

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

1.1. Product identifier

Product form : Mixture
Trade name : Polyamix NPK 20-20-20+TE
Type of product : Fertilizer
Product group : Blend

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Anorel NV
Lintsesteenweg 632
2540 Hove
T +3234880233
anorel@anorel.net - www.anorel.net

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
potassium nitrate	(CAS-No.) 7757-79-1 (EC-No.) 231-818-8 (REACH-no) 01-2119488224-35	30 - 40	Not classified
ammonium dihydrogen phosphate	(CAS-No.) 7722-76-1 (EC-No.) 231-764-5 (REACH-no) 01-2119488166-29	20 - 30	Not classified
urea	(CAS-No.) 57-13-6 (EC-No.) 200-315-5 (REACH-no) 01-2119463277-33	20 - 30	Not classified

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Urea Phosphate	(CAS-No.) 4861-19-2 (EC-No.) 225-464-3 (REACH-no) 01-2119489460-34	1 - 5	Skin Corr. 1B, H314
tetrapotassium pyrophosphate, anhydrous	(CAS-No.) 7320-34-5 (EC-No.) 230-785-7 (REACH-no) 01-2119489369-18	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Cu-EDTA	(CAS-No.) 14025-15-1 (EC-No.) 237-864-501 (REACH-no) 01-2119963944-23	< 0,5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
boric acid substance listed as REACH Candidate	(CAS-No.) 10043-35-3 (EC-No.) 233-139-2 (EC Index-No.) 005-007-00-2 (REACH-no) 01-2119486683-25	< 0,5	Repr. 1B, H360FD

Specific concentration limits:

Name	Product identifier	Specific concentration limits
boric acid	(CAS-No.) 10043-35-3 (EC-No.) 233-139-2 (EC Index-No.) 005-007-00-2 (REACH-no) 01-2119486683-25	(C >= 5,5) Repr. 1B, H360FD

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: May cause moderate irritation.
Symptoms/effects after eye contact	: May cause slight irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Mechanically recover the product.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

boric acid (10043-35-3)		
Belgium	Limit value (mg/m ³)	2 mg/m ³ (Borate, composés inorganiques de; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m ³)	6 mg/m ³
USA - ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (Inhalable fraction)
USA - ACGIH	ACGIH STEL (mg/m ³)	6 mg/m ³ (Inhalable fraction)

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline powder.
Colour	: light brown.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
pH solution	: 4,5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: < °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: Not applicable
Density	: 1000 kg/m ³
Solubility	: Soluble in water. Soluble in acetic acid.
Log Pow	: No data available

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Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

Bulk density	: 1000 kg/m ³
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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

urea (57-13-6)	
LD50 oral rat	15000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral)
potassium nitrate (7757-79-1)	
LD50 oral rat	3750 mg/kg bodyweight (Rat)
LD50 dermal rat	> 5000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 0,527 mg/l/4h
boric acid (10043-35-3)	
LD50 oral rat	2660 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >2600 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 2000 mg/kg Rabbit; Experimental value; FIFRA (40 CFR)
LC50 inhalation rat (mg/l)	> 2,12 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male/female, Experimental value)
ammonium dihydrogen phosphate (7722-76-1)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Male/female, Experimental value)
LD50 dermal rat	> 5000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male/female, Experimental value)
LC50 inhalation rat (mg/l)	> 5 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male/female, Read-across)
Cu-EDTA (14025-15-1)	
LD50 oral rat	890 mg/kg
Urea Phosphate (4861-19-2)	
LD50 oral rat	≈ 2600 mg/kg
tetrapotassium pyrophosphate, anhydrous (7320-34-5)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 4640 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 1,1 mg/l/4h
Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Not classified

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Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Urea Phosphate (4861-19-2)	
NOAEL (chronic, oral, animal/male, 2 years)	> 1500 mg/kg bodyweight
Reproductive toxicity	: Not classified

STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Urea Phosphate (4861-19-2)	
NOAEL (oral, rat, 90 days)	≈ 250 mg/kg bodyweight/day
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

urea (57-13-6)	
LC50 fish 1	> 6810 mg/l (96 h, Leuciscus idus, Experimental value, Nominal concentration)
EC50 Daphnia 1	> 10000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)

potassium nitrate (7757-79-1)	
LC50 fish 1	1378 mg/l (96 h, Poecilia reticulata, Static system)
ErC50 (algae)	> 1700 mg/l
ErC50 (other aquatic plants)	10d

boric acid (10043-35-3)	
LC50 fish 1	79,7 mg/l (EPA OPPTS 850.1075, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value)
EC50 Daphnia 1	133 mg/l (ASTM E729-80, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 (algae)	52,5 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Weight of evidence)

ammonium dihydrogen phosphate (7722-76-1)	
LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value)
ErC50 (algae)	> 97,1 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)

Urea Phosphate (4861-19-2)	
LC50 fish 1	> 9100 mg/l
EC50 Daphnia 1	> 100 mg/l Daphnia magna
EC50 72h algae (1)	> 100 mg/l Desmodesmus subspicatus

tetrapotassium pyrophosphate, anhydrous (7320-34-5)	
LC50 fish 1	> 750 mg/l (48 h, Leuciscus idus)
EC50 Daphnia 1	> 100 mg/l Daphnia magna

12.2. Persistence and degradability

urea (57-13-6)	
Persistence and degradability	Readily biodegradable in water.
ThOD	0,27 g O ₂ /g substance

potassium nitrate (7757-79-1)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable

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potassium nitrate (7757-79-1)	
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
boric acid (10043-35-3)	
Persistence and degradability	Not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
ammonium dihydrogen phosphate (7722-76-1)	
Persistence and degradability	Biodegradability in water: no data available.
Biochemical oxygen demand (BOD)	Not applicable (inorganic)
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Urea Phosphate (4861-19-2)	
Persistence and degradability	% biodegradation.
Biodegradation	≈ 100 %
tetrapotassium pyrophosphate, anhydrous (7320-34-5)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
12.3. Bioaccumulative potential	
urea (57-13-6)	
BCF fish 1	1 (72 h, Brachydanio rerio, Fresh water, Literature study)
Log Pow	< -1,73 (Experimental value, EU Method A.8: Partition Coefficient)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
potassium nitrate (7757-79-1)	
Bioaccumulative potential	Low bioaccumulation potential.
boric acid (10043-35-3)	
BCF fish 1	< 0,1 (60 day(s), Oncorhynchus tshawytscha, Flow-through system, Fresh water, Weight of evidence, Fresh weight)
BCF fish 2	< 0,1 (BCF; 60 days; Oncorhynchus tshawytscha; Flow-through system; Fresh water; Weight of evidence)
Log Pow	-1,09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)
Bioaccumulative potential	Low bioaccumulation potential.
ammonium dihydrogen phosphate (7722-76-1)	
Bioaccumulative potential	Low bioaccumulation potential.
Urea Phosphate (4861-19-2)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
tetrapotassium pyrophosphate, anhydrous (7320-34-5)	
Bioaccumulative potential	Bioaccumulation: not applicable.
12.4. Mobility in soil	
urea (57-13-6)	
Log Koc	-1,43 - -1,19 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.
potassium nitrate (7757-79-1)	
Ecology - soil	Low potential for adsorption.
boric acid (10043-35-3)	
Ecology - soil	May be harmful to aquatic organisms, to flora, to soil organisms.

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ammonium dihydrogen phosphate (7722-76-1)

Ecology - soil : No (test) data on mobility of the substance available.

12.5. Results of PBT and vPvB assessment

Component	
urea (57-13-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
potassium nitrate (7757-79-1)	PBT: not relevant – no registration required vPvB: not relevant – no registration required
ammonium dihydrogen phosphate (7722-76-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Urea Phosphate (4861-19-2)	PBT: not relevant – no registration required vPvB: not relevant – no registration required
tetrapotassium pyrophosphate, anhydrous (7320-34-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list $\geq 0,1$ % / SCL

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Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 1, low hazard to waters (Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : boric acid is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : boric acid is listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product