

**SAFETY DATA SHEET**

*In compliance with EC Regulation No. 1907/2006*

*Updated on : 06/07/2015 – Version : 1.0*

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION****1.1. Product identification**

**AGROCEAN LAMINAVEG**

**1.2. Relevant identified uses of the substance or mixture**

Algae based fertilizer

**1.3 Data relative to supplier of Safety data sheet**

AGRIMER

Prat Menan - BP 29

29880 PLOUGUERNEAU - FRANCE

Tel : (33) 02 98 04 54 11

Fax : (33) 02 98 04 55 15

**1.4. Emergency phone numbers :**

Orfilla France (INRS) : + 33 (0)1 45 42 59 59

Centre Anti-Poison (Rennes) : + 33 (0)2 99 59 22 22

**SECTION 2 – HAZARD IDENTIFICATION****2.1. Classification of substance or mixture**

According to EC Directive 67/548/EC or 1999/45/EC :

none

According to EC Regulation 1272/2008 :

none

**2.2. Labeling elements**

Labeling according to EC Directive 1999/45/EC

none

Labeling according to CLP directive

none

**Precautionary statements :**

Wear gloves and protective eyewear.

Do not eat, smoke, or drink while handling the product. Wash hands after handling product.

P102 : Keep out of reach of children

P103 : Read label before use

P501 : Dispose of contents / container in accordance with local/regional/ national/ international regulations

**2.3. Other hazards :**

No further relevant information

## SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

## 3.2. Mixtures

Components with hazard statements :

Component	Classification according to EC Regulation 1272/2008	Classification according to EC Directive 67/548/EEC or EC Directive 1999/45/EC	Composition	Classification of mixture
Sorbic acid CAS : 110-44-1	Skin irrit 2 – H315 Eye irrit 2, H319	Xi, R36/37/38	< 1 %	no
Manganese sulfate N°CE : 232-089-9 N°CAS : 10034-96-5 REACH : 2119456624-35-xxxx	H318 H373	Xn R18/20/22 R51/53	<3.5%	no
Heptahydrated zinc sulfate N°CE : 231-793-3 N°CAS : 7446-20-0	H302 acute toxicity category 4 H318 H400 H410	Xn R22 R41 R50/53	<4.5 %	No

Other components :

Xanthane gum

*Laminaria digitata* extract

## SECTION 4 – FIRST AID MEASURES

## 4.1. Description of first aid measures

In case of :

- Inhalation: not specifically concerned (aqueous liquid), provide fresh air.
- Eyes: rinse immediately and abundantly with water for 15 minutes, and consult an ophtalmologist.
- Skin: remove soiled clothes, rinse abundantly for 15 minutes. Consult a doctor in case of itching and redness.
- Ingestion: rinse mouth with water and drink large amounts of water. Consult a doctor immediately. Do not vomit.

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

Depending on the type of exposition: redness, stinging, itching, nausea, vomiting, diarrhea...

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

No further relevant information available.

## SECTION 5 – FIRE FIGHTING MEASURES

## 5.1. Extinguishing media

**Suitable extinguishing agents:** all types of extinguishing agents are suitable (CO<sub>2</sub>, extinguishing powder, water spray, alcohol resistant foam...)

**Specific hazards:** possible emission of toxic fumes. Collect contaminated fire extinguishing water separately and eliminate according to applicable regulation

**Protective equipment :** fire-fighting masks

## 5.2. Specific hazards arising from the substance or mixture

No further information available, emissions resulting from combustion may contain nitrogen oxides and metal oxides

## 5.3. Advice for firefighters

Do not enter or stay in hazardous area without protective clothing and autonomous breathing equipment

**SECTION 6 – ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with eyes and skin. Use protective gloves, and protective eyewear. Do not breathe gases, fumes, vapors or aerosols. Use a respiratory mask, gloves, protective eyewear.

**6.2. Environmental precautions**

Contain spills. Do not reject directly in sewer or in the natural environment (surface or groundwater). Inform authorities of any spills.

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

Do not dilute.

Absorb with liquid binding material. Dispose contaminated material as waste according to item 13.

Do not refill original packaging.

**6.4. Reference to other sections**

See section 8 for information on personal protective equipment

See section 13 for disposal information.

**SECTION 7 – HANDLING AND STORAGE****7.1. Precautions for safe handling**

Handling : store in well closed container. Use outdoors or in well ventilated workshop. do not breathe gases, fumes, vapors or aerosols. Use respiratory mask, gloves and protective eyewear.

Avoid spilling and accidental projections. Avoid contact with skin and eyes. Do not breathe vapors.

Do not eat, smoke or drink in work area. Wash hands before breaks and after using product.

**7.2. Conditions for safe storage, including incompatibilities**

Storage: in closed container, away from heat or freezing temperatures. Do not store close to food products or drinks, including animal feed.

Container: 1000 liter tank, 5 or 10 liter tank. Do not transfer to other containers. Keep product in original container, well closed and with original labeling.

**7.3. Specific end uses**

No further relevant information available

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1. Control parameters**

Advice for the workplace : work outdoors or insure a good ventilation/exhaustion at the workplace

Limit values for monitoring at the workplace : no studies have been carried out on the mixture

**Data relative to components :**

Manganese sulfate (< 3.5 %) :

Workers, long term systemic effects, contact with skin : 0.00414 mg/kg bw/day

Workers, long term systemic effects, inhalation : 0.2 mg/m<sup>3</sup>

Consumers, long term systemic effects, contact with skin : 0.0021 mg/kg bw/day

Consumers, long term systemic effects, inhalation : 0.043 mg/m<sup>3</sup>

**PNEC**

Sea water : 0.0004 mg/l

Fresh water : 0.0128 mg/l

Sediments (fresh water) : 0.0114 mg/kg dry weight

Sediments (sea water) : 0.00114 mg/kg dry weight

Waster water treatment plant : 56 mg/l

Ground : 25.1 mg/kg dry weight

**8.2. Exposure controls**

Monitoring means : occupational health services

**Protective equipment**

**Breathing equipment :** when ventilation is insufficient, P2 filter against dust and aerosols

**Protection of skin:** gloves resistant against chemicals. Protective clothing (plastic sleeve covers, apron, gloves with sleeve covers, single use suits...) depending on use

**Protection of eyes :** protective eyewear

**Specific hygiene measures:** wash hands after handling product. Do not eat, smoke or drink during use of product.

**Protection of the environment:** Empty rinsing water of the original container into the spraying tank of machine for fertilizing.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

**Appearance :** Green to greenish brown liquid

**Odor :** typical

**Density :** 1.085 – 1.105

**pH :** 4.5 – 5.5

**Solubility :** fully miscible

**Melting point :** Not determined

**Boiling point:** Not determined

**Decomposition temperature :** Not determined

**Vapor pressure:** not applicable.

**Danger of explosion :** not applicable

**Combustive properties :** not applicable

**9.2. Other information**

No further relevant information available

**SECTEUR 10 – STABILITY AND REACTIVITY****10.1 Reactivity**

No available data (no particular risks expected)

**10.2 Chemical stability**

The product is stable in the normal conditions of use.

The product may change colors in time, without alteration of its properties.

**10.3 Possibility of hazardous reactions**

No available data on the mixture.

**10.4 Conditions to avoid**

Storage at temperatures above 40 °C and below – 10°C.

**10.5 Incompatible materials**

May react with reducers, organic matter and bases

**10.6 Hazardous decomposition products**

No dangerous decomposition products known. In case of fire, see section 5.

**SECTION 11 – TOXICOLOGICAL INFORMATION****11.1 Information relative to toxicological effects**

No tests carried out on mixture

**Acute toxicity :** no data on mixture

Data relative to components

Sorbic acid (< 1 %) :

DL50 oral, rat : 7360 mg/kg

DL50 skin, rat : 2000 mg/kg

Heptahydrated zinc sulfate (< 4.5 %) :

May irritate respiratory system

Manganese sulfate (< 3.5 %) :

DL50 oral : 2150 mg/kg (rat)

**Irritation /corrosion :** no data on mixture

Data relative to components

Heptahydrated zinc sulfate (< 4.5 %) : irritating for skin

Manganese sulfate (< 3.5 %) : not irritating for skin

**Sensitization :** no data on mixture

Data relative to components

Heptahydrated zinc sulfate (< 4.5 %) : non sensitizing

Manganese sulfate (< 3.5 %) : no sensitizing effects known

**Carcenogenicity :** no data on mixture

Data relative to components

Manganese sulfate (< 3.5 %) : Does not contain any components known to be cancerous

**Mutagenicity :** no data on mixture

Data relative to components

Manganese sulfate (< 3.5 %) : Does not contain any components known to be mutagenous

**Chronical toxicity :** no data on mixture

## SECTION 12 – ECOLOGICAL INFORMATION

### 12.1 Toxicity

No studies have been carried out for the mixture.

Components :

Sorbic acid (< 1 %) :

CL50, fish, 96 h : 1250 mg/l

CE50, daphnia, 48 h : 353 mg/l

CE50, algae, 72 h : 24 mg/l

Heptahydrated zinc sulfate (< 4.5 %) :

Poisson, pimephales promelas, 96 h, CL50 : 17 mg/l

Aquatic invertebrae, daphnia magna, 48 h, CE50 : 1.86 mg/l

Algae, Scendesmus quadricauda, 120 h, CE50 : 0.52 mg/l

Bacteria, Photobacterium phosphoreum, 0.5 h, CE50 : 22.75 mg/l

Manganese sulfate (< 3.5 %) :

Fish, 96 h, CL50 : 30 mg/l

Fish, 96 h, OCDE 203, CL50 : 14.5 mg/l

### 12.2 Persistence and degradability

Easily biodegradable.

### 12.3 Bioaccumulative potential

No bioaccumulation

### 12.4 Mobility in soil

No studies on mixture

**12.5 Results of PBT and vPvB assessments**

No studies have been carried out on mixture

**12.6 Other adverse effects**

Excessive use may lead to effects on the environment: eutrophization of surface waters and contamination of groundwater.

**SECTION 13 – DISPOSAL CONSIDERATIONS****13.1 Waste treatment method**

Residues: Must be disposed according to applicable regulations.

Must not be disposed in sewage system.

Destruction of packaging: Eliminate cardboard, pallet and containers according to applicable regulation.

Recommended cleaning agent: Empty rinsing water of the original container into the spraying tank of machine for fertilizing.

**SECTION 14 - TRANSPORT INFORMATION**

**14.1. UN Number :** not regulated

**14.2 UN shipping name :** not regulated

**14.3 Transport hazard class :**

Road (ADR 2011) : not regulated

Maritime (IDMG 2011) : not regulated

**14.4 Packing group :** not regulated

**14.5 Environmental hazards :** not regulated

**14.6 Specific precautions by the user :** no further information available

**14.7 Transport of bulk according to annex II of MARPOL 73/78 convention and IBC Code :** not applicable

**SECTION 15 – REGULATORY INFORMATION****15.1 Safety, health and environmental regulations specific for the substance or mixture :**

Hazard pictograms : Irritant

Hazard statements :

According to EC Directive 67/548/EC or 1999/45/EC :

none

According to EC Regulation 1272/2008 :

none

**15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out for the mixture. No exposition scenarios are available.

**SECTION 16 – OTHER INFORMATIONS**

The content and the format of the Material Safety Data Sheet comply with EC regulation 1907/2006 and regulation 453/2010.

Details of revision : new format

Risk phrases in section 2 :

According to EC Directive 67/548/EC or EC Directive 1999/45/EC :

none

According to EC Regulation 1272/2008 :

Risk phrases in section 3 :

According to EC Directive 67/548/EC or 1999/45/EC :

Xn Harmful

R36/37/38 Irritating to eyes, respiratory system and skin

R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed

R22 Harmful if swallowed

R41 Risk of serious damage to eyes

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

According to EC Regulation 1272/2008 :

H302 : Harmful if swallowed

H315 : Causes skin irritation

H318 : Causes serious eye damage

H319 : Causes serious eye irritation

H335 : May cause respiratory irritation

H400 : Very toxic to aquatic life

H410 : very toxic to aquatic life with long lasting effects

*This safety data sheet complements the technical instructions of use. The information is based on the current knowledge relative to the product on the date of the update of the document. The manufacturer will not be held responsible for consequences of the use of the product for uses other than the relevant identified use. This document shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*