

Fish: LC50 – 680 mg/l/96h (Pimephales promelas); Fish: LC50 – 3550 mg/l/96h (Lepomis macrochirus);

Invertebrates: EC50 - 720 mg/l (Daphnia);

Algae: EC50 - 2700 mg/l.

### Ammonium dihydrophosphate, CAS No.: 7722-76-1:

Fish: LC50 – >85.9 mg/l (Oncorhynchus mykiss); Invertebrates: EC50 – 1790 mg/l (Daphnia);

Algae: EC50 - > 97.1 mg/l/72h.

### Diammonium hydrogen orthophosphate, CAS No.7783-28-0:

Fish: LC50: 24.8 - 29.4mg/L (96h, Oncorhynchus mykiss);

Fish: LC50: =33mg/L (96h, Pimephales promelas).

# Boric acid, CAS No.: 10043-35-3:

Fish: LC50 – 456 mg/l/96h (Pimephales promelas); Invertebrates: EC50 – 760 mg/l48h. (Daphnia magna);

Algae: EC50 - 377 mg/l/72h.

### Urea , CAS No. 57-13-6:

Fish: LC50 - > 10000 mg/l/48h. (Golden orfe);

Invertebrates: EC50 - >10000 mg/l/24h. (Daphnia magna);

Algae: LC50 - >10000 mg/l/192h.

## Potassium silicate, CAS No. 1312-76-1:

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Fish: LC50 - > 146 mg/l/48h. (Leuciscus idus);

Invertebrates: EC50 – >146 mg/l/24h. (Daphnia magna); Algae: LC50 – >207 mg/l/72val. (Scenedesmus subspicatus).

Superphosphate, CAS No. 8011-76-5:

Fish: LC50 – >85.9 mg/l/96h. (Oncorhynchus mykiss); Invertebrates: EC50 – 1790 mg/l/72h. (Daphnia magna);

Algae: LC50 – >87.6 mg/l/72val. (Pseudokirchnerella subcapitata).

Magnesium sulphate, CAS No. 7487-88-9:

Fish: LC50 – 680 mg/l/96h (Pimephales promelas); Invertebrates: EC50 – 720 mg/l/48h. (Daphnia magna).

Humic acid, potassium salt, CAS No. 68514-28-3:

Fish: LC50 - > 128 mg/l;

Invertebrates: LC50 - >116 mg/l;

Algae: LC50 - 100 mg/l.

## 12.2. PERSISTENCE AND DEGRADABILITY

No data available.

### 12.3. BIOACCUMULATIVE POTENTIAL

Not expected.

### 12.4. MOBILITY IN SOIL

Soluble in water, easily distributed in soil.

### 12.5. RESULTS OF PBT And vPvB ASSESSMENT

A substance or mixture that does not have PBT or vPvB properties.

### 12.6. DISRUPTIVE PROPERTIES OF THE ENDOCRINE SYSTEM

No data available.

### 12.7. OTHER ADVERSE EFFECTS

There are no adverse effects.

**General provisions:** In accordance with the general principles of environmental protection, it is prohibited to pour the products into open bodies of water.

### Section 13. WASTE MANAGEMENT

### 13.1. WASTE MANAGEMENT METHODS

Following the "Waste Management Rules" approved by the Order No. 217 of the Minister of the Environment of the Republic of Lithuania as of 14/07/1999 (Official gazette 1999, No. 63-2065 and subsequent amendments). Waste and packaging are disposed of in accordance with applicable legislation.

### Section 14. INFORMATION ABOUT TRANSPORTATION

The product is not classified as a dangerous product and is not subject to the requirements of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR ADR / RID / ADNR / IMDG / ICAO / IATA.

- 14.1. UN number or ID number. No.
- 14.2. JT proper shipping name. No.
- 14.3. Transport hazard class (s). No.
- 14.4. Packing group. No.
- 14.5. Environmental hazards No.
- **14.6. Special precautions for users.** Read safety instructions, safety data sheet and information on emergency procedures before use.
- **14.7.** Transport of unpacked cargo by sea in accordance with IMO measures. Not applicable.

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## Section 15. REGULATORY INFORMATION

# 15.1. SAFETY, HEALTH AND/OR ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE **SUBSTANCE OR MIXTURE**

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency as of, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union No. L 396, 30/12/2006, correction of mistakes - No. L 136/3, 29/5/2007);
- Commission Regulation (EU) 2020/878, amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)(OL L 203/28, 26/06/2020);
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No.1907/2006 (OL 2008 L 353, p.1);
- Commission Regulation (EU) No. 2016/918, which, in order to adapt to technical and scientific progress, amends Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of chemical substances and mixtures (Official Journal of the European Union, 14/06/2016, L 156, p.1);

Procedure for classification and labelling of dangerous chemical substances and preparations approved by the Order No. 345/313 as of 27/06/2002 and the Order No. 411/V-460 as of 04/08/2003 of the Minister of Environment and Minister of Health of the Republic of Lithuania (with all amendments);

- Lithuanian Hygiene Norm HN 23- 2011 Occupational Exposure Limits for Chemical. Substances General Requirements for Measurement and Impact Assessment" (Official Gazette 2011, No. 112-5274);
- Rules for the Management of Packaging and Packaging Waste approved by the Order No. 348 as of 27 June 2002 of the Minister of Environment of the Republic of Lithuania (Official Gazette, 2002, No 81-3503) with all
- Waste management rules approved by the Order No. 217 as of 14/07/1999 of the Minister of Environment of the Republic of Lithuania (new wording approved by the Order No. D1-368 as of 03/05/2011) (Official Gazette, 2011, No 57-2721);
- Regulations on Provision of Personal Protective Equipment to Employees approved by Order No. A1-331 of the Minister of Social Security and Labour of the Republic of Lithuania as of 26 November 2007 (Official Gazette, 2007) No. 123-5055).
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) (Official Gazette, 2003, No 46(1)-2057).

### 15.2. CHEMICAL SAFETY ASSESSMENT

The chemical safety assessment of these products has not been carried out.

#### Section 16. OTHER INFORMATION

### **16.1. REFERENCES TO CHANGES**

The information provided is in accordance with the REACH regulation No. 1907/2006/EC and with the requirements of Regulation 2020/878. Changes made to the safety data sheet: -.

Developed:

03/04/2023

Reviewed: -

Version: 1

# 16.2. LIST OF HAZARD AND PRECAUTIONARY PHRASES IN THE SAFETY DATA SHEET

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H360FD May damage fertility. May harm the unborn baby.

H373 May cause damage to organs (nervous system) through prolonged or repeated exposure (if inhaled).

H400 Very toxic to aquatic life.

H410 Very Toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

P201 Obtain special instructions before use.

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P264 Wash hands 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.

IF exposed or concerned: Get medical advice/attention. P308+P313

P337+P313 If eye irritation persists: get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with the local/regional/national/international regulations.

### Additional hazard information (EU): No.

#### **Abbreviations:**

Acute Tox. 4– Acute toxicity– if swallowed; hazard category 4. Skin Irrit. 2– Skin irritation, hazard category 2.

Skin Sens. 1– Skin sensitisation, hazard category 1.

Eye Dam. 1- Serious eye damage; hazard category 1. Eye Irrit. 2- Eye irritation, hazard category 2.

Repr. 1B- Reproductive toxicity. subcategory 1B.

STOT RE 2 – Specific target organ toxicity – Repeated exposure; hazard category 2.

Aquatic Acute 1 - Hazardous to the aquatic environment - short-term (acute) hazard to aquatic organisms; hazard category 1.

Aquatic Chronic 1 – Hazardous to the aquatic environment - Long-term (chronic) hazard to aquatic organisms; hazard category 1.

Aquatic Chronic 2 - Hazardous to the aquatic environment - Long-term (chronic) hazard to aquatic organisms; hazard category 2.

#### **Acronyms:**

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

RID International Maritime Dangerous Goods Code.

IMDG – International Maritime Dangerous Goods Code.

IATA – International Air Transport Association.

ICAO – International Civil Aviation Organisation.

IMO – International Maritime Organisation.

vPvB - Very Persistent and Very Bio-Accumulative

PBT – Persistent, Bioaccumulative and Toxic.

LD50 – Lethal dose to 50 per cent of the population studied (average lethal dose).

LC50 – Lethal concentration to 50% of populations studied (average lethal concentration).

EC50 – Average effective concentration.

IC50 – Half maximal inhibitory concentration.

CAS - Chemical Abstracts Service.

CEN – European Committee for Standardization.

STOT – Specific target organ toxicity.

DNEL - Derived No-Effect Level.

PNEC – Predicted No-Effect Concentration.

NOEC – No Observed Effect Concentration.

STEL - Short-term exposure limit.

TWA - Time-weighted average.

SDS – safety data sheet.

### **REFERENCES TO KEY LITERATURE AND DATA SOURCES:**

- Data provided by the European Chemicals Bureau (ECB), European Chemicals Agency (ECHA), Swedish Chemicals Agency (KEMI), International Laboratory Organisation (ILO), TOXNET websites.

### **Limitation of Liability:**

The data provided in this safety data sheet must be made available to anyone working with the product. The data reflect today's level of knowledge, national and EU laws. The information provided indicates the safety requirements for the use of this product but does not disclose other specific product features.

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The information is correct to the best of our knowledge as of the release date of the product safety data sheet. This is not a specification sheet and any data provided should not be considered a specification. The information in this product safety data sheet has been obtained from sources we believe to be reliable. However, the information is provided without any warranty, expressed or implied, as to its correctness. Certain information and conclusions in this document are derived from sources other than direct test data of the product itself. Product management, storage, use and disposal conditions or methods are outside our control and we may not know about them. For this and other reasons, we do not assume responsibility and clearly refuse liability for loss, damage or expenses, but as related to the, warehousing, use or utilization of this product. If the product is used as a component in another product, the product safety data sheet information cannot be valid.