



SAFETY DATA SHEET

In compliance with EC Regulation No. 1907/2006

Updated on : 14/04/2014 – Version : 2.0

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identification

AGROCEAN 655

Nitrogen, phosphorus and potassium algae based 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, or EC Regulation 1272/2008 : none

2.2. Labeling elements

Labeling according to EC Directive 67/548/EC or EC Directive 1999/45/EC: none

Labeling according to EC Directive 1272/2008 : none

Hazard pictograms : none

Hazard statements : none

Precautionary statements :

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	Composition	Classification of mixture

		or EC Directive 1999/45/EC		
Formaldehyde CAS : 50-00-0 N° INDEX : 605-001-00-5 N°CE : 200-001-8 Enregistrement : 01 - 2119488953-20-xxx	Acute Tox 3 H331 Acute Tox 3 H311 AcuteTox 3 H301 Skin Irrit 2 H315 Eye Irrit 2 H319 Skin Sensib 1 H317 Carc. 2 H351 STOT SE 3 H 335	Xn; R20/21/22 R36/37/38 Carc cat 3; R40, R43	< 0.4 %	No
EDTA copper complex	Acute Tox 4 H302 Eye irrit. 2 H319 STOT RE 2 H373	Xn :R22 Xi : R36/37	<0.15%	No
Potassium nitrate CAS: 7757-79-1 EC: 231-818-8	GHS03 Dgr Ox. Liq. 2, H272	O R8	<15%	No

Other components :

Urea

di-ammonic phosphate

Boron, iron manganese and zinc complex

Laminaria extract (algae)

Laminaria powder

Preparation : Nitrogen (6%), Phosphorus (5% P2O5), Potassium en (5 % K2O)

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. 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

No further information available, emissions resulting from combustion may contain sulfur oxides and nitrogen 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 rubber or latex 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 :

Formaldehyde (< 0.4 %) :

Derived No Effect Level DNEL :

Formaldehyde 50-00-0	Local effects
DNEL worker, systemic long term, dermal	240 mg/kg bw/j
DNEL worker, local effects, inhalation	1 mg/m ³
DNEL consumer local effects, long term, dermal contact	102 mg/ kg bw /j
DNEL Consumer, effets systemic, long term, inhalation	3,2 mg/m ³
DNEL Consumer, effets systemic, long term, ingestion	4,1 mg/ kg bw /j
DNEL worker, systemic effect, long term, inhalation	9 mg/m ³
DNEL worker, long term, local effects, skin contact	0,037 mg/cm ²
DNEL worker, long term, local effects, inhalation	0,5 mg/m ³

DNEL Consumer, long term, local effects, skin contact	0,012 mg/cm ²
DNEL Consumer, long term, local effects, inhalation	0,1 mg/m ³

Predicted No Effect Concentration (PNEC)

Formaldehyde 50-00-0	Local effects
Freshwater	0,47 mg/l
Seawater	0,47 mg/l
Used water treatment plant	0,19 mg/l
Freshwater sediment	2.44 mg/kg dwt

Monoethanolamine (< 5 %) :

VLE : 3 ppm ; VME : 1 ppm (France)

Potassium nitrate (CAS: 7757-79-1) (< 15 %) :

Freshwater - PNEC : 0.45 mg/l

Seawater - PNEC : 0.045 mg/l

8.2. Exposure controls

Monitoring means : occupational health services

Protective equipment

Breathing equipment : P1 filter against 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 brown liquid

Odor : typical

Density : 1.17 – 1.195

pH : 7.3-7.7

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

No available data (no particular risks expected)

10.4 Conditions to avoid

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

10.5 Incompatible materials

Do not store in metal containers

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

Potassium nitrate (CAS: 7757-79-1) (<15 %) :

Oral : DL50 > 3750 mg/kg - Rat

Skin contact : DL50 = 5000 mg/kg - Rat

Inhalation : CL50 = 527 mg/m³ - Rat

EDTA Copper complex (<0.15 %) :

Ingestion DL50 > 1000 mg/kg/rat

Monoethanolamine (<5 %) :

admin, orale (rat) DL50 = 1089 mg/kg, DL 50 dermal (rabbit) = 2504 mg/kg

Inhalation rat CL 50 (4 h) : 1487 mg/m³

Formaldehyde (<0.25 %) :

dermal : DL50 : 270 mg/kg (rabbit)

Urea (<6%) :

DL50= 14300 mg/kg (Rat)

Skin irritation : not classified

Sensitization : no sensitizing effects known

Chronic toxicity : no available data for mixture

Formaldehyde (<0.4 %) :

Oral, US EPA : 20 mg/kg/j (rat, decrease of weight gain, histopathology)

NOAEL : 15 mg/kg/j

Oral, ATSDR : 0.2 mg/kg/j (Gastro)

Orale, Santé Canada : 2.6 mg/L (histopathology, digestive tract).

Inhalation, Health Canada : 0.12 mg/m³

Inhalation, OEHHA : 9 µg/m³

Carcinogenic properties : no available data for mixture

Formaldehyde (<0.4 %) :

INRS, cancer category 3

US-EPA Air unit risk : 1,3.10⁻⁵ (µg/m³)-1 (squamous cell carcinoma)

OEHHA Inhalation unit risk : 6.10⁻⁶ (µg/m³)-1

Mutagenicity : no available data for mixture

Toxicity for reproduction : no available data for mixture

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

No studies have been carried out for the mixture.

Components :

Potassium nitrate (CAS: 7757-79-1) (< 15 %) :

Toxicity for fish : CL50 = 1378 mg/l - 96 h

Toxicity for crustaceans : CE50 = 490 mg/l - Daphnia sp. - 48 h

Toxicity for algae : NOEC = 1700 mg/l

Diammonium phosphate (< 10 %) :

Acute CE50 0,3 mg/l

Urea (< 6%) :

CL50 > 6810 mg/l (*Leuciscus idus melanotus*)

CL50 > 10000 mg/l (*Daphnia magna*; 48 h)

Algae > 10000 mg/l (*scenedesmus quadricauda*; 8 days)

Bacteria > 10000 mg/l (*Pseudomonas putida*; 16 h)

Monoethanolamine (< 5 %) :

Acute toxicity

CL50 96 h *Cyprinus carpio* = 349 mg/l ;

EC50 48 h *Daphnia magna* = 65 mg/l,

EC50 72 h *Pseudokirchneriella subcapitata* = 2.5 mg/l

Chronical toxicity :

NOEC 30 j, *Oryzias latipes* = 1.2 mg/l,

LOEC 30 j *Oryzias latipes* = 3.6 mg/l,

NOEC 21 j *Daphnia magna* = 0.85 mg/l

Formaldehyde (< 0.4 %) :

Fish : CL50 = 100 mg/l (*Lepomis macrochirus*; 96 h)

Daphnia and aquatic invertebraes : CE50 = 42 mg/l (*Daphnia magna*; 24 h) (DIN 38412)

Algae : EC5 = 0,3 mg/l (*Desmodesmus subspicatus* (algues vertes); 24 h)

Bacteria : EC5 = 14 mg/l (*Pseudomonas putida*; 16 h)

12.2 Persistence and degradability

No negative impact expected on wastewater treatment plant. All components are degradable or biodegradable.

12.3 Bioaccumulative potential

No further relevant information

12.4 Mobility in soil

All components are soluble in water

12.5 Results of PBT and vPvB assessments

Not applicable

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 cardboard, pallets, 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 : none

Hazard statements : none

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

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 :

Xn : Harmful

Xi : Irritant

O : oxidizing

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

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

R40: Limited evidence of a carcinogenic effect.

R43: May cause sensitization by skin contact.

R34: Causes burns.

R36/37: Irritating to eyes and respiratory system.

R22: Harmful if swallowed.

R8: Contact with combustible material may cause fire.

H272: May intensify fire; oxidizer

H301 : Toxic if swallowed

H302: Harmful if swallowed

H311 : Toxic in contact with skin

H314 : Causes severe skin burns and eye damage

H315 : Causes skin irritation

H317 : May cause an allergic skin reaction

H319 : Causes serious eye irritation

H331 : Toxic if inhaled

H335: May cause respiratory irritation

H351 : Suspected of causing cancer

H373: May cause damage to organs through prolonged or repeated exposure

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.