PH-Groei
Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

1.1. Product identifier

Product form : Mixtures

Product name : PH-Groei

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
PH-Groei	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

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]

Corrosive to metals, Category 1	H290
Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 1A	H314

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Corrosive to the respiratory tract. Harmful to the environment.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05

GHS07

Signal word (CLP) : Danger

Hazardous ingredients : nitric acid 38 %

Hazard statements (CLP) : H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H332 - Harmful if inhaled

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P260 - Do not breathe vapours, mist

P280 - Wear protective gloves, protective clothing, eye protection, Breathing equipment
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P310 - Immediately call a POISON CENTER, a doctor
P405 - Store locked up
P501 - Dispose of contents/container to according to local regulations

2.3. Other hazards

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	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
nitric acid 38 % (Note B)	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23	30 - 50	Ox. Liq. 2, H272 Met. Corr. 1, H290 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1A, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
nitric acid 38 %	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23	(5 =<C < 20) Skin Corr. 1B, H314 (C >= 20) Skin Corr. 1A, H314 (65 =<C < 99) Ox. Liq. 3, H272 (C >= 99) Ox. Liq. 2, H272

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 : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. In case of loss of conscience place the victim in the recovery position.

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

Symptoms/effects : Causes severe skin burns and eye damage.

Symptoms/effects after inhalation : Corrosive to the respiratory tract. 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. Repeated long inhalation of decomposition products can lead to lung oedema.

Symptoms/effects after skin contact : Causes severe burns. Redness. Blisters. Burning sensation. Pain. Yellow skin.

Symptoms/effects after eye contact : Splashes in the eyes can cause irritation and may even result in irreparable damage. Redness, pain. Tears. Decrease of vision.

Symptoms/effects after ingestion : Blisters. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Treat symptomatically. Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Carbon dioxide. Water spray. Sand. Making extinguishing agents environment-friendly.

Unsuitable extinguishing media : Do not use a heavy water stream. Foam.

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. Do not breathe vapours.

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.

Other information : Evacuate the danger area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Consult an expert. Ensure that there is a suitable ventilation system. Evacuate and limit access. Keep public away from danger area. Avoid inhalation of vapours. Wear personal protective equipment.

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. Dispose of rinse water as waste water.

Other information : Stop leak if safe to do so.

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

Additional hazards when processed : Avoid all contact with skin, eyes, or clothing. Avoid inhalation of vapours. Avoid aerosolbuilding. Ensure adequate ventilation. Remove ignition sources.

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Do not breathe vapours, mist. Handle and open container with care. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove immediately contaminated clothing. Keep away from sources of ignition - No smoking.

Hygiene measures : Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation. Handle and open container with care.

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Keep only in original container. Close container tightly after use. Protect from heat and direct sunlight. Keep out of frost. Store in a dark area. Store locked up. Keep container closed when not in use. Containers which are opened should be properly resealed and kept upright to prevent leakage. Floors should be impervious, resistant to liquids and easy to clean. Store in corrosive resistant container with a resistant inner liner.

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

nitric acid 38 % (7697-37-2)		
EU	Local name	Nitric acid
EU	IOELV STEL (mg/m³)	2,6 mg/m³
EU	IOELV STEL (ppm)	1 ppm
United Kingdom	Local name	Nitric acid
United Kingdom	WEL STEL (mg/m³)	2,6 mg/m³
United Kingdom	WEL STEL (ppm)	1 ppm

nitric acid 38 % (7697-37-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	2,6 mg/m³
Long-term - local effects, inhalation	2,6 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	1,3 mg/m³
Long-term - local effects, inhalation	1,3 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Provide sufficient air exchange and/or exhaust. Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Safety glasses. Protective clothing. Insufficient ventilation: wear respiratory protection.

Hand protection:

Wear suitable gloves tested to EN374. Suitable material: butyl rubber, Polyvinylchloride (PVC). Layer thickness : 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 trough 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:

Use eye protection according to EN 166, designed to protect liquid splashes. Face shield

Skin and body protection:

Wear suitable protective clothing. Recommendation: Chemical resistant suit. EN 14605. Boots

Respiratory protection:

If the occupational exposure limit is exceeded: This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type E according to standard EN 14387) is used. Self-contained breathing apparatus should be worn in case of medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and immediatley after using the product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless.

Odour	:	Acrid.
Odour threshold	:	0,29 ppm
pH	:	< 1
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	< -31,1 °C
Freezing point	:	No data available
Boiling point	:	110,1 °C
Flash point	:	> 93 °C
Auto-ignition temperature	:	not determined
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	108,4 hPa (20°C)
Relative vapour density at 20 °C	:	No data available
Relative density	:	1,24 Relative density, liquid (water=1)
Solubility	:	Water: > 100 g/l Completely soluble.
Log Pow	:	No data available
Viscosity, kinematic	:	not determined
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 under normal conditions. Storage at elevated temperatures may cause pressure build-up in sealed containers. Keep out of frost.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Reacts with (strong) reducers. and with (some) bases.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Keep away from open flames, hot surfaces and sources of ignition. Protect against frost.

10.5. Incompatible materials

Corrosive to metals. Attacks some forms of plastic, rubber and coatings. Organic materials. Bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Corrosive vapours. nitrogen oxides. Phosphorous oxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust,mist: Harmful if inhaled.

ATE dust/mist	1,316 mg/l/4h

nitric acid 38 % (7697-37-2)	
LC50 inhalation rat (mg/l)	2,65 mg/l

Skin corrosion/irritation	:	Causes severe skin burns and eye damage. pH: < 1
Serious eye damage/irritation	:	Serious eye damage, category 1, implicit pH: < 1
Respiratory or skin sensitisation	:	Not classified
Additional information	:	Based on available data, the classification criteria are not met
Germ cell mutagenicity	:	Not classified 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
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

nitric acid 38 % (7697-37-2)	
LC50 fishes	12 g/l

12.2. Persistence and degradability

PH-Groei	
Persistence and degradability	Potentially biodegradable.

12.3. Bioaccumulative potential

PH-Groei	
Bioaccumulative potential	Bioaccumulation unlikely.

12.4. Mobility in soil

PH-Groei	
Ecology - soil	Do not allow to enter undiluted resp. in large quantities into surface water or into drains.

12.5. Results of PBT and vPvB assessment

PH-Groei
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

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.
Waste 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 01 05* - nitric acid and nitrous acid

SECTION 14: Transport information

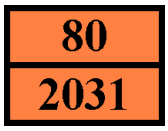
In accordance with ADR / IATA / IMDG / RID

ADR	IMDG	IATA	RID
14.1. UN number			
2031	2031	2031	2031
14.2. UN proper shipping name			
NITRIC ACID	NITRIC ACID	Nitric acid	NITRIC ACID
Transport document description (ADR)			
UN 2031 NITRIC ACID, 8, II, (E)	UN 2031 NITRIC ACID, 8, II	UN 2031 Nitric acid, 8, II	UN 2031 NITRIC ACID, 8, II
14.3. Transport hazard class(es)			
8	8	8	8
			

ADR	IMDG	IATA	RID
14.4. Packing group			
II	II	II	II
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
No supplementary information available			

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	:	C1
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02
Mixed packing provisions (ADR)	:	MP15
Portable tank and bulk container instructions (ADR)	:	T8
Portable tank and bulk container special provisions (ADR)	:	TP2
Tank code (ADR)	:	L4BN
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	2
Hazard identification number (Kemler No.)	:	80
Orange plates	:	
Tunnel restriction code (ADR)	:	E
EAC code	:	2P
APP code	:	B

- Transport by sea

Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
Special packing provisions (IMDG)	:	PP81
IBC packing instructions (IMDG)	:	IBC02
IBC special provisions (IMDG)	:	B15, B20
Tank instructions (IMDG)	:	T8
Tank special provisions (IMDG)	:	TP2
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-B
Stowage category (IMDG)	:	D
Segregation (IMDG)	:	SG6, SG16, SG17, SG19
Properties and observations (IMDG)	:	Colourless liquid.Oxidant; may cause fire in contact with organic materials such as wood, cotton or straw, evolving highly toxic gases (brown fumes). Highly corrosive to most metals. Causes severe burns to skin, eyes and mucous membranes.
MFAG-No	:	157

- Air transport

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Forbidden
PCA limited quantity max net quantity (IATA)	:	Forbidden
PCA packing instructions (IATA)	:	Forbidden
PCA max net quantity (IATA)	:	Forbidden
CAO packing instructions (IATA)	:	855
CAO max net quantity (IATA)	:	30L
ERG code (IATA)	:	8L

- Rail transport

Classification code (RID)	:	C1
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02
Special packing provisions (RID)	:	PP81, B15
Mixed packing provisions (RID)	:	MP15
Portable tank and bulk container instructions (RID)	:	T8
Portable tank and bulk container special provisions (RID)	:	TP2
Tank codes for RID tanks (RID)	:	L4BN
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	CE6
Hazard identification number (RID)	:	80

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	nitric acid 38 %
3(a) 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 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	nitric acid 38 %
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	PH-Groei - nitric acid 38 %

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out

SECTION 16: Other information

Indication of changes:
Revised safety data sheet in accordance with commisssion 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

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. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Met. Corr. 1	Corrosive to metals, Category 1
Ox. Liq. 2	Oxidising Liquids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H272	May intensify fire; oxidiser
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H331	Toxic if inhaled
H332	Harmful if inhaled
PC12	Fertilizers
SU21	Consumer uses: Private households (= general public = consumers)
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Met. Corr. 1	H290	On basis of test data
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Corr. 1A	H314	On basis of test data

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