

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

1.1. Product identifier

Product form : Mixture
Product name : Aarde groei B
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Consumer use, Professional use
Use of the substance/mixture : Plant nutrition

Title	Use descriptors
Aarde groei B	SU21, SU22, PC12

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Dutchpro B.V.
Asterweg 113
1031 HM Amsterdam - Nederland
T +31 (0)20 4480854
info@dutchpro.com

Correspondence address

Dutchpro B.V.
De Steiger 97
1351 AH Almere - Nederland

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU 2015: According to Regulation (EU) 2015/830 (REACH Annex II)

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Precautionary statements (CLP) : P102 - Keep out of reach of children.

2.3. Other hazards

Other hazards not contributing to the classification : The mixture need not be classified as Skin Corr. in spite of the extreme pH. The mixture has a low buffer capacity (Acid / Alkaline reserve). Met. Corr.1 not apply based on ECHA file ($\leq 20\%$). Oxidizing classification not apply because of aqueous solution.

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Mentioned percentages are in (w/w %)

Name	Product identifier	% w/w (% w/w)	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	5 - 10	Ox. Sol. 3, H272

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phosphoric acid 59 %, orthophosphoric acid 59 % (Note B)	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	1 - 5	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314
Potassium sulfate	(CAS-No.) 7778-80-5 (EC-No.) 231-915-5 (REACH-no) 01-2119489441-34	1 - 5	Not classified

Specific concentration limits:

Name	Product identifier	Specific concentration limits
phosphoric acid 59 %, orthophosphoric acid 59 %	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	(10 =<C < 25) Eye Irrit. 2, H319 (10 =<C < 25) Skin Irrit. 2, H315 (C >= 25) Skin Corr. 1B, H314

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: "nitric acid ... %".

In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a ght/weight basis.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Assure fresh air breathing. Allow the victim to rest. In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after skin contact	: Wash with plenty of water/.... In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents. Consult an eye specialist.
First-aid measures after ingestion	: Rinse mouth. Drink plenty of water. Do NOT induce vomiting. In case of loss of conscience place the victim in the recovery position. Obtain emergency medical attention.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing. Risk of pneumonia. Risk of lung oedema.
Symptoms/effects after skin contact	: May cause slight irritation. Symptoms: Redness. Yellow skin. Phosphoric acid. Expect absorption through the skin.
Symptoms/effects after eye contact	: Splashes in the eyes can cause irritation and may even result in irreparable damage. Symptoms: Redness, pain. Decrease of vision. Direct contact may result in corneal injury. Burns.
Symptoms/effects after ingestion	: Blisters. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Blue skin.

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	: Foam. Dry powder. Carbon dioxide. Water spray. Sand. Making extinguishing agents environment-friendly.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: At high temperature may liberate dangerous gases. Nitrogen oxides. Phosphorus oxides.
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5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Provide adequate ventilation. Use protective clothing.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Use suitable disposal containers. Store away from other materials. Wash away remainder with plenty of water.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Handle and open container with care. Avoid aerosolbuilding. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Hygiene measures : Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep only in original container. Store in a dark area. Keep out of frost. Protect from heat and direct sunlight.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : 10 - 30 °C

Packaging materials : Suitable material: Polyethylene.

7.3. Specific end use(s)

No supplementary information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

phosphoric acid 59 %, orthophosphoric acid 59 % (7664-38-2)

EU	Local name	Orthophosphoric acid
EU	IOELV TWA (mg/m ³)	1 mg/m ³
EU	IOELV STEL (mg/m ³)	2 mg/m ³
EU	Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom	Local name	Orthophosphoric acid
United Kingdom	WEL TWA (mg/m ³)	1 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	2 mg/m ³
United Kingdom	Regulatory reference	EH40. HSE

Potassium nitrate (7757-79-1)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal 20,8 mg/kg bodyweight/day

Long-term - systemic effects, inhalation 36,7 mg/m³

DNEL/DMEL (General population)

Long-term - systemic effects, oral 12,5 mg/kg bodyweight/day

Long-term - systemic effects, inhalation 10,9 mg/m³

Long-term - systemic effects, dermal 12,5 mg/kg bodyweight/day

PNEC (Water)

PNEC aqua (freshwater) 0,45 mg/l

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Potassium nitrate (7757-79-1)

PNEC aqua (marine water) 0,045 mg/l

PNEC aqua (intermittent, freshwater) 4,5 mg/l

PNEC (STP)

PNEC sewage treatment plant 18 mg/l

phosphoric acid 59 %, orthophosphoric acid 59 % (7664-38-2)

DNEL/DMEL (Workers)

Acute - local effects, inhalation 1 mg/m³

Long-term - systemic effects, inhalation 10,7 mg/m³

DNEL/DMEL (General population)

Long-term - systemic effects, oral 0,1 mg/kg bodyweight/day

Long-term - systemic effects, inhalation 4,57 mg/m³

Long-term - local effects, inhalation 0,36 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

Hand protection:

Wear suitable gloves tested to EN374. Suitable material: Fluoroelastomer (Viton®) (FKM), butyl rubber, Polyvinylchloride (PVC), Nitrile rubber, Neoprene. Layer thickness : 0,4 - 0,7 mm. penetration time (maximum wearing period): > 480 min. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Eye protection:

Wear eye glasses with side protection according to EN 166.

Skin and body protection:

Wear suitable protective clothing. Standard. EN 14605. If on skin, take off contaminated clothing

Respiratory protection:

Not required for normal conditions of use. Provide adequate ventilation

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use. Keep away from food, drink and animal feedingstuffs. Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: odourless.
Odour threshold	: not determined
pH	: 2,1
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: not determined
Flash point	: > 93 °C
Auto-ignition temperature	: No data available

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Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: not determined
Relative vapour density at 20 °C	: No data available
Relative density	: not determined
Solubility	: Water: Completely soluble.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: not determined
Explosive properties	: not determined.
Oxidising properties	: not determined.
Explosive limits	: not determined

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable in use and storage conditions as recommended in item 7.

10.2. Chemical stability

Stable in use and storage conditions as recommended in item 7. Storage at elevated temperatures may cause pressure build-up in sealed containers. Keep out of frost.

10.3. Possibility of hazardous reactions

Reacts with (strong) reducers. and with (some) bases.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Protect material from direct sunlight. Protect against frost.

10.5. Incompatible materials

Corrosive to metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Combustion produces dangerous gases. Nitrogen oxides. Phosphorous oxide.

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

Potassium nitrate (7757-79-1)

LD50 oral rat	> 2000 mg/kg bw/day
LD50 dermal rat	> 5000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 527 mg/m ³ (4 h)

phosphoric acid 59 %, orthophosphoric acid 59 % (7664-38-2)

LD50 oral rat	2000 mg/kg bodyweight (OECD 423 method)
LD50 dermal rabbit	2740 mg/kg
LC50 inhalation rat (mg/l)	3846 mg/l 1 hour (OECD 403)

Potassium sulfate (7778-80-5)

LD50 oral rat	2000 mg/kg
LD50 dermal rat	2000 mg/kg
LC50 inhalation rat (mg/l)	3,6 mg/m ³ (4h)
Skin corrosion/irritation	: Not classified pH: 2,1
Additional information	: May cause skin irritation irritation of mucous membranes
Serious eye damage/irritation	: Not classified pH: 2,1

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Additional information	: May cause moderate irritation to the eyes
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met

phosphoric acid 59 %, orthophosphoric acid 59 % (7664-38-2)

LOAEL (oral, rat, 90 days)	155 mg/kg bodyweight/day
NOAEL (subacute, oral, animal/male, 28 days)	322,88 - 492,77 mg/kg bodyweight

Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

Potassium nitrate (7757-79-1)

LC50 fishes	100 - 1378 mg/l
EC50 Daphnia	490 mg/l

phosphoric acid 59 %, orthophosphoric acid 59 % (7664-38-2)

EC50 Daphnia	100 mg/l
EC50 72h algae (1)	100 mg/l
NOEC (acute)	56 mg/l (48 h)
NOEC (chronic)	100 mg/l (72 h)

Potassium sulfate (7778-80-5)

LC50 fishes	680 mg/l
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12.2. Persistence and degradability

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Persistence and degradability	Potentially biodegradable.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Bioaccumulation unlikely.
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12.4. Mobility in soil

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Ecology - soil	Do not allow to enter undiluted resp. in large quantities into surface water or into drains.
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12.5. Results of PBT and vPvB assessment

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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

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12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : After use, container has to be completely emptied and closed.
Ecology - waste materials : Avoid release to the environment.
European List of Waste (LoW) code : 06 10 00 - wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture
06 10 02* - wastes containing dangerous substances

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				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008

phosphoric acid 59 %, orthophosphoric acid 59 %

3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

phosphoric acid 59 %, orthophosphoric acid 59 %

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Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Child-resistant fastening : Not applicable

Tactile warning : Not applicable

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Revised safety data sheet in accordance with commission regulation (EU) No 2015/830.

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

Data sources : ECHA (European Chemicals Agency).

Other information : **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Met. Corr. 1	Corrosive to metals, Category 1
Ox. Sol. 3	Oxidising Solids, Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

Full text of use descriptors

PC12	Fertilizers
SU21	Consumer uses: Private households (= general public = consumers)
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

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