SAFETY DATA SHEET
(in accordance with Regulation (EU) 2020/878)

1680-004A-Advanced Nutrients Connoisseur Grow Part "A" pH-Perfect Base Nutrient

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: Advanced Nutrients Connoisseur Grow Part "A" pH-Perfect Base Nutrient
Product Code: 1680-004A
UFI: K8N4-60VR-P00P-4YVV

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

Fertilising Product

Uses advised against:
Not to be used as food or feed in any forms.

1.3 Details of the supplier of the safety data sheet.

Company: **Advanced Nutrients SP, SLU**
Address: Calle 23, Nave 6 Zona FrancaParc Logistic
City: 08040 - Barcelona
Province: Barcelona
Telephone: (+34) 930117163
E-mail: info@advancednutrients.com
Web: www.advancednutrients.com

1.4 Emergency telephone number: CHEMTREC Emergency Phone Numbers:
1-800-424-9300 (North America, including Canada and Mexico) CCN 613830.
1+703-527-3887 (International) CCN 613830.

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.
In accordance with Regulation (EC) No 1272/2008:
Eye Dam. 1 : Causes serious eye damage.

2.2 Label elements.
Labelling in accordance with Regulation (EC) No 1272/2008:
Pictograms:



Signal Word:
Danger
Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

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P103 Read carefully and follow all instructions.
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.
P310 Immediately call a POISON CENTER or doctor/physician.

Contains:
nitric acid, ammonium calcium salt

2.3 Other hazards.

The mixture does not contain substances classified as PBT.
The mixture does not contain substances classified as vPvB.
The mixture does not contain any endocrine disrupting properties substances.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.
Not applicable. This product is a mixture.

3.2 Mixtures.
Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

Identifiers	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008	
			Classification	Specifics concentration limits and Acute toxicity estimate
CAS No: 15245-12-2 EC No: 239-289-5 Registration No: 01-2119493947-16-XXXX	nitric acid, ammonium calcium salt	3 - 25 %	Acute Tox. 4, H302 - Eye Dam. 1, H318	-
Index No: 005-007-00-2 CAS No: 10043-35-3 EC No: 233-139-2 Registration No: 01-2119486683-25-XXXX	[5] boric acid	0.1 - 0.3 %	Repr. 1B, H360FD	-
CAS No: 10034-96-5	[1] manganese(2+) hydrate sulfate	0 - 2.5 %	Aquatic Chronic 2, H411 - STOT RE 2, H373	-

(*)*The complete text of the H phrases is given in section 16 of this Safety Data Sheet.*
** See Regulation (EC) No. 1272/2008, Annex VI, section 1.2.*
[1] Substance with a European Union exposure limit in the workplace (see section 8.1).
[2] Substance with a national workplace exposure limit (see section 8.1).
[5] Substance included in the list established under Article 59, paragraph 1, REACH (Candidate substance).

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

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Inhalation.
Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.
Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Dont let the person to rub the affected eye.

Skin contact.
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.
If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.
Corrosive Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.
Contact with eyes may cause irreversible damage.

4.3 Indication of any immediate medical attention and special treatment needed.
Request immediate medical attention. Never administer anything orally to persons who are unconscious. Do not induce vomiting. If the person vomits, clear the respiratory tract. Cover the affected area with a dry sterile bandage. Protect the affected area from pressure or friction.

SECTION 5: FIREFIGHTING MEASURES.

The product is NOT classified as flammable, in case of fire the following measures should be taken:

5.1 Extinguishing media.
Suitable extinguishing media:
Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:
Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance or mixture.
Special risks.
Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.
Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.
For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.
Product not classified as hazardous for the environment, avoid spillage as much as possible.

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6.3 Methods and material for containment and cleaning up.
Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.
Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations (see section 13).

6.4 Reference to other sections.
For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.
For personal protection, see section 8.
In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety.
Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.
Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25 º C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).
Fertiliser [REACH Product Category (PC) 12].

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m³
manganese(2+) hydrate sulfate	10034-96-5	European Union [1]	**Eight hours**		0,2 (as manganese, inhalable fraction) 0,05 (as manganese, respirable fraction)
			Short term		

[1] According both Binding Occupational Esposure Limits (BOELVs) and Indicative Occupational Exposure Limits (IOELVs) adopted by Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL).
The product does NOT contain substances with Biological Limit Values.
Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Type	Value
nitric acid, ammonium calcium salt CAS No: 15245-12-2 EC No: 239-289-5	DNEL (Workers)	Inhalation, Chronic, Systemic effects	98 (mg/m³)

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boric acid CAS No: 10043-35-3 EC No: 233-139-2	DNEL (Workers)	Inhalation, Chronic, Systemic effects	8,3 (mg/m³)

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

8.2 Exposure controls.

Measures of a technical nature:
Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	**100 %**		
Uses:	**Fertilising Product**		
Breathing protection:			
If the recommended technical measures are observed, no individual protection equipment is necessary.			
Hand protection:			
PPE:	Work gloves.		
Characteristics:	«CE» marking, category I.		
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.): > 480	Material thickness (mm): 0,35
Eye protection:			
PPE:	Protective goggles with built-in frame.		
Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.		
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.		
Skin protection:			
PPE:	Protective clothing.		
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.		
CEN standards:	EN 340		
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.		
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.		
PPE:	Work footwear.		
Characteristics:	«CE» marking, category II.		
CEN standards:	EN ISO 13287, EN 20347		
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.		
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

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9.1 Information on basic physical and chemical properties.
Physical state: Liquid
Colour: Deep burgundy, opaque
Odour: Mineral
Odour threshold: Not available
Melting point: Not available
Freezing point: Not available
Boiling point or initial boiling point and boiling range: >=100 ºC
Flammability: Not available
Lower explosion limit: Not available
Upper explosion limit: Not available
Flash point: Not available
Auto-ignition temperature: Not available
Decomposition temperature: Not available
pH: 5.21-5.69 (100%) (pH Meter/potentiometric/electrometric method)
Kinematic viscosity: Not available
Solubility: Not available
Hydrosolubility: Miscible in water
Liposolubility: Not available
Partition coefficient n-octanol/water (log value): Not available
Vapour pressure: Not available
Absolute density: Not available
Relative density: 1.186-1.194 (Hydrometer (ISO 387))
Relative vapour density: Not available
Particle characteristics: Not available

9.2 Other information
Not applicable/Not available due to the nature/properties of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.
The product does not present hazards by their reactivity.

10.2 Chemical stability.
Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.
The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.
Avoid any improper handling.

10.5 Incompatible materials.
Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.
No decomposition if used for the intended uses.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on hazard classes as defined in Regulation (EC) Nº 1272/2008.
Splashes in the eyes can cause serious and irreversible damage.

Toxicological information about the substances present in the composition.

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Name	Acute toxicity			
	Type	Test	Kind	Value
manganese(2+) hydrate sulfate CAS No: 10034-96-5 EC No:	Oral	LD50	Rat	2150 mg/kg [1] [1] Indian Journal of Pharmacology. Vol. 23, Pg. 153, 1991.
	Dermal			
	Inhalation			

Unless stated otherwise, calculation methods established in Part 3 of Annex I of Regulation (EC) 1272/2008 were used for the purpose of classification.

a) acute toxicity;
Not conclusive data for classification.

Acute Toxicity Estimate (ATE):
Mixtures:
ATE (Oral) = 3.846 mg/kg

b) skin corrosion/irritation;
The mixture does not contain classified substances above relevant thresholds. Based on available data, the classification criteria are not met (method: calculation; source: supplier SDS).

c) serious eye damage/irritation;
Product classified:
Serious eye damage, Category 1: Causes serious eye damage.

d) respiratory or skin sensitisation;
The mixture does not contain classified substances above relevant thresholds. Based on available data, the classification criteria are not met (method: calculation; source: supplier SDS).

e) germ cell mutagenicity;
The mixture does not contain classified substances above relevant thresholds. Based on available data, the classification criteria are not met (method: calculation; source: supplier SDS).

f) carcinogenicity;
The mixture does not contain classified substances above relevant thresholds. Based on available data, the classification criteria are not met (method: calculation; source: supplier SDS).

g) reproductive toxicity;
The mixture does not contain classified substances above relevant thresholds. Based on available data, the classification criteria are not met (method: calculation; source: supplier SDS).

h) STOT-single exposure;
The mixture does not contain classified substances above relevant thresholds. Based on available data, the classification criteria are not met (method: calculation; source: supplier SDS).

i) STOT-repeated exposure;
The mixture does not contain classified substances above relevant thresholds. Based on available data, the classification criteria are not met (method: calculation; source: supplier SDS).

j) aspiration hazard;
The mixture does not contain classified substances above relevant thresholds. Based on available data, the classification criteria are not met (method: calculation; source: supplier SDS).

11.2 Information on other hazards.
Endocrine disrupting properties
This product does not contain components with endocrine-disrupting properties with effects on human health.

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Other information
There is no information available on other adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
manganese(2+) hydrate sulfate CAS No: 10034-96-5 EC No:	Fish	LC50	Fish	130 mg/l (96 h) [1] [1] Lewis, M. 1978. Acute Toxicity of Copper, Zinc, and Manganese in Single and Mixed Salt Solutions to Juvenile Longfin Dace, Agosia chrysogaster. J.Fish Biol. 13(6):695-700
	Aquatic invertebrates	LC50	Crustaceans	17,6 mg/l (48 h) [1] [1] Kimball, G. 1978. The Effects of Lesser Known Metals and One Organic to Fathead Minnows (Pimephales promelas) and Daphnia magna. Manuscr., Dep.of Entomol., Fish.and Wildl., Univ.of Minnesota, Minneapolis, MN :88 p.
	Aquatic plants			

12.2 Persistence and degradability.
Not applicable (no substances identified in section 3 as hazardous to the environment).
Not applicable (no substances identified in section 3 as hazardous to the environment).
No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.
Not applicable (no substances identified in section 3 as hazardous to the environment).

12.4 Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.
No information is available about the results of PBT and vPvB assessment of the product.

12.6 Endocrine disrupting properties.
This product doesn't contain components with environmental endocrine disrupting properties.

12.7 Other adverse effects.
The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.
Large quantities of fertiliser released into the environment may kill vegetation and fish and cause algae blooms if bodies of water are contaminated.

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

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Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.
Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number or ID number.
Transportation is not dangerous.

14.2 UN proper shipping name.
Description:
ADR/RID: Not classified as hazardous for transport.
IMDG: Not classified as hazardous for transport.
ICAO/IATA: Not classified as hazardous for transport.

14.3 Transport hazard class(es).
Transportation is not dangerous.

14.4 Packing group.
Transportation is not dangerous.

14.5 Environmental hazards.
Transportation is not dangerous.
Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): Not applicable.

14.6 Special precautions for user.
Transportation is not dangerous.

14.7 Maritime transport in bulk according to IMO instruments.
Not classified as hazardous for transport.

SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.
The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.
Supplier has not carried out a chemical safety assessment of the mixture. Relevant exposure scenarios for the hazardous substances contained in the mixture have been compiled and included in section 7.

SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

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H302	Harmful if swallowed.
H318	Causes serious eye damage.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Classification codes:

Acute Tox. 4 : Acute toxicity (Oral), Category 4
Aquatic Chronic 2 : Chronic effect to the aquatic environment, Category 2
Eye Dam. 1 : Serious eye damage, Category 1
Repr. 1B : Reproductive toxicant, Category 1B
STOT RE 2 : Specific target organ toxicity following a repeated exposure, Category 2

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

Physical hazards	On basis of test data
Health hazards	Calculation method
Environmental hazards	Calculation method

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

CEN:	European Committee for Standardization.
DMEL:	Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.
DNEL:	Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
EC50:	Half maximal effective concentration.
PPE:	Personal protection equipment.
LC50:	Lethal concentration, 50%.
LD50:	Lethal dose, 50%.

Key literature references and sources for data:
http://eur-lex.europa.eu/homepage.html
http://echa.europa.eu/
Regulation (EU) 2020/878.
Regulation (EC) No 1907/2006.
Regulation (EC) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemical substances and mixtures (REACH).

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.

-End of safety data sheet.-