

# FloraGro

Date : 01 january 2008

Version No. 2

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

### Product identifier

**1.1 Product name:** FLORAGRO

**1.2 Relevant identified uses of the substance or mixture and uses advised against** **Relevant identified uses of the substance or mixture:**  
FloraGro is a mixture of mineral salts formulated and mixed in proportions that ensure optimal plant nutrition.

**Uses advised against:**

Any use not specified in this section or in section 7.3

Use Descriptor System (REACH): No data available (not applicable).

**1.3 Details of the supplier of the safety data sheet**

Supplier identification Général Hydroponics Europe  
Address 4, boulevard du Biopole 32500 FLEURANCE  
Phone number +33 (0)5 62 06 08 30  
E-mail address info@eurohydro.com

**1.4 Emergency telephone number**

Medical services/  
emergency services **15**

Fire and rescue services **18**

Police **17**

**1.4** EU Emergency call line **112**

Toxicological Information Centre **01 45 41 59 59**

ORFILA (INRS)  
Toxicological Information Centre South West **05 61 77 74 47**

## 2 SECTION 2 : HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Reg. 1272/2008/CLP In accordance with Regulation No. 1272/2008 (CLP), the product is not considered dangerous.

Additional information :

Hazards for humans None  
Environmental hazards None  
Physico-chemical hazards None  
Other hazards None

#### Labelling elements

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

**2.2** Hazard pictograms None  
Signal word None  
Hazardous substances to be indicated on the label None  
Hazard statements H: None  
Precautionary statements P: Phrases P  
P102 Keep out of reach of children

**2.3 Other hazards**  
Reg. 1272/2008/CLP None

### 3 SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances** Non applicable

**3.2 Mixtures Name** FLORAGRO  
A natural mixture of minerals not containing substances classified as hazardous to health or the environment in accordance with the instructions of Directives 67/548/EEC and/or Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adaptations).  
Composition: FloraGro is a mixture of mineral salts, formulated and mixed in proportions that ensure optimal plant nutrition. The exact nature of the salts and their proportions are a trade secret. However, they are derived from: nitrates, and inorganic minerals in aqueous solution.

Chemical name	Concentration (%)	N°CAS
Ammonium nitrate	3 - 5	6484-52-2
Potassium Nitrate	0-1	7757-79-1

### 4 SECTION 4 : FIRST AID MEASURES

No known incidents of damage to persons who have used this product.

However, in case of doubt or if symptoms persist, seek medical attention. Do not give anything by mouth to an unconscious person. The general measures described below should be adopted:

#### 4.1 Description of first aid measures

Following eye contact Do not allow the victim to rub their eyes or keep their eyes closed. Immediately flush eyes, including under the eyelids, with plenty of clean, clear water for at least 15 minutes. Check if the victim is wearing contact lenses and if so, remove them. Consult a doctor immediately.

Following skin contact Rinse the irritated area thoroughly with water with soap for at least 15 minutes. Remove contaminated clothing.

Following ingestion	Do not induce vomiting. Rinse the mouth with water. If a person has swallowed this product and is conscious, give small amounts of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a doctor if adverse health effects persist or worsen.
Following inhalation	If inhaled, move to fresh air. In case of breathing difficulties, consult a doctor as soon as possible.
Self-protection of the first aider	No action should be taken that involves an individual risk or in the absence of appropriate training. If it is suspected that fumes are present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It can be dangerous for the person assisting a victim to practice mouth-to-mouth. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Other information	For further details of first aid administration, including but not limited to more serious health effects, the doctor may consult the Toxicological Information Centre, hotline: see section 1.4
<b>4.2</b>	<p><b>Most important symptoms and effects, both acute and delayed</b></p> <p><b>Potential acute health effects:</b> No known effect / no data are available.</p> <p><b>Signs/symptoms of overexposure:</b> No specific data.</p>
<b>4.3</b>	<p><b>Indication of any immediate medical attention and special treatment needed</b></p> <p>Note to the attending physician Symptomatic treatment required. No special treatment.</p> <p>In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.</p>

## 5 SECTION 5 : FIREFIGHTING MEASURES

<b>5.1</b>	<p><b>Extinguishing media</b></p> <p>The product is not flammable. Fire hazard low due to the flammability characteristics of the product under normal storage, handling and use conditions.</p> <p>Suitable extinguishing media: In the event of continued combustion, caused by improper handling, storage or use, the following extinguishing media may be used: carbon dioxide (CO<sub>2</sub>), foam, chemical powders, and in the event of a widespread fire, also water spray.</p> <p>Inappropriate extinguishing media: In case of fire, do not use: Water jet</p>
<b>5.2</b>	<p><b>Special hazards arising from the substance or mixture</b></p> <p>Hazards due to the substance or mixture: Given its flammability characteristics, the product does not present a specific risk of fire or explosion under normal storage, handling and use conditions.</p> <p>Risk related to thermal decomposition products: A fire in the surrounding area will often produce thick black smoke. Exposure to compositional products may pose health risks. Do not breathe dust, vapours or fumes released by the combustion of the products.</p> <p>Decomposition products may include the following materials: nitrogen oxides sulphur oxides phosphorus oxides metal oxide / metal oxides</p>

This product is toxic to aquatic life. Fire water contaminated with this product must be contained and prevented from being discharged into a watercourse or sewer.

**Advice for firefighters** Protective actions to be taken when fighting fires

None

Appropriate protective equipment

5.3

The product is not combustible. In the event of a fire in the surrounding area, appropriate extinguishing media and protective equipment may be used for the other materials present (full protective clothing and personal respiratory equipment), in accordance with EN469 for a basic level of protection against chemical incidents. Have a minimum of emergency facilities or intervention elements (fire blankets, medicine kit, etc.) in accordance with Directive 89/654/EC.

**Other information**

Additional provisions:

5.4

Respond in accordance with the Internal Emergency Plan and the Fact Sheets on Accident and Other Emergency Response. Remove all sources of ignition. In case of fire, refrigerate containers and storage tanks for products that may ignite and explode as a result of high temperatures. Avoid spilling products used to extinguish the fire in the aquatic environment.

6 SECTION 6 : ACCIDENTAL RELEASE MESURES

**6.1 Personal precautions, protective equipment and emergency procedures**

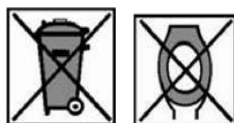
For non-emergency personnel

No action should be taken that involves an individual risk or in the absence of appropriate training. Evacuate the area. Prevent access to persons not required and not wearing protective clothing. DO NOT touch or walk in spilled material. Ensure adequate ventilation. Wear protective equipment.

For emergency responders

If specific clothing is required to handle the spill, refer to Section 8 for appropriate and inappropriate materials. See also the information contained in "For personnel other than response personnel"

**Environmental precautions**



6.2

Avoid contamination of soil, sewers, surface water and groundwater. If this happens, inform the competent authorities.

**Methods and material for containment and cleaning up**

6.3

For containment:

Sewer coverage

For cleaning up:

Collect the spilled product by mechanical means and remove any residues by water jets. Provide adequate ventilation at the location of the spill. The disposal of the contaminated material must be carried out in accordance with the provisions of point 13.

**Reference to other sections**

6.4

Collect the remains in an identified container: see point 13 for disposal.

Personal protective equipment: see section 8

Withdrawal considerations: see section 13.

See section 1 for emergency contact information.

## 7 SECTION 7 : HANDLING AND STORAGE

	<b>Precautions for safe handling</b>	Avoid the formation of suspended particles and the dispersion of the product in the air. Use adequate ventilation in areas where suspended particles develop. Keep away from flames and sparks. Do not smoke. Keep away from heat sources and other sources of fire.
7.1		<b>Advice on professional hygiene in general:</b> It is prohibited to eat, drink or smoke in areas where this product is handled, stored or used. It is recommended that staff wash their hands and face before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering a food court. See also section 8 for more information on hygiene measures.
	<b>Conditions for safe storage, including any incompatibilities</b>	Store in accordance with local regulations. Store in the original container away from direct sunlight in a dry, cool and well-ventilated place away from incompatible materials (see section 10). Keep under lock and key. Keep container tightly closed when not in use. Containers that have been opened must be carefully closed again and kept in an upright position to prevent leaks. Do not store in unlabelled containers. Do not store in the presence of food products. Use an appropriate container to avoid contamination of the surrounding environment. Surround storage facilities with containment dykes to prevent soil and water pollution in the event of a spill.
7.2		
	<b>Specific end use(s)</b>	No specific end uses. Good practices: keep in closed containers. Close containers before and after each use to avoid sources of moisture or heat. Store in areas with waterproof pavement.
7.3		

## 8 SECTION 8 : EXHIBITION CONTROLS/INDIVIDUAL PROTECTION

8.1	<b>Control parameters</b>	Not applicable
		Use good industrial hygiene practices.
8.2	<b>Exposure controls</b>	
	Appropriate engineering controls	No particular control. Good general ventilation should be sufficient to control workers' exposure to airborne contaminants.
	Individual protection measures, such as personal protective equipment	No personal protection required. In general, use individual protections placed on the market in accordance with the provisions of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016. Personal protective equipment must be adapted to the risk, kept clean and properly maintained in accordance with the provisions of the Labour Code.
	Eye/face protection	It is necessary to wear protective glasses in accordance with NF EN166 before handling any chemical products.
	Skin protection	Hands: Wear suitable protective gloves in case of prolonged or repeated contact with the product. Use suitable chemical-resistant protective gloves in accordance with NF EN374. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
	Respiratory protection	Ensure adequate ventilation, especially in enclosed areas.
	Body protection	Wear appropriate protective clothing. After contact with the product, all parts of the body that have been in contact with the product must be washed.

Environmental exposure controls No data available.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

## 9 SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Physical state: All Flora Gro compounds are in aqueous solution (liquid) Color: Green
Odour	No odor
pH	4.2
Melting point	Not applicable
Freezing point	-1°C (30.2°F)
Initial boiling point and boiling range	101°C (213.8°F)
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Non inflammable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	Not determined
Vapour density	Not determined
Relative density	1.108
Solubility(ies) 20°C	Entirely Soluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
Viscosity	Not determined
Explosive properties	None
Oxidising properties	None
Refraction index	Not determined
Rotary power	Not determined

### 9.2 Other information

No other information

## 10 SECTION 10 : STABILITY AND REACTIVITY

10.1	<b>Reactivity</b>	No specific reactivity test data are available for this product or its components in normal conditions of use.
10.2	<b>Chemical stability</b>	The product is stable at room temperature in closed packages and under normal storage and handling conditions. No hazardous polymerization can be produced by any of these components
10.3	<b>Possibility of hazardous reactions</b>	No risk of dangerous reactions under normal use and storage conditions.
10.4	<b>Conditions to avoid</b>	No special conditions to avoid. Comply with usual precautionary practices regarding chemicals.

<b>10.5</b>	<b>Incompatible materials</b>	FloraGro contains elements that are powerful oxidants that can react with strong bases to release ammonium. It can also react with powerful reducers.
<b>10.6</b>	<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 SECTION 11 : TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

a) acute toxicity;

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium nitrate	LD50 Oral	Rat	2217 mg/kg	No applicable
Potassium nitrate	LD50 Oral	Rat	2.000-5.000 mg/ kg	
	LD50 Skin	Rat	> 5.000 mg/kg	

Conclusion / Summary: No known significant effects or critical hazards.

(b) Skin corrosion / skin irritation No known significant effects or critical hazards.

(c) serious eye damage/irritation;

(d) respiratory or skin sensitisation;

(e) germ cell mutagenicity;

(f) carcinogenicity;

(g) reproductive toxicity;

(h) STOT-single exposure;

(i) STOT-repeated exposure;

(j) aspiration hazard

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin exposure: Slight irritation. No known significant effects or critical hazards.

Eye exposure: Slight irritation. No known significant effects or critical hazards.

Health effects are considered unlikely if the product is used as recommended

Delayed and immediate effects as well as chronic effects from short- and long-term exposure

Interactive effects

No data available

Absence of specific data

No data available

Mixtures

No data available

Mixture versus substance information

Mixture not containing substances subject to registration.

No known adverse effects or symptoms resulting from exposure to the mixture or its components.

Other information

Comply with good industrial hygiene practices

## 12 SECTION 12 : ECOLOGICAL INFORMATION

**12.1 Toxicity** No known significant effects or critical hazards.

Product/ingredient name	Result	Species	Exposure
Ammonium nitrate	Chronic NOEC 6 to 12 mg/L Fresh water	Crustaceans - Cladocera Crustaces	21 days
Potassium nitrate	Acute LC50 1.378 mg/L - Fresh water	Daphnia - Daphnia magna - Young	48h

Acute LC50 490 mg/L Fresh water	Marine water Algae	240h
Acute LC50 1.700 mg/L/L Fresh water	Marine water Algae	

- 12.2 **Persistence and degradability** No data available to date to the best of our knowledge
- 12.3 **Bioaccumulative potential** No data available to date to the best of our knowledge
- 12.4 **Mobility in soil** No data available to date to the best of our knowledge. Waste generation should be avoided or minimized as much as possible, and the product should not be discharged into sewers or waterways.
- 12.5 **Results of PBT and vPvB assessment** No data available to date to the best of our knowledge
- 12.6 **Other adverse effects** No known significant effects or critical hazards.

**13 SECTION 13 : DISPOSAL CONSIDERATIONS**

- Waste treatment methods**

Do not discharge into my sewers or waterways.

Waste: Waste management is carried out without endangering human health and without harming the environment, including without creating a risk to water, air, soil, fauna and flora. Recycle or dispose of in accordance with current legislation, preferably by an approved collector or company.
- 13.1**

Disposal of the product/packaging: it is prohibited to discharge it into sewers or waterways. Residues and empty containers must be handled and disposed of in accordance with the relevant local/national legislation in force.

Follow the provisions of Directive 2008/98/EC on waste management.

FloraGro can be disposed of in the same way as any industrial fertilizer.

Recover the product as much as possible. Follow local legislation.
- Waste codes / waste designations according to LoW:

Not applicable

**14 SECTION 14 : TRANSPORT INFORMATION**

Non-hazardous transport. In the event of an accident and product spillage, proceed as described in point 6

- 14.1 **UN number** Not regulated. Non-hazardous transport
- 14.2 **UN proper shipping name** -
- 14.3 **Transport hazard class(es)** -
- ADR** Not regulated. Non-hazardous transport

**IMDG**

**OACI/IATA**
- 14.4 **Packing group** -
- 14.5 **Environmental hazards** No
- 14.6 **Special precautions for user** Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage



14.7 **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not available

## 15 SECTION 15 : REGULATORY INFORMATION

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

15.1

Reg. 1272/2008/CE The product does not contain substances that can be classified as carcinogenic. 1 or 2 according to Reg.1272/2008/EC and subsequent updates.

Reg. 830/2015/CE (REACH) Not applicable

Special hazards To our knowledge, no other national or governmental regulations apply.

15.2

**Chemical safety assessment** Evaluation not carried out

## 16 SECTION 16 : OTHER INFORMATION

### Abbreviations and acronyms:

ETA = Acute Toxicity Estimation  
CLP = Regulation 1272/2008/EC on classification, labelling and packaging of substances and mixtures  
DNEL = Derived no-effect dose  
DMEL = Derived no-effect dose  
EUH = Specific hazard statement CLP  
CPSE = Predicted no-effect concentration  
RRN = REACH registration number  
PTB = Persistent, Toxic and Bioaccumulative  
tPtB = Very persistent and very bioaccumulative  
bw = Body mass

16.1

### Key literature references and sources for data

Regulation (EC) 1907/2006 of the European Parliament (REACH)  
Regulation (EC) 1272/2008 of the European Parliament (CLP)  
Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)  
Regulation (EC) 453/2010 of the European Parliament Regulation (EC) 286/2011 of the European Parliament (II Atp. CLP)

16.2

The Merck index. Ed. 10 Handling and chemical safety  
Niosh - Register of toxic effects of chemical substances  
INRS - Toxicological Data Sheet  
Patty - Industrial hygiene and toxicology  
N.I. Sax - Dangerous properties of Industrial Materials - 7 Ed., 1989  
ECHA website

16.3

### Indication of changes:

Date of revision: 20/06/2019  
Previous version date: 25/06/2018  
Version: 3

### Note

Amendment section 12.

16.4

The indicated mixture does not require an MSDS according to REACH requirements. Form prepared for information purposes.

This safety data sheet complies with the requirements established by Regulation 830/2015/EU. It does not in any way exempt the user from knowing and applying all the documents that govern his activity. The user will take under his responsibility the precautions related to the

specific use of the product. All the regulatory requirements mentioned are intended simply to assist the recipient in fulfilling their responsibilities. This list should not be considered exhaustive. This sheet supplements the technical operating instructions but does not replace them. The information contained herein is based on our knowledge of the product on the date indicated. They are given in good faith. In addition, the user's attention is drawn to the possible risks involved when a product is used for purposes other than those for which it was created.

The addressee must ensure that he is not responsible for anything else according to texts other than those mentioned.