

**SAFETY DATA SHEET**

In compliance with EC Regulation No. 1907/2006

Updated on : 17/03/2014 – Version : 2.0

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

AGROCEAN Fe

Algae and iron complex of EDTA solution

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 EC Directive 1999/45/EC: none

According to EC Regulation 1272/2008 : none

2.2. Labeling elements

Labeling according to EC Directive 67/548/EC or EC Directive 1999/45/EC

Hazard pictogram : none

Labeling according to EC Regulation 1272/2008 :

Hazard pictogram : 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
Inorganic chloride compound		Xn, R22, R36	<9 % of Synthron EDTA Fe	Not classified according to conventional calculation method

Other components :

Iron complex of EDTA in aqueous solution
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 ophthalmologist.
- 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 (CO₂, 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

Aqueous solutions in contact with copper and aluminum emit hydrogen. By pyrolysis: CO, CO₂, NO_x.

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 gloves, and 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 : use a chemical protection mask, rubber or latex gloves, 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. Stacking of pallets must be limited to 2 pallets.

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

Components with limit values to be monitored in the workplace :

Inorganic chloride compound (<9 %):

TLV-TWA : 25 ppm – 18 mg/m³ (NH₃)

TLV – C : 50 ppm – 36 mg/m³ (NH₃)

TLV-TWA : 10 mg/m³ (fume) (VLEP – INRS (FR))

8.2. Exposure controls

Monitoring means : occupational health services

Protective equipment

Breathing equipment : not needed for normal use

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 : brown/red liquid

Odor : typical

Density : 1.29-1.31

pH : 7.5-8.7

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

Contact with copper and aluminum will emit hydrogen

10.4 Conditions to avoid

Storage at temperatures above 25 °C and below 5°C. Avoid contamination by metals, dust, organic substances. Store away from heat, sparks and flames. Store away from direct sunlight.

10.5 Incompatible materials

Strong oxidizing agents, copper and aluminum

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 : not classified

Data relative to components:

Iron complex of EDTA in aqueous solution :

Acute toxicity : ingestion : LD50 > 4000 mg/kg/rat

Iron complex of ethylenediaminetetracetic acid :

Acute toxicity : ingestion DL50 : 2200 mg/kg/rat

Inorganic chloride compound (<9 %) :

Acute toxicity : ingestion DL50 : 1650 mg/kg/rat; 1300 mg/kg/mouse

Harmful if swallowed

Irritation /corrosion : mixture not classified

Iron complex of EDTA in aqueous solution :

Local effects on skin : slightly irritating to skin

On eyes : moderately irritating on eyes

Iron complex of ethylenediaminetetracetic acid :

Local effects : on skin : not irritating ; On eyes : not irritating

Inorganic chloride compound (<9 %):

Local effects : on skin : slightly irritating : 500 mg/24/rabbit

On eyes : irritating (100 mg/rabbit)

Inhalation : in the form of dust, the product can cause the irritation of the respiratory tracts

Skin contact: a repeated or prolonged exposure can cause a cutaneous irritation.

Sensitization : mixture not classified

Carcenogenicity : no available data for mixture

Mutagenicity : no data available for mixture

Chronical toxicity : no available data for mixture

Iron complex of EDTA in aqueous solution:

Long term toxicity : chronic toxicity : may cause irritations in case of prolonged contact with skin

Inorganic chloride compound (<9 %):

Long term toxicity : chronic toxicity

Skin contact: a repeated or prolonged exposure can cause a cutaneous irritation.

SECTION 12 – ECOLOGICAL INFORMATION**12.1 Toxicity**

No studies have been carried out for the mixture.

Acute toxicity :

Data relative to components :

Iron complex of EDTA in aqueous solution:

LC50 fish > 100 mg/l/96h

Iron complex of ethylenediaminetetracetic acid :

LC50 fish > 100 mg/l/96h (*Oncorhynchus mykiss*)

EC50 daphnia > 100 mg/l/48h (*Daphnia magna*)

IC50 algae > 100 mg/l/72h (*Pseudokirchneriella subcapitata*)

Inorganic chloride compound (<9 %):

LC50 fish : 109 mg/l/48h

Long term Toxicity: No available data

12.2 Persistence and degradabilityIron complex of EDTA in aqueous solution :

BOD5 : 5 mgO₂ /g

COD : 280 mgO₂/g

Not easily biodegradable

12.3 Bioaccumulative potential

No available data

12.4 Mobility in soil

Soluble in water.

12.5 Results of PBT and vPvB assessments

No studies have been carried out on mixture

12.6 Other adverse effects

No further relevant information

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 cardboards, pallet and container according to applicable regulations.
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 : none

Hazard statements :

According to EC Directive 67/548/EC or EC Directive 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 : none

Risk phrases in section 3 :

According to Directive 1999/45/CE :

Xn : nocif

R36 : irritant to eyes

R22 : harmful if swallowed

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.