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

Brandt® AminoPlex

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

1.1 Product identifier.

Product Name: Brandt® AminoPlex
UFI: 68F0-W0VR-U00A-MD49

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

ABONO

Uses advised against:
Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **BRANDT EUROPE S.L.**
Address: Ctra. Carmona - Guadajoz Km 3.1
City: 41410 - Carmona
Province: Sevilla
Telephone: 95 419 62 30
Fax: 95 419 62 40
E-mail: Brandt.Europe@Brandt.co
Web: www.brandteurope.com

1.4 Emergency telephone number: (34) - 91 562 04 20 (Available 24 hours)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.
In accordance with Regulation (EC) No 1272/2008:
Aquatic Chronic 3 : Harmful to aquatic life with long lasting effects.
Flam. Liq. 2 : Highly flammable liquid and vapour.
Repr. 1B : May damage fertility or the unborn child.

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

Signal Word:
Danger
Hazard statements:

H225	Highly flammable liquid and vapour.
H360FD	May damage fertility. May damage the unborn child.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/…
P308+P313	IF exposed or concerned: Get medical advice/attention.
P370+P378	In case of fire: Use... to extinguish.

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Contains:
disodium octaborate tetrahydrate

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.

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
Index No: 005-020-00-3 CAS No: 12280-03-4 EC No: 234-541-0 Registration No: 01-2119490860-33-XXXX	disodium octaborate tetrahydrate	0.3 - 2.5 %	Repr. 1B, H360FD	-
CAS No: 7779-88-6 EC No: 231-943-8 Registration No: 01-2119488498-16-XXXX	zinc nitrate	0.25 - 2.5 %	Acute Tox. 4, H302 - Aquatic Acute 1, H400 (M=1) - Aquatic Chronic 1, H410 (M=1) - Eye Irrit. 2, H319 - Ox. Sol. 2, H272 - STOT SE 3, H335 - STOT SE 3, H336 - Skin Irrit. 2, H315	-
Index No: 007-004-00-1 CAS No: 7697-37-2 EC No: 231-714-2 Registration No: 01-2119487297-23-XXXX	[1] [2] nitric acid	0.1 - 1 %	Acute Tox. 1, H330 - Ox. Liq. 2, H272 - Skin Corr. 1A, H314	Ox. Liq. 3, H272: 65 % ≤ C < 99 % Ox. Liq. 2, H272: C ≥ 99 %

(*) *The complete text of the H phrases is given in section 16 of this Safety Data Sheet.*
[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).

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.
Delayed effects may occur after the exposure to the product.

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

Eye contact.

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Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

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.
Long-term chronic exposure may result in injury to certain organs or tissues.

4.3 Indication of any immediate medical attention and special treatment needed.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Keep the person comfortable. Turn him/her over to the left side and stay there while waiting for medical care.

SECTION 5: FIREFIGHTING MEASURES.

The product is Highly inflammable, it can cause or considerably worsen a fire, the necessary prevention measures should be taken and risks avoided. In case of fire, the following measures are recommended:

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.

During a fire and depending on its magnitude the following may occur:
- Flammable vapors or gases.

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. Product residues and extinguishing media may contaminate the aquatic environment. Follow the instructions given in the emergency or fire evacuation plan or plans if available.

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. During extinction and depending on the magnitude and proximity to the fire, additional protective equipment such as chemical protection gloves, heat-reflecting suits or gas-tight suits may be required.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.
Eliminate possible ignition points and ventilate the area. No smoking. Avoid breathing fumes. For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.
Product dangerous for the environment, in case of large spills or if the product contaminates lakes, rivers, or sewers, inform the responsible authorities according to local legislation. Prevent the contamination of drains, surface or subterranean waters, and the ground.

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.

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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.
The fumes are heavier than air and can spread across the ground. They can form explosive mixtures with air. Prevent the creation of flammable or explosive fume concentrations in the air; prevent fume concentrations above work exposure limits. The product must only be used in areas where all unprotected flames and other ignition points have been eliminated. Electrical equipment has to be protected according to applicable standards.
The product can be electrostatically charged: always use earth grounds when transferring the product. Operators must use anti-static footwear and clothing, and floors must be conductors.
Keep the container tightly closed and isolated from heat sources, sparks, and fire. Do not use tools that can cause sparks. 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).
Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m³
nitric acid	7697-37-2	European Union [1]	**Eight hours**		
			Short term	1	2,6
		United Kingdom [2]	**Eight hours**		
			Short term	1	2,6
		Éire [3]	**Eight hours**		
			Short term	1	2,6
		United States [4] (Cal/OSHA)	**Eight hours**	2	
			Short term	4	
		United States [5] (NIOSH)	**Eight hours**	2	
			Short term	4	
		United States [6] (OSHA)	**Eight hours**	2	5
			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).
[2] According Limit Value (IOELV) list in 2nd Indicative Occupational Exposure adobted by Health and Safety Executive.
[3] According Code of Practice for the Safety, Health and Welfare at Work (Chemicals Agents) Regulations adopted by Health and Safety Authority (HSA).
[4] California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).
[5] National Institute for Occupational Safety and Health. NIOSH Recommendations for occupational safety and health, Compendium of Policy Documents and Statements, January, 1992, DHHS (NIOSH) Publication No. 92-100.

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[6] Occupational Safety and Health Administration, United States Department of Labor. Permissible Exposure limits (PELs), California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).
The product does NOT contain substances with Biological Limit Values.

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:	**ABONO**
Breathing protection:	
If the recommended technical measures are observed, no individual protection equipment is necessary.	
Hand protection:	
If the product is handled correctly, no individual protection equipment is necessary.	
Eye protection:	
If the product is handled correctly, no individual protection equipment is necessary.	
Skin protection:	
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.

9.1 Information on basic physical and chemical properties.
Physical state: Liquid
Colour: BLUE
Odour: Not applicable/Not available due to the nature/properties of the product
Odour threshold: Not applicable/Not available due to the nature/properties of the product
Melting point: Not applicable/Not available due to the nature/properties of the product
Freezing point: Not applicable/Not available due to the nature/properties of the product
Boiling point or initial boiling point and boiling range: Not applicable/Not available due to the nature/properties of the product
Flammability: Not applicable/Not available due to the nature/properties of the product
Lower explosion limit: Not applicable/Not available due to the nature/properties of the product
Upper explosion limit: Not applicable/Not available due to the nature/properties of the product
Flash point: 9 ºC
Auto-ignition temperature: Not applicable/Not available due to the nature/properties of the product
Decomposition temperature: Not applicable/Not available due to the nature/properties of the product
pH: 5,8 (1%)
Kinematic viscosity: Not applicable/Not available due to the nature/properties of the product
Solubility: Not applicable/Not available due to the nature/properties of the product
Hydrosolubility: Not applicable/Not available due to the nature/properties of the product
Liposolubility: Not applicable/Not available due to the nature/properties of the product
Partition coefficient n-octanol/water (log value): Not applicable/Not available due to the nature/properties of the product
Vapour pressure: Not applicable/Not available due to the nature/properties of the product
Absolute density: Not applicable/Not available due to the nature/properties of the product
Relative density: 1,24
Relative vapour density: Not applicable/Not available due to the nature/properties of the product
Particle characteristics: Not applicable/Not available due to the nature/properties of the product

9.2 Other information
Information with regard to physical hazard classes
Flammable liquids:
Sustained combustibility: Yes.

SECTION 10: STABILITY AND REACTIVITY.

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

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10.2 Chemical stability.
Unstable in contact with:
- Bases.

10.3 Possibility of hazardous reactions.
Neutralization can occur on contact with bases.

10.4 Conditions to avoid.
- Avoid contact with bases.

10.5 Incompatible materials.
Avoid the following materials:
- Bases.

10.6 Hazardous decomposition products.
Depending on conditions of use, can be generated the following products:
- Corrosive vapors or gases.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on hazard classes as defined in Regulation (EC) Nº 1272/2008.

Toxicological information about the substances present in the composition.

Name	Acute toxicity			
	Type	Test	Kind	Value
zinc nitrate CAS No: 7779-88-6 EC No: 231-943-8	Oral	LD50	Rat	1190 mg/kg bw [1] [1] Unknown
	Dermal			
	Inhalation			

a) acute toxicity;
Not conclusive data for classification.

b) skin corrosion/irritation;
Based on available data, the classification criteria are not met.

c) serious eye damage/irritation;
Based on available data, the classification criteria are not met.

d) respiratory or skin sensitisation;
Not conclusive data for classification.

e) germ cell mutagenicity;
Not conclusive data for classification.

f) carcinogenicity;
Not conclusive data for classification.

g) reproductive toxicity;
Product classified:
Reproductive toxicant, Category 1B: May damage fertility or the unborn child.

h) STOT-single exposure;
Based on available data, the classification criteria are not met.

i) STOT-repeated exposure;
Not conclusive data for classification.

j) aspiration hazard;
Not conclusive data for classification.

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11.2 Information on other hazards.
Endocrine disrupting properties
This product does not contain components with endocrine-disrupting properties with effects on human health.
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
zinc nitrate	Fish	LC50	Fish	12,4 mg/l (96 h) [1] [1] Bengtsson, B.E. 1974. The Effects of Zinc on the Mortality and Reproduction of the Minnow, Phoxinus phoxinus L. Arch.Environ.Contam.Toxicol. 2(4):342-355. "Taylor, D., B.G. Maddock, and G. Mance 1985. The Acute Toxicity of Nine ""Grey List"" Metals (Arsenic, Boron, Chromium, Copper, Lead, Nickel, Tin, Vanadium and Zinc) to Two Marine Fish Species:. Aquat.Toxicol. 7(3):135-144"
	Aquatic invertebrates			
CAS No: 7779-88-6 EC No: 231-943-8	Aquatic plants			

12.2 Persistence and degradability.
No information is available regarding the biodegradability of the substances present.
No information is available on the degradability of the substances present.
No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.
No information is available regarding the bioaccumulation of the substances present.

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.
No information is available about other adverse effects for the environment.

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.
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.

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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.
Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

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

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): N/A
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.

Information on Annex I and Annex II of Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 20 2019 on the marketing and use of explosives precursors:

CAS No	Name	Annex
7697-37-2	nitric acid ... %	I
7697-37-2	nitric acid ... %	I

Annex I: Restricted explosives precursor.
Annex II: Reportable explosives precursors.

15.2 Chemical safety assessment.
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

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

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.

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H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360FD	May damage fertility. May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Classification codes:

Acute Tox. 1 : Acute toxicity (Inhalation), Category 1
Acute Tox. 4 : Acute toxicity (Oral), Category 4
Aquatic Acute 1 : Acute toxicity to the aquatic environment, Category 1
Aquatic Chronic 1 : Chronic effect to the aquatic environment, Category 1
Aquatic Chronic 3 : Chronic effect to the aquatic environment, Category 3
Eye Irrit. 2 : Eye irritation, Category 2
Flam. Liq. 2 : Flammable liquid, Category 2
Ox. Liq. 2 : Oxidising liquid, Category 2
Ox. Sol. 2 : Oxidising solid, Category 2
Repr. 1B : Reproductive toxicant, Category 1B
STOT SE 3 : Specific target organ toxicity following a single exposure, Category 3
Skin Corr. 1A : Skin Corrosive, Category 1A
Skin Irrit. 2 : Skin irritant, Category 2

Changes regarding to the previous version:

- Change in the hazard classification (SECTION 2.1).
- Removal of precautionary statements/hazard statements/pictograms/signal word (SECTION 2.2).
- Addition of precautionary statements/hazard statements/pictograms/signal word (SECTION 2.2).
- Changes in the composition of the product (SECTION 3.2).
- Modification in the firefighting measures (SECTION 5.3).
- Modifications in the accidental release measures (SECTION 6.1).
- Modifications in the handling and storage precautions (SECTION 7.1).
- Modifications in the handling and storage precautions (SECTION 7.2).
- Modification in the values of the physical and chemical properties (SECTION 9).
- Addition of ecotoxicity values (SECTION 11.1).
- Change in the hazard classification (SECTION 11.1).
- Addition of ecological information values (SECTION 12.1).
- Addition of abbreviations and acronyms (SECTION 16).

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.
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.

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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.-